

Evaluation of an Educational Video: *What to Expect Your First Day of Chemotherapy.*

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Abstract

Background

Anxiety levels in patients diagnosed with cancer are high at the time of diagnosis. Most of these patients do not know what to expect the first day of chemotherapy treatment. This fear of the unknown can cause psychological distress or anxiety. Anxiety may lead to increased occurrences of side effects from cancer treatments, inability to retain information and overall decreased quality of life. Educational interventions may prove beneficial in this population. Video education is becoming more widely used due to advancements in technology.

Objectives

The primary aim of this study was to evaluate the content of the educational video *What to Expect Your First Day of Chemotherapy*. The secondary aim was to identify additional information that would be identified as potential areas of concerns. That information would be important to address in another video or pamphlet. These newly created media guides would provide an informational reference for the chemotherapy naïve patients. Consequently, these media guides would have the potential to increase the knowledge of the patient and caregivers during medical treatments.

Methods

The current study is a mixed methods pilot study that evaluated the content of the video *What to Expect Your First Day of Chemotherapy*. Prior to the evaluation, a video was designed and created by this researcher. During the planning phase of the video, a focus group was selected. These individuals were chosen based on their ability to provide information on what was important to for a chemotherapy naïve patient or caregiver to understand on the first day of chemotherapy.

Following post-production, a post-viewing survey was designed and created. This survey was reviewed and approved by a clinical statistician. Similarly, a convenience sampling was used for the survey participants. As with the preproduction focus group, participants within the community were chosen based on common experiences. These included healthcare professionals or staff, former or current oncology patients and individuals who were directly involved with a friend or relative who had received chemotherapy.

Findings

The results were overwhelmingly positive towards the video. Descriptive statistics indicate that the video answered the key questions. All 22 of the content related questions received mean scores greater than 4.0 based on the five-point Likert scale, (4.0 = agree). All 22 of the relevancy questions received mean scores of greater than 4.0 based on the five-point Likert Scale, (4.0 = relevant). Three open ended questions were asked to allow the participant to express and provide an opportunity to expand on their answers.

Key words: chemotherapy, education, video, cancer

Evaluation of an educational video: *What to Expect Your First Day of Chemotherapy*

According to the American Cancer Society (2015), over 1.6 million new cases of cancer were diagnosed in 2015. Anxiety levels in individuals diagnosed with cancer are high, with the highest levels of anxiety occurring at the time of diagnosis (Gil, Costa, Hilker & Benito, 2012). Many people diagnosed with cancer receive chemotherapy as part of their treatment. However, chemotherapy naïve patients may not be familiar with the treatment environment. This fear of the unknown causes psychological distress or anxiety. Interventions used to decrease anxiety in this population are necessary to improve the overall patient experience and potentially improve outcomes of treatment.

Patients who have been diagnosed with cancer may be facing a potentially life threatening or life changing condition. They are introduced to new challenges and new experiences. At the time of diagnosis, the individual is provided with large amounts of information. They may be told that possible further testing may be needed. Sometimes the information is verbal and sometimes it is written. Then again on the first day of the chemotherapy treatment, the patient is provided with more information.

Significance of Topic

A problem or concern exists if the patient or their caregivers are not prepared to deal with the potentially life threatening diagnosis of cancer and life changing experience of receiving chemotherapy. It is important that patients receiving chemotherapy for the first time are provided with as many educational tools as possible. An important goal in this medical chemotherapeutic scenario is to decrease a chemotherapy naïve patient's or caregiver's anxiety by increasing their knowledge. Pamphlets and informational sheets are oftentimes provided. Videos were virtually

non-existent for this population or for those individuals with limited health literacy.

This researcher believes that an exchange of information by use of an educational tool may occur with a video that addresses what to expect on the first day of the chemotherapy. This study will evaluate the educational video titled, *What to Expect Your First Day of Chemotherapy*.

This manuscript will begin by discussing the design and creation of a video that addresses what to expect on the first day of chemotherapy. The video was created to assist these patients in referencing areas of potential concerns. By providing information as a means to increase knowledge, a consideration began in creating, designing and developing an interventional tool in the form of a video. The goal of the video was to increase the chemotherapy naïve patient's knowledge regarding the process of receiving chemotherapy and become a reference for them with the hope of decreasing the anxiety levels for both the patient and their caregivers.

On this first day of chemotherapy, a multitude of questions and answers occur. As stated earlier, an area of topic is the chemotherapy drug being administered. In the discussion of the chemotherapy drug used, one of the areas that is addressed includes the possible side effects that are commonly experienced with the agent prescribed. Other medical and physiological issues are discussed. Additional questions may also be forthcoming. For example, how often blood work will be ordered, and how many times the treatments will occur are often questioned by the patient or caregiver.

Patients and their caregivers need to be able to reference information. They need to understand what will occur. Even though the medical personnel will address the importance of symptomatic changes and post therapy responses, patient and their caregivers may not be hearing what is being said. They need to know when and how to report symptoms to the oncologist.

