

A Pilot Study to Determine the Effect of an Educational DVD in Philippine Languages on Cancer Clinical Trial Participation among Filipinos in Hawai'i

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Abstract

We conducted an experimental pilot study in an oncology clinic in Honolulu, Hawai'i to determine the effect of a culturally-tailored educational DVD on cancer clinical trial participation among Filipino cancer patients. Thirty-seven patients participated in the study, with 17 randomized into the control group (ie, usual education) and 20 into the intervention group (ie, usual education plus educational DVD). Participants completed pre- and post-educational questionnaires with items asking about understanding of several cancer topics, behavioral outcomes, and attitudes regarding several treatment and physician related topics. A Fisher's exact test was conducted to explore the association between enrollment into a clinical trial and group assignment. General linear models were created to determine significant differences between study groups in post-education response scores for each questionnaire item after controlling for age, gender, education, and pre-education response scores. Two participants from the control group and three participants from the intervention group enrolled into clinical trials. Results showed no significant association between clinical trial enrollment and study group assignment ($P > .99$). A significant difference was found between study groups on surety of joining the clinical trial suggested to them ($P = .013$). A multilingual educational DVD to supplement clinical trial education may positively influence Filipino cancer patients to move forward with the decision to join a cancer clinical trial. However, health literacy may serve as a major barrier to actual enrollment into the particular clinical trial available to a patient.

Keywords

Filipino, Hawai'i, Cancer Clinical Trial, DVD, Language Barrier

Introduction

As the largest Asian ethnic group in the state of Hawai'i,¹ Filipinos are burdened by cancer disparities. Between 2003 and 2011, cancer was the leading cause of death among Filipino women and the second leading cause of death among Filipino men.² In Hawai'i, Filipino men and women have been shown to suffer disproportionately from particular cancers compared to other major ethnic groups. For example, Filipino men in Hawai'i exhibited the highest prostate cancer incidence (146.7 per 100,000) compared to other major ethnic groups, and Filipino women in Hawai'i have been shown to have the highest cervical cancer incidence (10.4 per 100,000) compared to women in other major ethnic groups.³

Despite the benefits of clinical trials, including finding innovative and effective cancer treatments, previous research has shown that approximately 2% of participants in cancer clinical trials in the United States were Asian Americans.^{4,5} The participation of Filipinos in cancer clinical trials is assumed to be even lower. Several factors may contribute to the lack of

participation among Asian Americans, such as lack of awareness and the view of clinical trials as an experiment.⁶ Limited English proficiency may further contribute to the disparities seen in cancer clinical trial participation among Filipinos and has been shown to negatively impact cancer screening,⁷ health care access,⁸ and quality of care.^{9,10} In Hawai'i, Filipinos make up not only the largest percentage of non-English speakers at home¹¹ but also the largest percentage of limited English proficient individuals.¹²

In order to address the negative impact limited English proficiency may have on the treatment and care of Filipino cancer patients, an educational DVD in two Philippine languages, Ilokano and Tagalog, was developed discussing common cancers, stories of survival, general cancer knowledge, and treatment options.¹³ As an extension of that endeavor, a second educational DVD about cancer clinical trials was developed. The purpose of this pilot study was to explore the effect of the DVD on clinical trial participation among Filipino cancer patients living in Hawai'i.

Methods

Cancer Clinical Trial Educational DVD in Two Philippine Languages

Drawing principles from Community Based Participatory Research practices,¹⁴ the DVD was developed with considerable input received from the Filipino community. The DVD's script and storyboard were developed and revised based on input received from bilingual Filipino community members and a Filipino oncologist. The DVD features Filipino health care professionals, cancer survivors, and their family members, as well as film locations strategically chosen due to their prominence within Hawai'i's Filipino community (eg, a neighborhood grocery store and a Filipino community center). The DVD includes six video sections presented in both Tagalog and Ilokano discussing the following topics:

1. What are clinical trials?
2. Clinical trials help to develop new and better treatments
3. Safety and safety measures for patients
4. Benefits of participation in clinical trials
5. Consent form
6. Talking to your doctor

Although the DVD also includes several lines spoken in English, all sections of the DVD include English subtitles. The DVD menu includes a feature that allows a user to jump to a particular section of interest.

Study Setting and Participants

We conducted this pilot study in a community-based oncology clinic in Honolulu, Hawai'i from January 2013 to December 2014. The study was approved by the University of Hawai'i Institutional Review Board.

