International Journal of Innovative Research and Advanced Studies (IJIRAS)
Volume 7 Issue 12, December 2020

ISSN: 2394-4404

Narrative Persuasion: Determining The Effects Of Narrative Message Perspective Influence On Intention To Screen For Cervical Cancer Among Women In Agricultural Sector In Kenya

Mr. Joseph Muchiri

Department of Community Health, Mount Kenya University, Kenya

Dr. Rhyoidah Nyanbane

Department of Media and communication, Technical University of Kenya

Prof. Helen Mberia

Department of Media and Communication Technology, Jomo Kenyatta University, Nairobi, Kenya

Abstract: ***Comparison between communicating health issue through info- graphics and narratives has shown narrative to be more effective especially in population with low education enrollment. However, few studies exist in regard to the mechanism through which this is achieved. In this regard, we evaluated the effects of narrative perspective on uptake of cervical cancer screening among women in agricultural sector Kiambu County, Kenya. A randomized experimental design was used in this study. The messages was presented via a medium of a brief narrative video on cervical cancer and cervical screening. A uniform pretest questionnaire on cervical cancer and cervical cancer screening (T1) was completed by respondents before watching a narrative video. After watching a narrative video on cervical cancer screening participants responded to the post test questionnaire (T2). Data from 378 (100%) respondents for the pretest and 344 (91%) for posttest, was analyzed and included in the study findings for the baseline and posttest respectively. Multiple hierarchical regression analysis was used. Majority of the respondents were aged above 41 years of age at 32%. Majority 249 (65.9%) of the respondents were married. Regarding parity, majority 210 (55%) of the respondents had 1 to 3 children followed by 4 to 5 at 91(24%). After running multiple hierarchical regression analysis, the study found that respondents who received narrative in the first person perspective were more likely to have intention to screen for cervical cancer compared to respondent who received messages in the third person perspective. The study concluded that while using narrative messages to promote health behavior, use of stories told in the first person perspective may help in increasing adoption of advocated health behavior.***

Keywords: Narrative communication, cervical cancer, perpective.

I. INTRODUCTION

Cervical cancer is one of the most frequently diagnosed form of cancers in women. In 2018, approximately 570,000 cases and 311,000 deaths was reported (Bray, et al 2018). Majority of this occurred in developing countries (de Martel, et al., 2017). With increased awareness on prevention, effective screening, timely diagnosis and treatment, most of these deaths could be prevented. According to a study conducted by Denny (2010), 60 to 90% reduction of cervical cancer mortality rates could be experienced if cervical cancer screening programs were introduced in rural populations within three years of implementation.

In Kenya cervical cancer screening tests are offered for free and are available at most health facilities ("Kenya National Cancer Screening Guidelines," 2018). However, in spite of this, the uptake of these services is generally low. In 2018, cervical cancer screening coverage in Kenya was

estimated to be at 3.2% for all women, 4.0% for women in urban areas, and 2.6% for women in rural areas(Morema, Atieli, Onyango, Omondi, & Ouma, 2014a). A variety of reasons have been given for low uptake of cervical cancer screening services. These includes user fees, time required to effectively consume a service, danger associated, stigma, embarrassment, poor knowledge, among others things (Saraiya, Lee Smith, Ragan, Aketch, & Buchanan Lunsford, 2017).

The implication of this low uptake of cervical cancer screening services is that most of the patients do not get to know their cervical cancer status early, and consequently present at health facilities when the disease has progressed to advanced stages, when it is difficult to manage. Patients with advanced cancer usually have poor treatment outcomes and more than half of these women die (Santesso et al., 2016).

One of the most notable interventions in the up scaling uptake of cervical screening is the use of efficient cancer communication strategies (Wojcieszak & N Kim, 2016). Moreover, Elbert et al(2017) have shown that communicating messages in a manner that is friendly and in format the message recipients can relate to, often lead to a higher adoption and maintenance of health behavior(Elbert, Dijkstra, & Rozema, 2017).