Body of Literature

There is an abundance of literature on anxiety in cancer patients. Measuring anxiety in cancer patients is difficult and complex. According to Merriam-Webster (2015) the definition of anxiety is an abnormal and overwhelming sense of apprehension and fear. This is often marked by physiological signs, and self-doubt about one's capacity to cope. There are many confounding factors that influence the level of anxiety experienced by patients diagnosed with cancer. Anxiety may lead to an increased experience of side effects from cancer treatments, inability to retain information and overall decreased quality of life (Gil, Costa, Hilker & Benito, 2012; Pedersen, Sawatzky & Hack, 2010). Patients are often fearful of suffering and the possibility of dying after being diagnosed with cancer (Gil, Costa, Hilker & Benito, 2012). Another difficult issue for the patient is that they believe that they are in a situation where they have not been properly prepared for nor have any control over. Research has shown that stressful situation videos that portray and simulate behaviors with illustrated scenarios may reduce preparatory anxiety in patients (Krouse, 2001).

Much of the current literature regarding alleviating anxiety in cancer patients evaluates the use of educational interventions. The research is comprised of mostly systematic literature reviews (Rigdon, 2010; Prouse, 2010). However, there are few research studies that have evaluated the use of a video to educate and inform chemotherapy naïve cancer patients of what to expect the first day of treatment. One quality improvement study by Mann (2010) provided evidence that the implementation of education intervention between the time of diagnosis and treatment decreased anxiety in cancer patients. An educational video on what to expect the first day of treatment may alleviate some of the anxiety of chemotherapy naïve cancer patients. This could enable the patient to better retain the information provided the first day of treatment. The

retention of this information will be useful for the patient so that they may better understand what to expect from their treatment regimen. A video may be viewed in a familiar environment and during a convenient time.

The method used for the educational intervention is important to consider. Individuals learn in various ways. Most of the education that is currently provided for the chemotherapy patient is printed in the patient's preferred language. The health literacy of each patient must be considered if this method is used. Generally, the printed information should be written at a fifth to sixth grade level. With a large portion of all American adults having difficulty understanding medical and health information, understanding is a common problem.

Cancer patients often search for information regarding their diagnosis, treatment and symptoms associated with their particular cancer (Frentsos, 2015). Many patients rely on discussions during encounters with their physician for education about their health (McCarthy et al. (2012). It is also known that patients turn to the Internet for information regarding health and treatments. Consequently, it is important that the patient is accessing reliable and accurate medical informational sites. The concern is that the medical information is not accurate (Davies & Yeoh, 2012; Finney Rutten et al., 2014).

As previously discussed, the level of literacy for all patients needs to be considered if printed material is used. As healthcare professionals we need to ensure that the patient is provided with the appropriate education to meet their learning needs. According to Ferguson (2012), the use of a video can be beneficial to patients with limited health literacy. By providing cancer patients with appropriate educational interventions, providers ensure that the intervention delivers information that will be best utilized by this population. Additionally, methods of

educational and informational exchange are important as not all patients learn in the same manner.

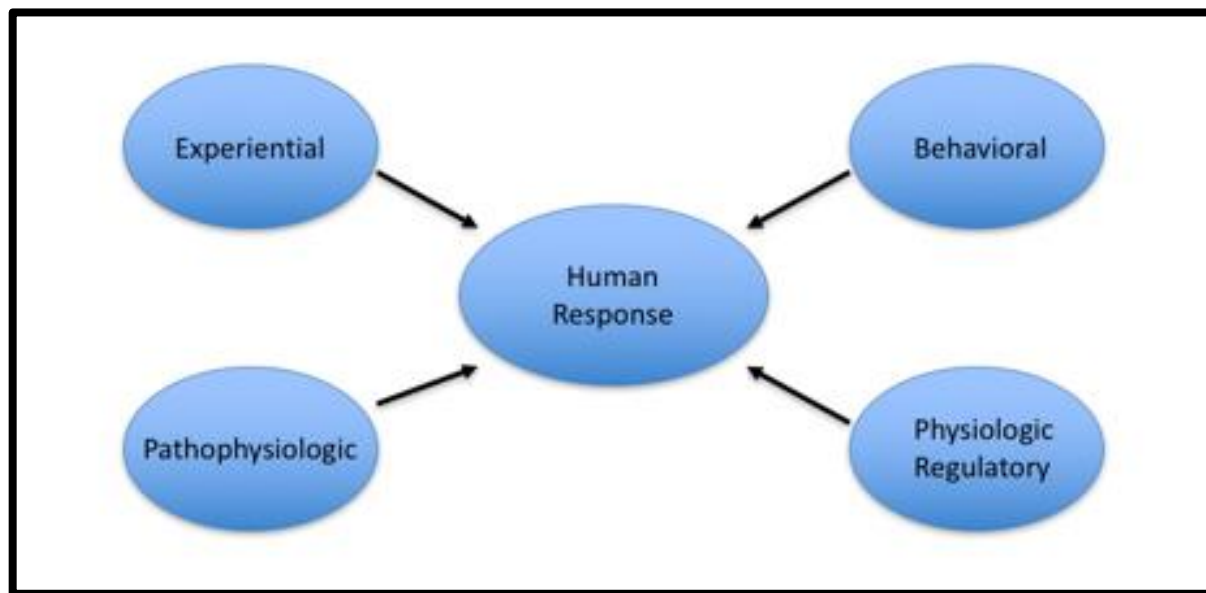
In order to make the most of any form of education, it is important to allow the patient to be more familiar with the environment in which treatment will be received. Garcia (2014) found that orienting the patient to the treatment area prior to the administration of chemotherapy helped to decrease anxiety in cancer patients.