Upon referral to the oncology clinic, all new patients were asked to complete a routine intake form consisting of questions about demographic information (eg, ethnicity) and health and medical history. Patients self-identifying as Filipino on the intake form were considered for potential inclusion in the present study. Additional inclusion criteria consisted of being an adult (ie, 18 years and older) and having a clinical trial available to them. Patients meeting these criteria were approached by physicians to participate in the study.

A sample size of 60 participants was established based on the study's timeframe and feasibility after considering previous enrollment numbers of the clinic.

Consent forms were available in English, Tagalog, and Ilokano. The English version of the consent forms was reviewed by Filipino community members and revised based on input received. Faculty members from the University of Hawai'i then translated the consent forms into Tagalog and Ilokano. The translated consent forms were reviewed by Tagalog and Ilokano native speakers from the community and revised based on input received.

Participants were randomized into either the control (ie, usual education) or intervention group (ie, usual education plus educational DVD). All participants were given a \$10 gift card for their time and contributions.

Control Group

Participants randomized into the control group were asked by a nurse practitioner to complete a pre-education questionnaire prior to receiving usual education about cancer treatments. Participants were then asked to complete and return a post-education questionnaire by their next visit. Participants in the control group were given the opportunity to view the educational DVD one month after submitting the post-education questionnaire.

Intervention Group

Participants randomized into the intervention group were asked to complete a pre-education questionnaire prior to receiving usual education from a nurse practitioner about cancer treatments. Participants were then given the DVD to watch. Participants had the option to either view the DVD in the physician's office at the time of visit or were given the DVD to view at home. After receiving usual education and watching the DVD, participants were asked to complete and return a post-education questionnaire by their next visit.

Measures

Primary Outcome. The number of participants enrolled into a clinical trial in the control group and intervention group were recorded.

Pre- and Post-education Questionnaires. A list of the 14 items included in the questionnaire, including response choices, is presented in Table 1. Questionnaire items 1 to 8 were formulated by study researchers in order to obtain information regarding participants' understanding of several cancer topics (eg, clinical trials) and behavioral outcomes (eg, likelihood of asking a physician if a clinical trial is right for them). Questionnaire items 9 to 14 were utilized in the evaluation of the first educational DVD¹³ and were included in the present study's questionnaire to obtain information about participants' attitudes regarding several treatment and physician related topics (eg, trust in doctors and their treatment plan).

Questionnaires were available in English, Tagalog, and Ilokano. English versions of the questionnaires were reviewed for face validity and comprehensibility by Filipino community members and subsequently revised based on input received. University of Hawai'i faculty members then translated the questionnaires into Tagalog and Ilokano. The translated questionnaires were reviewed by Ilokano and Tagalog native speakers from the community and were subsequently revised based on input received.

Reason for Non-enrollment. Clinicians were asked to record reasons as to why participants were not enrolled into the particular clinical trial available to them. Reasons for non-enrollment include: (1) physician decision, (2) language barrier, (3) not eligible, (4) trial closed, (5) poor performance status. "Physician decision" refers to the clinician's judgment of not enrolling a patient into a clinical trial. Such decisions can be made if a physician feels the risks of clinical trial participation outweigh the benefits or if newer treatments have become available. "Language barrier" refers to the patient's inability to fully understand the particular clinical trial available to them due to lack of English proficiency; therefore, informed consent was not obtainable. This determination was made by the clinical research assistant. "Not eligible" refers to the patient not meeting clinical trial criteria. "Trial closed" refers to clinical trials no longer recruiting participants. "Poor performance" refers to the general activity of the patient, which may render them ineligible to enroll into a clinical trial.

General Participant Characteristics. General characteristics included age, gender, education (some grade school to graduate or professional school), English proficiency (poor to excellent), immigration generation, and cancer diagnosis. Education was further collapsed into less than high school, high school graduate, some college, and college graduate. Participants were asked to self-identify their immigrant generation. Those in the first generation were defined as those who were born in the Philippines and immigrated to the United States. Those in