There is evidence that use of narrative messages is effective in the context of health.for example, a study by Yoo etal (2015) showed narrative to be effective in decreasing turning bed use, (Yoo, Kreuter, Lai, & Fu, 2014,Nanet al 2015, Wojcieszak & Kim 2016;Chen et 2016), promoting blood donation (Kopfman, Smith, Yun, & Hodges, 1998), in increase donation of organ (Weber, Martin, & Corrigan, 2006), encouraging the consumption of fruit and vegetables (Slater et al., 2003), and avoiding tendency for drunk driving (Stitt & Nabi, 2005). The use of narrative to communicate cervical cancer screening to rural population in the current study may be effective given that most of them have low education attainment.

While the recent has it that narratives are effective in promoting health behavior, it is not entirely know what precisely what specific parts of narrative message type influence higher perception of threat and effectiveness and ultimately lead to intention to engage in the recommended health behavior (Green, 2008).

Green and Brock (2001) have suggested that persuasion is a function of transportation in to the narrative world. The mechanism of transportation, the study suggests, is through several pathways including creation of emotional responses, connection with character through character identification, and by making narrative look more similar to the real world experience. They however do not offer any explanation as to what elements of narrative message construction that lead to transportation in the first place and consequently leading to persuasion. Following this discussion therefore, the important problem of what particular element of narrative messages leads to persuade an individual to adopt a health behavior remains unexplored. In this regard therefore, the current study suggests that the rationality (believability) of a narrative may influence adoption of health behavior.

OBJECTIVE

The study objective was to assess the effects of narrator's perspective on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya. The study adopted a null hypothesis stated as follows.

Ho_1: Narrator's perspective has no significant effects on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya.

II. MATERIALS AND METHODS

A randomized experimental design was used in this study. Women working aged 20-64 years working in tea firms were targeted. A sample size was 384 respondents was used. The messages was presented via a medium of a brief narrative video on cervical cancer and cervical screening presented in both first person perspective and third person perspective. Posttest questionnaire with items evaluating narrative rationality was obtained. Yales (2013) 12 items on rationality scale was adopted in the study to measure narrative rationality. Chi Square tests, ANOVA, ANCOVA Hierarchical multiple regression for inferential statistics. General linear model was used to test the hypothesis. Ethical clearance was obtained from Mount Kenya ethical committee

FINDINGS

Data from 378 (100%) respondents for the pretest and 344 (91%) for posttest, was analyzed and included in the study findings for the baseline and posttest respectively. Majority of the respondents were aged above 41 years of age at 32%. Majority 249 (65.9%) of the respondents were married. Regarding parity, majority 210 (55%) of the respondents had 1 to 3 children followed by 4 to 5 at 91(24%).

EFFECTS OF NARRATOR'S PERSPECTIVE ON INTENTION TO SCREENING FOR CERVICAL CANCER AMONG WOMEN IN AGRICULTURAL SECTOR IN KIAMBU COUNTY, KENYA

The second objective was to determine the Effects of narrator's perspective on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya. To determine this, a baseline questionnaire with items testing on future intention to screen for cervical cancer was administered to the respondents. After two weeks the respondents were followed up with an intervention which involved watching any of the four narrative video clips in different message frames. The effects of the narrative perspective on the variable were then measured immediately after watching the video clip by administering a posttest questionnaire that had similar items as the pretest questionnaire. To facilitate analysis using ANCOVA a one way analysis of variance was carried out (ANOVA) to determine that there existed no difference before intervention. The results are as indicated in table 4.18 below

		Sum of squares	df	mean square	f	sig
Intention to Screen for cervical cancer at post test	Between groups	25.6	1	25.6	1.329	0.250
	Within groups	6646.0	342	19.3		
	Total	6671.6	343			

Table 4.1: ANOVA of Narrative perspective on intention to screen for cervical cancer at pre test

From the table above there were no statistical significant difference in respect to scoring on intention between the group allocated to watch narrative video clip in first person perspective and narrative clip that is in the second perspective at the baseline F (1, 342) = 1.329, p = 0.250. The implication of this finding is that individuals allocated in either of the two group were equally likely (or unlikely) to screen for cervical cancer at baseline. At the same time the test met the ANCOVA assumption that requires ANOVA of the groups in comparison not be significant at pretest F (1, 342) = 1.329, p = 0.250 was achieved.