Some healthcare facilities have created videos that provide information about procedures and treatments. Many of these videos are accessible to the general public. However, there is a limited amount of research that evaluates the content of an education video. Most testing for content is performed on educational tests or other printed materials.

Theoretical Framework

The Human Response to Illness theory was used to guide this research. According to the Human Response to Illness there are four categories of human responses: physiologic regulatory, pathophysiologic, experiential and behavioral (Figure 1). This framework provides a structure for evaluating the stress response in humans, and the negative impact stress can have on the individual facing illness. The framework is useful in measuring the effectiveness of interventions in preventing, or modifying damaging human response to illness (Hansen & Sawatzky, 2008; Mitchell, Gallucci & Fought, 1991).

Figure 1. Human Response to Illness Theory



Purpose of the Study

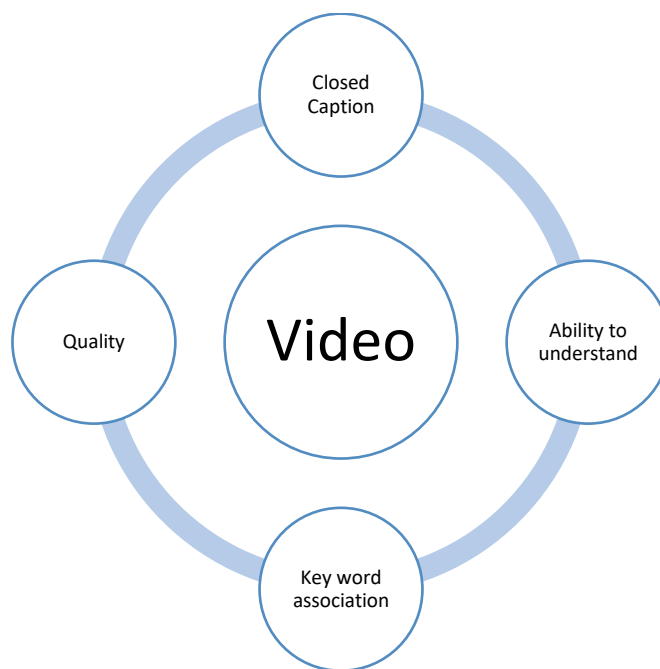
The primary aim of this study is to evaluate the content of the educational video *What to Expect Your First Day of Chemotherapy*. The secondary aim of the study is to determine what additional information may need to be included for the chemotherapy naïve cancer patient preparing for treatment.

Methods

General Design

The current study is a mixed methods pilot study that evaluated the content of the educational video *What to Expect Your First Day of Chemotherapy*. A focus group was used prior to the production of the video to discover what themes and issues or concerns needed to be addressed in the video. The resulting product is an educational video that has the potential to prepare and educate newly diagnosed cancer patients known as the chemotherapy naïve patient. The video was created to allow the viewer to have a visual on what to expect on the first day of chemotherapy treatment. Consideration was given for the viewers in regards to the visual quality open caption component of the video (Figure 2.)

Figure 2.



Prior to the use of the video for the intended target audience of chemotherapy naïve cancer patients, the video needed to be evaluated. A post-evaluation survey of the video was conducted to determine if the content areas were included, and if the themes were relevant to the audience. IRB approval for the survey of the post production video was obtained through Robert Morris University.

Educational Video

The educational video *What to Expect Your First Day of Chemotherapy* provided an overview of what the newly diagnosed cancer patient may expect the first day of treatment. The video was created and designed by the researcher with a grant provided by the Research in Simulation Education (RISE) Center at Robert Morris University. The video is less than 12 minutes in duration.

The main topics and issues of concerns which were addressed in the video were identified by the participants in the focus group. The participants included healthcare professionals or staff, former or current oncology patients and individuals who were directly involved with a friend or relative who had received chemotherapy. The issues identified are included in Figure 1.

Necessary information concerning the treatment itself needed to be addressed. They included the route of administration of chemotherapy, insertion of an intravenous catheter or access of a central venous access device. Information regarding any normal and abnormal sensations while chemotherapy and any pre-medications were infusing needed to be addressed.