Table 1. Pre- and Post-education Questionnaire Items and Response Choices	
Questionnaire Item	Response Choices
(1) How well do you understand what cancer is?	(1) I really understand; (2) I understand; (3) I don't really understand; (4) I don't understand
(2) How well do you understand how cancer can be treated?	(1) I really understand; (2) I understand; (3) I don't really understand; (4) I don't understand
(3) How well do you understand what a clinical trial is?	(1) I really understand; (2) I understand; (3) I don't really understand; (4) I don't understand
(4) How well do you understand the benefits of clinical trials?	(1) I really understand; (2) I understand; (3) I don't really understand; (4) I don't understand
(5) How well do you understand the risks of clinical trials?	(1) I really understand; (2) I understand; (3) I don't really understand; (4) I don't understand
(6) How well do you understand the clinical trial your doctor suggests?	(1) I really understand; (2) I understand; (3) I don't really understand; (4) I don't understand
(7) How sure are you that you will ask your doctor if joining a clinical trial is right for you?	(1) Very sure; (2) Sure; (3) Not Sure; (4) I will not ask
(8) How sure are you that you will join the clinical trial that your doctor suggests?	(1) Very sure; (2) Sure; (3) Not Sure; (4) I will not join
(9) I trust that the doctors and other health professionals have my best interest at heart.	(1) Strongly agree; (2) Agree; (3) Neither agree nor disagree; (4) Disagree; (5) Strongly Disagree
(10) I believe that my treatment plan will help to prevent my getting cancer again.	(1) Strongly agree; (2) Agree; (3) Neither agree nor disagree; (4) Disagree; (5) Strongly Disagree
(11) I expect to be free of cancer in the future.	(1) Strongly agree; (2) Agree; (3) Neither agree nor disagree; (4) Disagree; (5) Strongly Disagree
(12) The benefits of my treatment plan outweigh any difficulty I might have in following it.	(1) Strongly agree; (2) Agree; (3) Neither agree nor disagree; (4) Disagree; (5) Strongly Disagree
(13) Members of my immediate family think I should follow my treatment plan.	(1) Strongly agree; (2) Agree; (3) Neither agree nor disagree; (4) Disagree; (5) Strongly Disagree
(14) I am able to deal with any problem in following my treatment plan.	(1) Strongly agree; (2) Agree; (3) Neither agree nor disagree; (4) Disagree; (5) Strongly Disagree

the second generation were defined as those who were born in the US but whose parents were born in the Philippines. Those in the third generation were defined as those who were born in the US and whose parents were also born in the United States.

Statistical Analyses

Analyses were conducted using Statistical Analysis Software, version 9.3 (SAS Institute Inc., Cary, NC). Independent t-tests and Chi-square tests or Fisher's exact tests were conducted to compare differences in general characteristics between study groups for continuous (ie, age) and categorical variables (ie, gender, education, language proficiency, and immigrant generation), respectively.

Among the 37 participants included in the study, nine participants had incomplete pre-education questionnaires and/or post-education questionnaires. Independent t-tests and Chi-square tests or Fisher's exact tests were conducted to determine differences in general participant characteristics and pre-education item response scores between participants with complete questionnaires and those with incomplete questionnaires.

Item responses from the pre- and post-education questionnaires were reverse-coded, so higher response choices reflected more positive responses. General linear models were conducted to determine significant differences between the control group and intervention group in post-education response scores for each item after controlling for age, education, gender, and pre-education questionnaire item response score. If the group main effect term was found to be significant, additional models were conducted to examine the interaction between covariates and group assignment.

A Fisher's exact test was conducted to examine the relationship between study group assignment and clinical trial enrollment. It is to be noted that the test did not include participants, who did not enroll into a clinical trial due to reasons of ineligibility (N=7) and trial closures (N=7).

Results

Forty-four participants were recruited to participate. Study researchers identified three duplicate participants, who had been recruited twice to join the study. After ensuring consent forms were completed, a total of 37 participants were included in the present study. Seventeen participants were randomized into the control group, and twenty participants were randomized into the intervention group. Table 2 presents general characteristics among all 37 participants and by study group. No significant differences in general characteristics were found between study groups. The average age of participants was 59.37 ± 12.96 years, and 65% were women. Most participants were found to have at least some college education (55%). Approximately 37% of participants reported having poor or fair English proficiency. Most of the participants were found to be first generation immigrants (76%). The largest proportion of participants was diagnosed with breast cancer (35%).

Compared to those who fully answered the questionnaire (n=28), those with some missing questionnaire information (n=9) were found to be less educated ($P = .023$) and had lower English proficiency ($P < .001$). No significant differences were found in pre-education questionnaire item responses between those with missing cases and those without missing cases.

