

The effects of TV loss framed cervical cancer messages on screening uptake behavior among reproductive women in Kiambu

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Abstract: Cervical cancer is increasing in prevalence and incidences with 530, 000 new cases annually amongst women of reproductive ages globally and 8600 deaths per every 100000 Kenyan women. In fight against cervical cancer the television has given prominence to cervical cancer stories. These messages on screening, prevention, treatment and diagnosis of cervical cancer have been given loss angle. Thus, the study sought to find out the effects of TV loss framed cervical cancer messages on screening uptake behavior among reproductive women in Kiambu County. To comply with this objective, the researcher used questionnaires and interviews to acquire data from reproductive women in Kiambu County. To find out the effects the researcher used descriptive research design for qualitative and quantitative data. Based on the findings of the study, reproductive women avoid or go for screening based on the angle given to the cervical cancer messages. The TV loss framing of cervical cancer leads to fear, confusion, threats and misinformation hindering screening, as such; the loss framing of cervical cancer influences the screening uptake behavior among reproductive women.

Index terms- Television loss framed messages, cervical cancer, reproductive women, screening uptake behavior

1. Introduction

Cervical cancer is totally harmful to the health of reproductive women. It's the chief cause of deaths amongst reproductive women in developing countries and globally (Tiruneh, 2017). It is the next most common cancer among the reproductive women after the cancer of the breast in South-Central Asia, Sub-Saharan Africa and East and Central Africa (Ferlay et al., 2015; Torre et al., 2018). The magnitude of the cervical cancer crisis is compounded by the lack of prompt screening services and inadequate provision of funds for preventive and curative services from the government at a national and county level and effects of the nature of the messages aired to the women (Abwao et al., 1998; Memiah et al., 2012; NCCPP, 2012-2015).

Ferlay et al. 2012, finds out that cancer of the cervix is an emergent women health burden claiming reproductive women's life daily. Many reproductive women in Africa have poor awareness about its screening and preventive measures. In Eastern Africa, Cervical Cancer was the foremost reason of deaths amongst reproductive in 2018 (ACS, 2018). Cancer is an increasing problematic in Eastern Africa due to the population growth and increment of the threatening factors that are associated with lifestyles behaviors linked to economic changes; alcoholism, physical inactivity, smoking, reproductive behaviors and obesity as well as infectious agents in cervical cancer etiology (Parkin, 2014).

The prevalence of cervical cancer pattern is exact in Kenya, where the disease ranks third as the main reason of mortality annually after heart conditions' mortality. According to WHO (2013), in Kenya, cervical cancer is very common amongst reproductive women with approximately 4,802 cases that are new being identified and an approximate of 2,451 lives lost to cervical cancer.

Bernard (2014), states that all females are at jeopardy, and deaths happen 15 to 25 years after contagion with human papilloma virus, which is transmitted during sex. WHO (2013), posits that Kenya is yet to develop screening guidelines. However, most countries commend that women undergo their first screening at the age of 21. Subsequent screening should take place 3 years after, till the age of about 70 (WHO, 2013). To address the rise of cervical cancer problem as a public health priority is perplexing.

Cervical cancer emerging trends point out that the growing health problems needs to be dealt appropriately to sustain health advances (Subramanian, 2018). As a result the television has come in to define cervical cancer problem, identify the causes, and suggest remedies which results to different effects. It sways public opinions which result to patterns of behavior (Cissel, 2012). The television plays an essential role in promoting health knowledge levels by bringing cervical cancer stories into public platforms. The television coverage on health matters has significant and direct influence on public attitude, which in turn influences the screening uptake and preventive behavior (Schneider, 2016).

Various scholars of media postulates, it's of significant to appreciate several methods through which the framing of different items occur, since framing impact the knowledge of the publics, actions hence policy establishment (Griffin, 2012). The nature in which the health and risk matter are outlined is really vital, since the television may influence the by-law, the lawsuit course or the rendering

developments of researches (Moses, 2014). The television usually has a habit of underpinning explanations pertaining health complications in addition, the acceptability of various resolutions. Different news pertaining medical matters may upsurge as well as lessen the willingness to seek care and increase prospects, or heighten an alarm of control measures (Schneider, 2016).

According to Nguyen (2006), as a mechanism to intensify contribution in cervical cancer screening programs and prevention various forms of communication are aired via the television. They are designed with loss frames where messages stress on the costs and consequences of not participating in the screening programmes and the disease itself.

Else-Quest (2014), found cervical cancer stories and testimonies has been linked with help seeking and presentation which affects screening uptake behaviors. It has been framed to be a disease for the older who are above 60 and sometimes youths above 30 which makes women not in these age brackets underestimate the cervical cancer risk, hence they are not likely to be aware of primary symptoms and there is likelihood of being diagnosed with the disease when it is in an advanced stage (Yao, 2017). As such, victims of cervical cancer and their significant others suffer in silence, shame in seeking treatment, isolation, fear of death and the stigma.