The two groups were subjected to intervention which entailed watching their respective allocated video clip in either first person or second person perspective. They were then given a posttest questionnaire with items measuring change in the intention to screen for cervical cancer. The findings are as indicated in table 4.19 below.

Narrator perspective	Pretest (N=378)		post test (N=344)	
	Mean	SD	Mean	SD
1st person perspective narrative.	15.4	2.04	26.9	4.3
2nd person perspective narrative.	15.0	1.5	22.53	4.4

Table 4.2: Distribution of scores on intention to screen for cervical cancer by study narrator perspective

From the table there was there was a general increase in the mean score on intention to screen for cervical cancer among respondents in all the three group both groups.

ANCOVA test was done to find out if there existed any significant difference in scoring on intention to screen for cervical cancer for respondent who watched video clip in first person perspective and the respondents who watch video clip in second person perspective. Intention to screen for cervical cancer at post test was entered as the dependent variable and narrator's perspective as fixed factor while controlling for intention to screen at pre-test. The results are as presented in table 4.19 below.

Source	Type III Sum of squares	df	mean square	f	sig
Corrected Model	2666.610[a]	2	1333.305	18.719	0.000
Intercept	12214.508	1	12214.508	171.488	0.000
Intention to screen at pre test	7.014	1	7.014	0.098	0.754
Narrative perspective	2639.009	1	2639.009	37.051	0.000
Error	22009.069	342	71.227		
Total	199904.000	344			
Corrected total	24675.679	343			

Table 4.3: ANCOVA of Narrative Perspective effects on intention to screen for cervical cancer

From the table above there exist a significant difference in regard to scoring on the intention to screen for cervical cancer between the group that watched the first person perspective narrative video and the second person perspective narrative video clip.

CONTROL OF EFFECTS OF MESSAGE FRAME AND SOCIAL DEMOGRAPHIC CHARACTERISTICS

To control for effects of message frame and social demographic variables on the intention to screen for cervical cancer given the message perspective, a hierarchical multiple regression was run with all the sociodemographic factors and the message frame entered in the first block and message perspective entered in the second block. The results were as presented in table 4.20

Variable	β	t	sr^2	R	R^2	ΔR^2
Step 1				**0.339**	**0.115**	**0.115**
Age	.189	-.559	-0.30			
Religion of the respondent	1.28	1.870	0.101			
Education level	1.82	-6.079	-.025			
Marital status	0.182	0.081	-.085			
Message frame	1.91	-6.079	-.314			
Step 2				**0.452**	**0.204**	**0.09**
Age	1.38	0.428	-.023			
Religion of the respondent	1.21	1.723	.094			
Education Level	0.135	-0.366	-.020			
Marital status	0.296	-1,088	-.059			
Message frame	-1.876	-6.261	-.323			
Narrative perspective	5.376	6.160	0.319			

Table 4.4: Hierarchical multiple regression of narrative perspective covariates

The hierarchical multiple regression revealed that at Stage 1, together, social demographic variables and the message frame contributed significantly to the regression model, F (4,344) = 8.79, p= 0.01) and accounted for 11.5% of the variation in intention to screen for cervical cancer. Introducing message perspective variable at step 2 explained an additional 9.0% of variation in intention to screen for cervical cancer. This change in R^2 was significant, F (4,343) = 8.749, p= 0.00). When effects of socio demographic variables, message frame, and message perspective were added together in the model in stage 2, two variables (the message frame (F (5,343) = 14.43, p= 0.00) and message perspective (F (5,343) = 14.43, p= 0.00), were significant predictors intention to screen for cervical cancer. After the effects of the sociodemographic variables and the message frames were removed, message perspective explained 9% of the variation on intention to screen for cervical cancer which was statistically significant.