Table 3 presents general linear model results testing for significant differences in post-education item response scores between study groups. Results show a significant difference in post-education responses between groups for Item 8 ($P = .013$), which asked participants to provide their level of agreement on their surety of joining the clinical trial suggested to them by their physician. Compared to the adjusted mean post-education response scores for Item 8 among those in the control group

(adj mean=2.71, SE=0.15), the adjusted mean post-education response score among those in the intervention group was 3.20 (SE=0.11). Additional analyses showed a significant interaction between age and group assignment when modeling the post-education response scores for Item 8 ($\beta = -0.04$, SE=0.01, $P = .010$), suggesting that the DVD's effect reduces with increased age. No other significant differences were observed for the other

questionnaire items. However, it is to be noted that participants in both groups appeared to have a positive perception of their physicians and the treatment plans available to them. For example, the adjusted mean post-education response scores for Item 10, which asks about a participant's belief that his or her treatment plan will prevent recurrence of cancer, was 4.69 (SE=0.16) for the control group and 4.61 (SE=0.13) for the intervention group.

Table 2. General Characteristics among All Participants and by Study Group				
Characteristic	All participants (n=37)	Usual Education (n=17)	Usual Education Plus DVD (n=20)	P
Age (Mean \pm SD)	59.37 \pm 12.96	60.41 \pm 14.49	58.50 \pm 11.81	.66 ^a
Gender (n (%))				
Women	24 (65)	12 (71)	12 (60)	.50 ^b
Men	13 (35)	5 (29)	8 (40)	
Education (n (%))				
Less than high school	9 (26)	4 (25)	5 (26)	>.99 ^c
High school graduate	7 (20)	3 (19)	4 (21)	
Some college	10 (29)	5 (31)	5 (26)	
College graduate	9 (26)	4 (25)	5 (16)	
Missing cases (n)	2	1	1	
English Proficiency (n (%))				
Poor	4 (15)	1 (8)	3 (20)	.35 ^c
Fair	6 (22)	3 (25)	3 (20)	
Good	7 (26)	5 (42)	2 (13)	
Excellent	10 (37)	3 (25)	7 (47)	
Missing cases (n)	10	5	5	
Immigrant Generation (n (%))				
First	25 (76)	8 (57)	17 (89)	.081 ^c
Second	6 (18)	4 (29)	2 (11)	
Third	2 (6)	2 (14)	0 (0)	
Missing cases (n)	4	3	1	
Cancer Diagnosis (n (%))				
Melanoma	1 (3)	1 (6)	0 (0)	
Breast	13 (35)	7 (41)	6 (30)	
Myelodysplastic syndrome	1 (3)	0 (0)	1 (5)	
Colon	6 (16)	2 (12)	4 (20)	
Lung	2 (5)	0 (0)	2 (10)	
Prostate	2 (5)	1 (6)	1 (5)	
Pancreas	2 (5)	0 (0)	2 (10)	
Liver	1 (3)	1 (6)	0 (0)	
Myeloma	3 (8)	1 (6)	2 (10)	
Gastrointestinal stromal tumor	1 (3)	1 (6)	0 (0)	
Chronic lymphocytic leukemia	1 (3)	1 (6)	0 (0)	
Testicular	1 (3)	0 (0)	1 (5)	
Lymphoma	1 (3)	1 (6)	0 (0)	
Chronic myeloid leukemia	2 (5)	1 (6)	1 (5)	