Table 1: Areas of Concern and Issues

Home	Treatment Center	Triage Area	Treatment Area	Discharge
Type of clothing to wear	Registration	Vital signs	Blood Work	Follow-up
Eating breakfast	Name: Identification Band	Height	Pre-medications	
Medications	Documentation	Weight	Intra-venous access	
What to bring to treatment center	Blood work	Pain	How will I feel	

It should be noted that the video does not go into detail regarding obtaining IV access, nor does it show the process of obtaining IV access. Intra-venous access may need to be addressed. Not all patients would have a central venous access device prior to their first treatment.

Post-viewing Survey

The post-viewing survey was developed with the use of Qualtrics survey software. The survey consisted of six demographic questions, and three open ended questions that allowed for the respondents' opinions and suggestions for the video content. The survey also consisted of 22 questions that pertained to the themes that were to be included in the video. The 22 questions had two parts for each question. The first part of the question asked if the theme was included in the video. The response was rated on a Likert scale with 1 being strongly disagree that the theme was included, and 5 being strongly agree that the theme was included. The respondent was then asked to rate the relevance of the theme on a Likert scale with 1 being not relevant, and 5 being highly relevant to include in the video (Appendix C).

Results

Descriptive statistics indicate that the video answered the key questions. All 22 content questions received mean scores greater than 4.0 agree on the five-point Likert Scale (4.0 = agree). Moreover, a series of single-sample *t*-tests indicates that the first seven questions listed in Table 2 did not differ significantly from 5.0 (5.0 = strongly agree), $p > 0.05$. Finally, the first seven questions in Table 2 scored significantly greater means than the last question (diet), $p < 0.05$.

Descriptive statistics indicate that the key questions answered by the video were relevant. All 22 “relevancy” questions received mean scores greater than 4.0 (4.0 = relevant on the five-point Likert Scale). In addition, a series of single-sample *t*-tests indicates that the first four questions listed in Table 3 did not differ significantly from 5.0 (5.0 = strongly agree), $p > 0.05$.

Table 2: Descriptive Statistics of Content Questions of Post-Viewing Survey

	N	Minimum	Maximum	Mean	Std. Deviation
Should I take my prescription meds the day of treatment?	22	4.00	5.00	4.9091	.29424
What should I wear to my treatment?	22	3.00	5.00	4.8636	.46756
ID compliance was addressed?	22	3.00	5.00	4.8636	.46756
Why do I need lab work before treatment?	22	3.00	5.00	4.8636	.46756
Did the video provide clear/direct answers?	22	3.00	5.00	4.8182	.50108
Why is weight needed at every visit?	22	4.00	5.00	4.8182	.39477
Can I use the bathroom?	22	3.00	5.00	4.8182	.50108
Health literacy standards met?	22	4.00	5.00	4.7727	.42893
Can I take 'as needed' meds?	22	3.00	5.00	4.7727	.52841
Height, weight, vital signs?	22	4.00	5.00	4.7727	.42893
Are there meds I will need to take before treatment?	22	4.00	5.00	4.7727	.42893
Does the video refrain from using medical jargon?	22	3.00	5.00	4.6818	.56790
How will I feel during treatment?	22	2.00	5.00	4.6818	.71623
How long will I be at the center?	22	3.00	5.00	4.6818	.64633
How often do I need to have lab work?	22	3.00	5.00	4.6818	.56790
Why are pre-meds necessary?	22	2.00	5.00	4.6818	.71623
Open captions for hearing impairment?	22	3.00	5.00	4.6364	.72673
Will I be sick during my treatment?	22	2.00	5.00	4.5909	.79637
Will I be cold?	22	2.00	5.00	4.5455	.80043
Can I eat?	22	1.00	5.00	4.4545	1.18431
Were possible wait times given?	22	2.00	5.00	4.4091	.73414
Is my diet restricted?	22	1.00	5.00	4.3182	1.08612
Valid N (listwise)	22				