In other cases coverage is on the common man, and in Kenya celebrity coverage is withstanding, the media framing literature reveals that portrayals of cervical cancer are often negative, promoting frames of dread and fear (Else-Quest, 2014). In Kenya the cervical cancer stories are featured during news, as feature stories and aired during talk shows. Based on the description of the problem above this study assessed the effects of TV loss framed cervical cancer messages on screening uptake behavior amongst reproductive women in Kiambu County.

2. Literature review

2.1 Theories

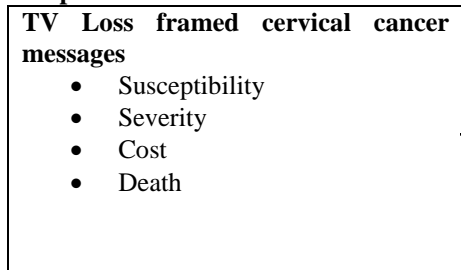
The researcher used theories as a guideline to help in focusing more on the objective of the study. The objective of the study was anchored on prospect theory that was proposed Daniel Kahneman and Amos Tversky in 1979 and health belief model that was proposed by Becker in 1974. Prospect theory proposes that personalities choose the prospect which has the greatest value during decision making process (Tversky, 1992). In explanation of framing effects, the theory maintains that framing automatically influences perception, which in turn leaves individuals susceptible to changed preferences in both real and hypothetical situations.

Individuals tend to weigh prospects (gain/loss) that seem more likely as a certainty rather than perceiving the prospect based on its actual probability. Tversky (1992), maintains that people have a habit of avoiding risks in place of the probable benefits of a choice but are willing to take risks when presented with potential costs of a decision. As such, when risk is minimal, people respond more poorly to loss framed messages, and when risk is great, people reply well to loss framed messages. Therefore, health messages should enlighten the patients on the cost of partaking a behavior as well as the benefits of the uptake.

Health belief model is used in explaining health behavior changes. It enables in the analysis of different views and perceptions pertaining health as well it aids in encouraging the evaluation of their effects preventive health behavior (Corcoran, 2007). The model proposes that elements such as perceived susceptibility, severity, barriers, benefits, cues to action and self- efficacy predicts actions of individuals towards preventing, screening and control for a disease. The perceived susceptibility and severity in combination of benefits are greatest influencers of behaviors (Janz & Becker, 1984; Corcoran, 2007)

2.2 Conceptual framework

Independent variable



Dependent variable

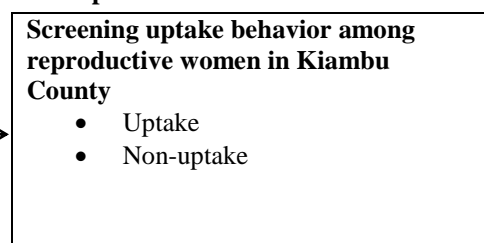


Figure 1: conceptual frame work

In this framework TV loss framed cervical cancer messages is the independent variable while screening uptake behavior among reproductive women in Kiambu County is the dependent variable. This because reproductive women screening uptake behavior depends on the exposure to cervical cancer loss framed cervical cancer messages in our television programs.

2.3 Loss framed messages

According to Levin et al. (1998), loss frames entail highlighting the expenses or consequences of not participating in the behavior. Elements of loss framing semantically alters the presentation of decisions so that the negative effects, is highlighted. Loss framing of messages has direct influences on design of health promotion appeals and reactions of the targeted group. The propensity to evade losses is called loss aversion. The prospect theory foresees that elements of losses influence the behavior. There is a conclusion that framing tangible losses influences reactions. Loss frames increase negative emotional states, but also point out the intensity of issues.

The loss frames are better suited to express the urgency of fighting epidemics. However, the negative emotions tend to hamper the memory of the listeners: individual will recall fewer realities from a communication (Petty, 2009).

Similarly, Gallagher et al. (2011), in their research on health message framing effects on attitude, intentions and behavior found, loss frames are more expected to snatch people's focus. This study concluded that loss communications lead to respondents being able to make causal interpretations in terms of crediting obligation to specific persons. Messages that bring anxiety make the viewers miscalculate the probability of something bad happening; this can lead to heightened consciousness and attention (Jemal, 2012). Loss frames are probably better able to provoke strong responses from the listeners.

One central factor in designing loss messages is their purpose; whether they seek to encourage preventive measures or boost early detection of a medical condition. Better informed people make more sustainable choice (Gallagher et al., 2011). In encouraging early detection such as screening, loss framing produces more behavioral compliance. Loss framing is more operational for the discovery a behavior (like screening for illness) that is assumed to be riskier due to the prospect of detecting illnesses. According to Meyorowitz (1990), loss framing of messages may be more influential to those who do not need much persuading.