SD=standard deviation

^aIndependent t-test conducted to determine differences between study groups

^bChi-square test conducted to determine differences between study groups

^cFisher's exact test conducted to determine differences between study group

Questionnaire Item	Usual Education (n=17)		Usual Education plus DVD (n=20)		P
	Adjusted Mean	SE	Adjusted Mean	SE	
(1) How well do you understand what cancer is?	3.35	0.10	3.36	0.09	.94
(2) How well do you understand how cancer can be treated?	3.34	0.13	3.28	0.11	.71
(3) How well do you understand what a clinical trial is?	3.17	0.15	3.25	0.12	.70
(4) How well do you understand the benefits of clinical trials?	3.15	0.12	3.44	0.10	.094
(5) How well do you understand the risks of clinical trials?	3.09	0.14	3.18	0.12	.60
(6) How well do you understand the clinical trial your doctor suggests?	3.19	0.13	3.52	0.12	.072
(7) How sure are you that you will ask your doctor if joining a clinical trial is right for you?	3.13	0.19	3.22	0.16	.71
(8) How sure are you that you will join the clinical trial that your doctor suggests?	2.71	0.15	3.20	0.11	.013
(9) I trust that the doctors and other health professionals have my best interest at heart.	4.58	0.09	4.77	0.07	.121
(10) I believe that my treatment plan will help to prevent my getting cancer again.	4.69	0.16	4.61	0.13	.68
(11) I expect to be free of cancer in the future.	4.66	0.10	4.75	0.09	.50
(12) The benefits of my treatment plan outweigh any difficulty I might have in following it.	4.72	0.17	4.43	0.14	.189
(13) Members of my immediate family think I should follow my treatment plan.	4.45	0.14	4.51	0.11	.72
(14) I am able to deal with any problem in following my treatment plan.	4.41	0.15	4.56	0.12	.44
All items	3.66	0.10	3.88	0.08	.089

SE = standard error. Covariates adjusted for include age, gender, education, and pre-education item response score. The number of observations used in each model may vary due to missing cases of covariates and pre-education and post-education item responses.

Table 4 presents the number of participants, who enrolled into clinical trials by study group. Six of the 17 control group participants and 8 of the 20 participants in the intervention group were excluded from analysis because they were deemed ineligible for a clinical trial, or no clinical trial was available to them at the time. Among those remaining in the control group (n=11), two enrolled into clinical trials (18%). Among those remaining in the intervention group (n=12), three enrolled into clinical trials (25%). Table 4 also presents physician recorded reasons as to why participants were not enrolled into the particular clinical trial recommended to them. In both the control and intervention groups, the largest proportion of participants was not enrolled into a clinical trial due to language barriers. No significant relationship was found between group assignment and clinical trial enrollment ($P>.99$).

	Usual Education (n=17)*	Usual Education Plus DVD (n=20)*	P
Enrolled into clinical trials (n (%))	2 (18%)	3 (25%)	>.99 ^a
Not enrolled into clinical trials (n (%))	9 (82%)	9 (75%)	
Ineligible for trial / trial closed (n)	6	8	
Reason for non-enrollment (n (%))			
Physician decision	0 (0)	1 (14)	
Language barrier	6 (100)	5 (71)	
Poor performance status	0 (0)	1 (14)	
Missing cases (n)	3	2	

*Proportions exclude participants who did not enroll into a clinical trial due to reasons of ineligibility and trial closures.

^aFisher's exact test conducted to determine relationship between study group assignment and clinical trial enrollment.

Discussion

This is one of the first studies to explore the effect of a culturally-tailored educational DVD on the enrollment of Filipino cancer patients into clinical trials. Results showed significant differences between study groups on surety of joining a clinical trial, suggesting that those in the intervention group may have been positively influenced by the educational DVD to move forward with their decision to join the clinical trial recommended to them. This study further provides lessons learned on the feasibility of implementing a research study within an oncology clinic and provides insight on barriers to clinical trial enrollment experienced by Filipino cancer patients, particularly language barriers.

Although participants in the intervention group presented higher post-education response scores regarding surety of joining a clinical trial, no significant association was found between group assignment and actual clinical trial participation. A possible explanation for this result could be the fact that participants were unable to join due to reasons beyond the scope of the present study; over a third of participants did not join a clinical trial due to reasons of ineligibility and trial closures. Therefore, it is possible that participants wanting to join a clinical trial may not have had the opportunity to do so. Interestingly, language barriers were found to be a major reason as to why participants in both the intervention and control groups did not enroll into a clinical trial. Because the educational DVD only discusses clinical trials in general terms, the language support needed to understand each unique protocol was beyond the scope of this study and identifies a larger systematic issue that must be addressed by clinics enrolling patients.