Table 3: Descriptive Statistics of Relevancy Questions of Post-Viewing Survey

	N	Minimum	Maximum	Mean	Std. Deviation
Should I take my prescription meds the day of treatment relevance.	22	4.00	5.00	4.9091	.29424
Why do I need lab work before treatment relevance.	22	4.00	5.00	4.8636	.35125
Can I take 'as needed' meds relevance.	22	4.00	5.00	4.8636	.35125
ID compliance was addressed relevance.	22	4.00	5.00	4.8182	.39477
How will I feel during treatment relevance.	22	3.00	5.00	4.7727	.52841
How often do I need to have lab work relevance.	22	4.00	5.00	4.7727	.42893
Why are pre-meds necessary relevance.	22	4.00	5.00	4.7727	.42893
Are there meds I will need to take before treatment relevance.	22	4.00	5.00	4.7727	.42893
Will I be sick during my treatment relevance.	22	3.00	5.00	4.7273	.55048
Height, weight, vital signs relevance.	22	4.00	5.00	4.7273	.45584
Is my diet restricted relevance	22	4.00	5.00	4.7273	.45584
Why is weight needed at every visit relevance.	22	3.00	5.00	4.7273	.55048
Can I eat relevance?	22	4.00	5.00	4.7273	.45584
Did the video provide clear/direct answers relevance.	22	4.00	5.00	4.6818	.47673
Health literacy standards met relevance.	22	4.00	5.00	4.6818	.47673
What should I wear to my treatment relevance.	22	3.00	5.00	4.6818	.56790
How long will I be at the center relevance.	22	3.00	5.00	4.6364	.58109
Can I use the bathroom relevance.	22	3.00	5.00	4.6364	.65795
Open captions for hearing impairment relevance.	22	3.00	5.00	4.5909	.66613
Does the video refrain from using medical jargon relevance.	22	3.00	5.00	4.5455	.67098
Were possible wait times given relevance.	22	3.00	5.00	4.5455	.59580
Will I be cold relevance.	22	2.00	5.00	4.5455	.80043
Valid N (listwise)	22				

A series of independent *t*-tests was conducted to evaluate different responses to content and relevancy between those who have experienced chemotherapy and those who have not. Table 4 provides the output for the tests. Significant differences are *italicized*. Table 4 provides the means for the two groups on all 44 questions. Differences in means are italicized in bold print. The pattern is consistent for all differences: Individuals with chemotherapy experience scored lower means than those without chemotherapy experience. Because the sample size is extremely low ($n = 2$) for individuals with chemotherapy experience, these differences should be interpreted cautiously, if at all.

Approximately 9% of the participants had received chemotherapy in the past and 91% had never received chemotherapy. However almost 82% of the participants had been associated personally with someone who had received chemotherapy in the past, with about 18% who had never been associated with someone personally that had received chemotherapy.

Table 4: Independent Samples Test

	t-test for Equality of Means				
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Can I eat?	.560	20	.582	.50000	.89303
Can I eat relevance	2.697	20	.014	.80000	.29665
Is my diet restricted?	1.124	20	.274	.90000	.80047
Is my diet restricted relevance	.731	20	.473	.25000	.34187
Should I take my prescription meds the day of treatment?	-.449	20	.658	-.10000	.22249
Should I take my prescription meds the day of treatment relevance.	-.449	20	.658	-.10000	.22249
Can I take 'as needed' meds?	-.629	20	.537	-.25000	.39765
Can I take 'as needed' meds relevance.	-.566	20	.577	-.15000	.26481
Are there meds I will need to take before treatment?	3.210	20	.004	.85000	.26481
Are there meds I will need to take before treatment relevance.	3.210	20	.004	.85000	.26481
Why are pre-meds necessary?	1.448	20	.163	.75000	.51781
Why are pre-meds necessary relevance.	3.210	20	.004	.85000	.26481
Why do I need lab work before treatment?	1.163	20	.258	.40000	.34387
Why do I need lab work before treatment relevance.	-.566	20	.577	-.15000	.26481
How often do I need to have lab work?	.466	20	.646	.20000	.42924
How often do I need to have lab work relevance	.940	20	.358	.30000	.31898
Height, weight, vital signs?	3.210	20	.004	.85000	.26481
Height, weight, vital signs relevance.	2.697	20	.014	.80000	.29665
Why is weight needed at every visit?	4.045	20	.001	.90000	.22249
Why is weight needed at every visit? relevance.	4.661	20	.000	1.35000	.28961
ID compliance was addressed?	3.335	20	.003	.95000	.28482
ID compliance was addressed relevance.	1.209	20	.241	.35000	.28961
What should I wear to my treatment?	3.335	20	.003	.95000	.28482
What should I wear to my treatment relevance.	1.886	20	.074	.75000	.39765
How will I feel during treatment?	.369	20	.716	.20000	.54245

Note. df = Degrees of freedom.

Table 4: Independent Samples Test

	t-test for Equality of Means				
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
How will I feel during treatment relevance.	.758	20	.457	.30000	.39592
Will I be sick during my treatment?	.165	20	.870	.10000	.60477
Will I be sick during my treatment relevance.	.603	20	.553	.25000	.41458
Will I be cold?	2.086	20	.050	1.15000	.55125
Will I be cold relevance.	3.580	20	.002	1.70000	.47487
Can I use the bathroom?	7.261	20	.000	1.45000	.19969
Can I use the bathroom relevance.	3.015	20	.007	1.25000	.41458
How long will I be at the center?	3.284	20	.004	1.30000	.39592
How long will I be at the center relevance.	3.656	20	.002	1.25000	.34187
Were possible wait times given?	.820	20	.422	.45000	.54875
Were possible wait times given relevance.	1.387	20	.181	.60000	.43243
Health literacy standards met?	-.778	20	.445	-.25000	.32113
Health literacy standards met relevance.	.556	20	.584	.20000	.35951
Does the video refrain from using medical jargon?	-.825	20	.419	-.35000	.42441
Does the video refrain from using medical jargon relevance.	1.220	20	.237	.60000	.49193
Open captions for hearing impairment?	-.734	20	.471	-.40000	.54498
Open captions for hearing impairment relevance.	.198	20	.845	.10000	.50572
Did the video provide clear/direct answers?	-.529	20	.603	-.20000	.37815
Did the video provide clear/direct answers relevance.	2.335	20	.030	.75000	.32113

Note. df = Degrees of freedom.