TEST OF HYPOTHESIS

The second null hypothesis stated that narrator's perspective has no significant effects on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya. To test the hypothesis, General Linear Univeriate model was used. The null hypothesis of the model is that there is no difference in mean in respect to scoring on future intention to screen for cervical cancer across the message perspective at post test. Intention to screen for cervical cancer at post test was entered as a dependent variable and the message perspective as the fixed factor. Additionally Laverne test of homogeneity of variance was carried out. The levene's test of homogeneity met the assumption of homogeneity, F (1, 342) = 3.1, p = 0.27. The result for the General Linear univeriate model were as indicated in table xx

below

Source	Type III Sum of squares	df	mean square	f	sig
Corrected Model	2736.205[a]	1	2736.205	38.634	0.000
Intercept	190380.972	1	190380.972	2688.069	0.000
Narrative perspective	2736.205	1	2736.205	38.634	0.000
Error	24221.95	342	70.824		
Total	225919.000	344			
Corrected total	26958.160	343			

Table 4.5: Narrative perspective results on Tests of Between-Subjects Effects

From the table above there was a significant effect of message perspective on the intention to screen for cervical cancer at post test [F (1, 344) = 38.634, p = 0.000]. Based on the findings, the null hypothesis is rejected. Moreover, a post Hoc comparison of intention to screen for cervical cancer mean between the first person and second person perspective narratives revealed that the mean scores on intention to screen for cervical cancer for the respondents who watched the first person narrative video clip (M=26.5, 8.7SD), was greater than that of the respondents who watched the second person perspective narrative video clip (M=20.8, 8.03SD), The implication of this finding is that the first perspective video clip was more effective compared to the second person perspective video clip.

Taken together these findings suggest that narrative perspective have an effect on intention to screen for cervical cancer among women in agricultural sector in Kiambu County. The results further suggest that the effects of message perspective would be bigger if messages are presented in the first person narrative perspective. These findings are comparable with other studies done elsewhere. For instance, a study by Nan et al (2017) that sought to examine the relative persuasiveness of narrative vs. non-narrative messages and the influence of narrative perspective (first- vs. third-person) and modality (text-based vs. audio-based) on message effectiveness in a controlled experiment, found out that narrative perspective had a role in influencing risk perception and that first-person narrative message led to greater perceived risk of getting HPV than a third-person narrative message.

Similarly, these findings concur with a study by Vince, (2013). In this study the researchers examined the persuasive effects of three narrative features in a message about type 2 diabetes: narrative point of view (first- vs. third-person perspective), protagonist competence (positive role model who prevents diabetes vs. negative role model who develops diabetes), and protagonist-reader similarity (demographically similar vs. dissimilar) using a randomly allocated sample of 489 respondents. The study found Greater levels of identification were found to foster self-referencing (first person perspective), leading to persuasion. Identification was strongest with a first-person point of view and when the narrator was a positive role model.

Moreover, another study by Kaufman and Libby's study (2012), a first-person (vs. third-person) narrative increased experience-taking and behavior change. However, the advantages of the first-person narrative only emerged when the depicted character was in group (vs. out-group). Narratives have a promise of changing health behavior. Results in the current study suggest that creative executions involving first-person accounts of narrative stories are recommended in increasing intention to screen for cervical cancer among women in agricultural setting.

REFERENCES

[1] Bray F, Ferlay J, Soerjomataram I, Siegel RL, Torre LA, Jemal A. Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA: a cancer journal for clinicians. 2018 Nov;68(6):394-424.