Although language barriers were found to be a major reason for non-enrollment among Filipino cancer patients, a large proportion of participants reported being excellent in English proficiency. This discrepancy may be explained by the unique historical relationship between the Philippines and the United States. After the start of the American colonial period in the Philippines, an English-based public school system was established.¹⁵ Presently, English remains as one of the major languages spoken in the Philippines. However, this proficiency may not include health literacy, which refers to one's capacity to utilize health information in order to make informed decisions regarding health.^{16,17} In order to address these barriers, clinicians and clinical trial researchers are encouraged to have access to interpretation resources as well as linguistic and culturally appropriate materials at all phases of treatment to ensure patients are fully informed of their treatment options. Moreover, patient navigation, either through lay navigators or clinicians, may be an effective approach to help cancer patients address barriers throughout the process of enrollment.¹⁸⁻²⁰

Results of this study further support existing research, which shows the significant impact age may have on clinical trial intervention research. Previous studies have shown significant age disparities, particularly among older cancer patients, in clinical trial enrollment.^{4,21,22} Over 60% of the total incidence of cancer occurs in the elderly (≥ 65 years). The effect of age on clinical

trial enrollment may be more apparent among immigrant, first generation Filipinos. Because Filipinos are part of a collectivist culture, older Filipinos may rely on their English-speaking family members to guide medical decisions.^{23,24} Clinicians are encouraged to ensure both patients and their family members receive comprehensive education about clinical trials.

This study further demonstrates the feasibility of conducting a research study within an oncology clinic. Not all recruited participants were included in analyses of the study due to several reasons, such as duplicate participants and incomplete consent forms. Because the clinicians are in a demanding work environment where the primary focus is patient treatment and care, it was also difficult for clinicians to recruit participants and conduct administrative research activities. Therefore, there may be a need for a research coordinator to be present in clinics to provide support and to ensure the fidelity of study design and administration. Moreover, in order to further support clinicians, the use of a checklist outlining fidelity criteria, such as completed questionnaires and validating that the video was viewed by participants, may be helpful to clinicians.²⁵ Despite these challenges, participants in both groups appeared to have positive perceptions of their physicians and treatment plans.

Due to several limitations, results of this study must be interpreted with caution. Due to constraints on resources and time, psychometric testing on questionnaire items was not conducted and therefore, issues of internal validity and reliability may bias results. A power analysis was not conducted a priori to determine the sample size for this study. Rather, a sample size of 60 participants was originally established based on the study's timeframe and the clinic's previous enrollment numbers. Because the number of participants included in this study falls below 60, limited statistical power due to small sample size should be considered when interpreting results. Given the observed proportions of participants enrolling into clinical trials in the present pilot study, a power analysis conducted using *G*Power*²⁶ indicated that a sample size of 1080 would be needed to achieve 80% power with a two-sided α level of 0.05. In order to maximize recruitment efforts and enhance study results, future studies are encouraged to establish a longer recruitment period and to collaborate with multiple sites to expand the reach to potential participants.

Additionally, nurse practitioners involved in the study were not blinded and were not trained to conduct a standardized curriculum. Therefore, experimenter bias may have been introduced into study results if nurse practitioners did not deliver usual education equally between control and intervention participants. The Hawthorne effect may further affect results if active engagement from nurse practitioners unduly influenced participant behavior. Selection bias could have also affected the results of the study, because participants' previous knowledge of clinical trials was not evaluated. Those with a previous understanding of clinical trials may have been more likely to participate in this study. Due to missing cases within variables, results should be interpreted with caution, particularly because significant differences in education and English proficiency

were found between those who completed the questionnaires and those who did not. Moreover, the study does not provide a comprehensive list of reasons for non-enrollment, such as patient refusal, which may have provided further insight on barriers to enrollment faced by Filipino cancer patients. Participants may have also been eligible to participate in multiple trials that were open. However, this study only captured the enrollment results from the first trial offered to them. Finally, the study's inclusion criteria did not consider cancer diagnosis during recruitment; therefore, it is possible that patients, who may have enrolled in a clinical trial, did not have the opportunity to do so because a trial may not have been available for their particular cancer. A future pilot study addressing these limitations is warranted.

Despite these limitations, this is one of the first pilot studies exclusively focused on clinical trial enrollment among Filipino cancer patients. The lessons learned and limitations observed from this pilot study will help to inform future health promotion interventions targeting this underserved and sometimes hard to reach population. Moreover, results of this study show promise in the utilization of a culturally-tailored DVD to improve clinical trial participation among Filipino cancer patients. Results also suggest that health literacy may serve as a barrier for Filipinos when enrolling in cancer clinical trials. Future research is needed to explore the effect of health literacy on cancer treatment outcomes, particularly among Filipinos. This study further shows the feasibility of conducting an intervention study in a community-based oncology clinic. On-site research coordinators in clinics may provide further support to clinicians and ensure the fidelity of study implementation.

Conflict of Interest

None of the authors identify any conflict of interest.

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