Table 5: Group Statistics

	Personal chemo experience	N	Mean	Std. Deviation	Std. Error Mean
Can I eat?	No	20	4.5000	1.23544	.27625
	Yes	2	4.0000	.00000	.00000
Can I eat relevance?	No	20	4.8000	.41039	.09177
	Yes	2	4.0000	.00000	.00000
Is my diet restricted?	No	20	4.4000	.99472	.22243
	Yes	2	3.5000	2.12132	1.50000
Is my diet restricted relevance	No	20	4.7500	.44426	.09934
	Yes	2	4.5000	.70711	.50000
Should I take my prescription meds the day of treatment?	No	20	4.9000	.30779	.06882
	Yes	2	5.0000	.00000	.00000
Should I take my prescription meds the day of treatment relevance.	No	20	4.9000	.30779	.06882
	Yes	2	5.0000	.00000	.00000
Can I take 'as needed' meds?	No	20	4.7500	.55012	.12301
	Yes	2	5.0000	.00000	.00000
Can I take 'as needed' meds relevance.	No	20	4.8500	.36635	.08192
	Yes	2	5.0000	.00000	.00000
Are there meds I will need to take before treatment?	No	20	4.8500	.36635	.08192
	Yes	2	4.0000	.00000	.00000
Are there meds I will need to take before treatment relevance.	No	20	4.8500	.36635	.08192
	Yes	2	4.0000	.00000	.00000
Why are pre-meds necessary?	No	20	4.7500	.71635	.16018
	Yes	2	4.0000	.00000	.00000
Why are pre-meds necessary relevance.	No	20	4.8500	.36635	.08192
	Yes	2	4.0000	.00000	.00000
Why do I need lab work before treatment?	No	20	4.9000	.44721	.10000
	Yes	2	4.5000	.70711	.50000
Why do I need lab work before treatment relevance	No	20	4.8500	.36635	.08192
	Yes	2	5.0000	.00000	.00000
How often do I need to have lab work?	No	20	4.7000	.57124	.12773
	Yes	2	4.5000	.70711	.50000
How often do I need to have lab work relevance	No	20	4.8000	.41039	.09177
	Yes	2	4.5000	.70711	.50000
Height, weight, vital signs?	No	20	4.8500	.36635	.08192
	Yes	2	4.0000	.00000	.00000
Height, weight, vital signs relevance.	No	20	4.8000	.41039	.09177
	Yes	2	4.0000	.00000	.00000

Table 5: Group Statistics

	Personal chemo experience	N	Mean	Std. Deviation	Std. Error Mean
Why is weight needed at every visit?	No	20	4.9000	.30779	.06882
	Yes	2	4.0000	.00000	.00000
Why is weight needed at every visit relevance.	No	20	4.8500	.36635	.08192
	Yes	2	3.5000	.70711	.50000
ID compliance was addressed?	No	20	4.9500	.22361	.05000
	Yes	2	4.0000	1.41421	1.00000
ID compliance was addressed relevance.	No	20	4.8500	.36635	.08192
	Yes	2	4.5000	.70711	.50000
What should I wear to my treatment?	No	20	4.9500	.22361	.05000
	Yes	2	4.0000	1.41421	1.00000
What should I wear to my treatment relevance.	No	20	4.7500	.44426	.09934
	Yes	2	4.0000	1.41421	1.00000
How will I feel during treatment?	No	20	4.7000	.73270	.16384
	Yes	2	4.5000	.70711	.50000
How will I feel during treatment relevance.	No	20	4.8000	.52315	.11698
	Yes	2	4.5000	.70711	.50000
Will I be sick during my treatment?	No	20	4.6000	.82078	.18353
	Yes	2	4.5000	.70711	.50000
Will I be sick during my treatment relevance.	No	20	4.7500	.55012	.12301
	Yes	2	4.5000	.70711	.50000
Will I be cold?	No	20	4.6500	.74516	.16662
	Yes	2	3.5000	.70711	.50000
Will I be cold relevance.	No	20	4.7000	.57124	.12773
	Yes	2	3.0000	1.41421	1.00000
Can I use the bathroom?	No	20	4.9500	.22361	.05000
	Yes	2	3.5000	.70711	.50000
Can I use the bathroom relevance.	No	20	4.7500	.55012	.12301
	Yes	2	3.5000	.70711	.50000
How long will I be at the center?	No	20	4.8000	.52315	.11698
	Yes	2	3.5000	.70711	.50000
How long will I be at the center relevance.	No	20	4.7500	.44426	.09934
	Yes	2	3.5000	.70711	.50000
Were possible wait times given?	No	20	4.4500	.75915	.16975
	Yes	2	4.0000	.00000	.00000
Were possible wait times given relevance.	No	20	4.6000	.59824	.13377
	Yes	2	4.0000	.00000	.00000
Health literacy standards met?	No	20	4.7500	.44426	.09934
	Yes	2	5.0000	.00000	.00000