[2] Chen M, Bell RA, Taylor LD. Narrator point of view and persuasion in health narratives: the role of protagonist–reader similarity, identification, and self-referencing. Journal of health communication. 2016 Aug 2;21(8):908-18.

[3] De Martel C, Ferlay J, Franceschi S, Vignat J, Bray F, Forman D, Plummer M. Global burden of cancers attributable to infections in 2008: a review and synthetic analysis. The lancet oncology. 2012 Jun 1;13(6):607-15.

[4] Elbert SP, Ots P. Reading or listening to a gain-or loss-framed health message: Effects of message framing and communication mode in the context of fruit and vegetable intake. Journal of health communication. 2018 Jun 3;23(6):573-80.

[5] Green MC. Research Challenges: Research challenges in narrative persuasion. Information Design Journal. 2008 Jan 1;16(1):47-52.

[6] Green MC, Brock TC, Kaufman GF. Understanding media enjoyment: The role of transportation into narrative worlds. Communication theory. 2004 Nov 1;14(4):311-27.

[7] Heath, R. L., Lee, J., & Lemon, L. L. (2019). Narratives of risk communication: Nudging community residents to shelter-in-place. Public Relations Review, 45(1), 128–137. https://doi.org/10.1016/J.PUBREV.2018.12.004

[8] Kenya National Cancer Screening Guidelines," 2018

[9] Kopfman JE, Smith SW, Ah Yun JK, Hodges A. Affective and cognitive reactions to narrative versus statistical evidence organ donation messages.

[10] Morema EN, Atieli HE, Onyango RO, Omondi JH, Ouma C. Determinants of cervical screening services uptake among 18–49 year old women seeking services at the Jaramogi Oginga Odinga Teaching and Referral Hospital, Kisumu, Kenya. BMC health services research. 2014 Dec 1;14(1):335.,

[11] Nan X, Dahlstrom MF, Richards A, Rangarajan S. Influence of evidence type and narrative type on HPV risk perception and intention to obtain the HPV vaccine. Health communication. 2015 Mar 4;30(3):301-8.,

[12] Santesso N, Mustafa RA, Wiercioch W, Kehar R, Gandhi S, Chen Y, Cheung A, Hopkins J, Khatib R, Ma B, Mustafa AA. Systematic reviews and meta-analyses of benefits and harms of cryotherapy, LEEP, and cold knife conization to treat cervical intraepithelial neoplasia. International Journal of Gynecology & Obstetrics. 2016 Mar 1;132(3):266-71.

[13] Slater MD, Buller DB, Waters E, Archibeque M, LeBlanc M. A test of conversational and testimonial messages versus didactic presentations of nutrition information.

ISSN: 2394-4404

Journal of nutrition education and behavior. 2003 Sep 1;35(5):255-9

[14] Nabi, R. L., Stitt, C. R., Halford, J., & Finnerty, K. L. (2006). Emotional and cognitive predictors of the enjoyment of reality-based and fictional television programming: An elaboration of the uses and gratifications perspective. Media Psychology, 8(4), 421-447.

[15] Weber, K., Martin, M. M., Members of COMM 401, & Corrigan, M. (2006). Creating persuasive messages advocating organ donation. Communication Quarterly, 54(1), 67-87.

[16] Wojcieszak M, Kim N. How to improve attitudes toward disliked groups: The effects of narrative versus numerical evidence on political persuasion. Communication Research. 2016 Aug; 43(6):785-809.

[17] Yoo JH, Kreuter MW, Lai C, Fu Q. Understanding narrative effects: The role of discrete negative emotions on message processing and attitudes among low-income African American women. Health communication. 2014 May 28;29(5):494-504.

[18] Yoo JH, Kreuter MW, Lai C, Fu Q. Understanding narrative effects: The role of discrete negative emotions on message processing and attitudes among low-income African American women. Health communication. 2014 May 28;29(5):494-504.