Table 5: Group Statistics

	Personal chemo experience	N	Mean	Std. Deviation	Std. Error Mean
Health literacy standards met relevance.	No	20	4.7000	.47016	.10513
	Yes	2	4.5000	.70711	.50000
Does the video refrain from using medical jargon?	No	20	4.6500	.58714	.13129
	Yes	2	5.0000	.00000	.00000
Does the video refrain from using medical jargon relevance.	No	20	4.6000	.68056	.15218
	Yes	2	4.0000	.00000	.00000
Open captions for hearing impairment?	No	20	4.6000	.75394	.16859
	Yes	2	5.0000	.00000	.00000
Open captions for hearing impairment relevance.	No	20	4.6000	.68056	.15218
	Yes	2	4.5000	.70711	.50000
Did the video provide clear/direct answers?	No	20	4.8000	.52315	.11698
	Yes	2	5.0000	.00000	.00000
Did the video provide clear/direct answers relevance.	No	20	4.7500	.44426	.09934
	Yes	2	4.0000	.00000	.00000

Open-ended Questions

In a situation when someone has been diagnosed with cancer what other things would you change or include in this video to help address potential concerns?

There were 15 participants that responded to this question. Six (40%) of the responses stated that there was nothing else that should be included for the newly diagnosed cancer patient. Nine (60%) of the responses did have recommendations for additional information. The primary areas that were recommended included the addition of a social worker; financial and emotional support for the patient; information about side effects from treatment; and the need for increased privacy during treatment.

How can a health system or practice better support the needs of a patient in this situation?

There were 17 participants that responded to this question. The primary areas that the participants stated that a health system could provide to the newly diagnosed cancer patient were: the inclusion of a social worker; reassurance to the patient; provide support groups; give additional education prior to treatment with chemotherapy; and increased privacy.

Do you have any other thoughts or comments regarding this video, or survey?

The responses to this question were overwhelmingly positive. Many responses considered the video “excellent” and “very good”. Two participants stated that the video would benefit the patients treated at their facilities. There was one response that stated that the video did not include enough focus or time on the actual chemotherapy treatment.

Discussion

It is important to determine content validity of the video prior to its use with patients. Content validity was established during the development of the video, and was further validated by the participants that reviewed the video. Content validity is useful in determining if the video is relevant to the intended audience and if the intended audience will find the content useful. As this video was created to educate newly diagnosed cancer patients on what to expect the first day of treatment with chemotherapy, the participants that reviewed the video consisted of individuals that work within the oncology field, have experience receiving chemotherapy or know someone that has received chemotherapy.

Limitations

There were several limitations associated with this study. The study was conducted in a relatively small geographic area. Both the focus group and the participants were from the same geographic area in Western Pennsylvania.

The sampling was both convenient and purposeful. The sample population was chosen because of their experience with either chemotherapy or patients who receive chemotherapy. All participants were known professionally or personally by the investigators. Due to this factor, the sample was not randomly selected. This could have resulted in some bias which could have changed the post production survey results.

Another limitation of this study was that the sample size was comprised of 22 participants. This is a small sample size. Of the 22 participants, only two had received chemotherapy in the past. A greater number of chemotherapy naïve cancer participants may have indicated other areas of content concern and relevancy which had not been identified. Data analysis with a greater number of participants could have shown other results.

Time constraint was a factor in this study. The collection of data took place over one month. A longer collection time may have resulted in more responses from those invited to participate.

Potential Implications for Nursing Practice

The addition of an educational intervention for newly diagnosed cancer patient who have never experienced chemotherapy may improve the overall patient experience. Educational interventions have been shown to decrease anxiety in patients that are facing a serious illness. This decreased anxiety will allow the patient to retain important information more effectively during the first treatment day. This may lead to a decrease in adverse effects and better outcomes

from the treatment. The improvement of the patient's psychosocial status will benefit both the patient and the organization providing the treatment.

Further research is necessary to ensure that each cancer patient is provided with a more individualized education plan throughout treatment. The patient's psychological well-being should be monitored as closely as their physical condition. This study provides the foundation for further educational resources for oncology patients.

Acknowledgments

Partial funding for the video production provided by a grant awarded by Robert Morris University Regional Research and Innovation in Simulation Education (RISE) Center. This project was the first recipient of this grant. I would like to thank the RISE Center for the use of its facilities and staff for assistance in the production of the video.

Thank you to Dr. Angela Macci Bires for her unwavering support of this project.

Thank you to Dr. Thomas Cline for his expertise in statistics and his willingness to answer any and all questions asked of him.

Thank you to Dr. Susan VanCleve, Dr. Judith Kaufmann and Dr. Terri Devereaux for their advisement, assistance and support.

A thank you to everyone that made the video production and the project contained in this manuscript possible. I truly appreciate all of your assistance!

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Appendix A
Invitation to Participate



School of Nursing and Health Sciences
Robert Morris University
6001 University Blvd, Moon Township, PA 15108

Hello, my name is Tiffany S. Koss and I am currently enrolled in a doctorate of nursing program at Robert Morris University. As a requirement for this program, I am to complete a research project.

You are being invited to participate in this study because you are an expert in your related profession, are a healthcare provider, you or a loved one has received treatment with chemotherapy. I received your contact information either because I am currently or previously a colleague of yours, or a colleague of mine provided me with your contact information.

I value the insight that you can provide for this project. Your participation will help determine if this educational video will be a useful intervention for future oncology patients and their care givers.

For your participation in this project I ask that you view the educational video and answer a post-viewing survey. The video is less than 12 minutes long. There are two versions of the video. The only difference between the two videos is that one has open captions for hearing impaired individuals. The survey should not take longer than 15 minutes of your time.

To view the educational video, open the attachment to this email which contains a link to view the video on Google Drive. Once you have reviewed the video, please click on the survey link or complete the paper survey. Please complete and return the survey by Wednesday, March 1, 2017.

If you have any questions or concerns regarding this project, please do not hesitate to contact me via email or telephone. You may also contact Robert Morris University directly if needed.

Thank you for your time,

Tiffany S. Koss DNP(c), RN



Robert Morris University
Academic Affairs
irb@rmu.edu
412-397-6227

Appendix B
Informed Consent Waiver Form



School of Nursing and Health Sciences
Robert Morris University
6001 University Blvd, Moon Township, PA 15108

Informed Consent Waiver Form

Title of study: Evaluation of an educational video; *What to expect your first day of chemotherapy.*

Principal Investigator: Tiffany S. Koss DNP(c), RN
Advisor: Angela Bires, Ed.D

I agree to participate in the above study. I will view the educational video and answer a post-viewing survey.

I understand that my participation is voluntary and I can withdraw at any time without consequence. I am not obligated to answer any question that I consider invasive. I understand there is no compensation for participation.

I understand that all personal data and information is strictly confidential and the primary investigator will use data for purposes of the study only. I understand that I may withdraw my consent to participate at any time.

I understand that by progressing to the link on Google Drive: [Video](#) and [Video with Open Captions](#) and completing the paper or electronic survey at Qualtrics [Post-viewing Survey](#) I am granting electronic consent to the primary investigator.

For any questions or concerns regarding your participation, please contact Tiffany S. Koss at [REDACTED], Dr. Angela Bires at [REDACTED] or Academic affairs at irb@rmu.edu

Thank you.
Tiffany S. Koss DNP(c), RN

Q3 Pre-Medications

[illegible]

Q4 Lab work

[illegible]

Q5 Triage Process

[illegible]

Q6 Identification

[illegible]

Q7 Clothing

[illegible]

Q8 Changes in Physical Health

[illegible]

Q9 Comfort Level

[illegible]

Q11 Content and Clarity

[illegible]

Q12 In a situation when someone has been diagnosed with cancer, what other things would you change or include in this video to help address potential concerns?

Q13 How can a health system or practice better support the needs of a patient in this situation?

Q14 Do you have any other thoughts or comments regarding this video, or survey?

Q15 Gender

- ☐ Male (0)
- ☐ Female (1)

Q16 What is your highest level of education completed?

- ☐ High school graduate, diploma or the equivalent (1)
- ☐ Associate degree (2)
- ☐ Bachelor's degree (3)
- ☐ Master's degree (4)
- ☐ Professional degree (5)
- ☐ Doctorate degree (6)
- ☐ Post Doctorate (7)

Q17 Approximately how many years have you worked in your current professional occupation?

- ☐ 0-5 years (1)
- ☐ 6-10 years (2)
- ☐ 11-15 years (3)
- ☐ 16-20 years (4)
- ☐ 21 + years (5)

Q18 Have you had any personal experiences in receiving chemotherapy?

- ☐ Yes (1)
- ☐ No (0)

Q19 Have you been associated personally with anyone (relative, close friend, significant other, etc.) receiving chemotherapy?

- ☐ Yes (1)
- ☐ No (0)

Q20 Do you currently work with chemotherapy patients?

- ☐ Yes (1)
- ☐ No (0)