Gallagher et al., (2011), detection behaviors demonstrates a series of behaviors which people have more varying views on vulnerability to the pertinent health conditions. In a research conducted by Apanovitch et al. (2003), on *using message framing to motivate HIV testing among low-income, ethnic minority women*, messages with elements of loss were more effective compared to the gain framing messaging for individuals who lacked assurance on anticipated consequences of testing.

In a research conducted on Approach /avoidance motivation messages framing and skin cancer prevention; A test of congruency hypothesis by Hevey (2014), concluded that one crucial mediator of the link between the message framed and its success is the difference between inspirations towards seeking gains instead of losses. Evasion goals, for instance help personalities avoid taking unnecessary risks. The effects of loss framing endure beyond the time of message contact, hence forecasting preventive and primary discovery behaviors as far as 4 months into the future. Health data ideally, should enlighten victims on the expenses of participating in a behavior and on other hand the benefits of non-compliance behaviors. Physically fit and healthy people need knowledgeable consent before reacting based on the information provided to them at individual or corporate level (Salovey, 2003).

The television tends to frame, the effects of cervical cancer as physical, financial and emotional on people and their families around the globe. Continued premature mortality and disability have substantial economic effects. Chang et al. (2012) from their research on cancer burden in Africa and opportunities for prevention stated that cervical cancer patients also suffer mental instability, cognitive issues, anxiety and adjustment disorder. The high direct and indirect economic costs of cervical cancer require particular deliberations, and a considerable portion of cervical cancer patients that are not getting adequate care. Thus, this produces more behavioral compliance and non – compliance during cervical cancer screening (Subramanian, 2018).

Borrowing from Daher (2012), research on cultural beliefs and values in cancer patients, media is in the forefront covering and framing cervical cancer control, prevention and treatment cancer globally. The treatment of cervical cancer is well thought out by majority to be monetarily overwhelming mainly for the reason that in most countries expenditure for the diagnosis and treatment of patients, and their support is fully or partially catered by the patient and their significant others.

Likewise there is an insight that someone who has been examined with cervical too weak and ill to in an employment sector. In consequence, this becomes hard for people with cervical cancer illness to go back to work after an illness related absenteeism, or to attempt to get new employment. For these reasons, cervical cancer is often kept as a secret in the workplaces workstations (WHO, 2013). Therefore agreeing with Hevey et al.(2014),that individual decisions are more influenced by possible losses, defined and measured against some reference point.

3. Research design

To describe the existing phenomena related to the effects of TV loss framed cervical cancer messages on screening uptake among reproductive women in Kiambu County descriptive research design was adopted to portray qualities of 392 reproductive women who participated in filling in the questionnaires, 4 nurses and 3victims who were interviewed during the study. Linear regression and analysis of variance (ANOVA) was used to test the statistical relationship between the TV loss framed cervical cancer messages and screening uptake behavior in Kiambu a County.

4 Findings and discussions

In finding out the effects of the TV loss framed cervical cancer messages on screening uptake behavior among reproductive women in Kiambu County, the researcher looked at the frequency of those who had watched cervical cancer stories and found out that 321 out of 392 respondents responded as tabulated on the Table1 below. The responses captured on the elements of TV loss framed messages on cervical cancer.

Table 1: Elements of TV loss framed messages

Elements of los frame	Frequency	Percentage
Any woman above the age of 15 is at risk of getting cancer of the cervix	48	15.0
Cancer of the cervix is a painful and dangerous disease	113	35.1
Cervical cancer has no cure when detected in the late stages	80	24.2
An individual is at risk of dying of cervical cancer if screening is not done	30	9.3
Treating and preventing cervical cancer is very costly	53	16.4
Total	324	100.0

From the Table 1, among 324 who had watched cervical cancer on television (68 which is 17.3% had not watched) majority of the reproductive women in Kiambu County, 35.1% reported to had watched programmes which demonstrated cervical cancer is a painful and dangerous disease, 24.2% cervical cancer had no cure when detected in late stages, 16.4% treating cancer and preventing is very costly, 15.1% responded that any woman above the age of 15 is at risk of cancer of the cervix and 9.3% responded that an individual is at risk of dying of cervical cancer if screening is not done. The distribution of the elements of loss frame is an indicator to a number of issues. One is that cervical cancer being a painful disease makes reproductive women not to go for screening as a way of avoiding treatment pain. The fact that cervical cancer is unmanageable in the last stage hinders screening as a way of fearing to get negative results, the expensive nature of managing cervical cancer may not allow them to go for screening because may not afford to cater for the bill.

According to the 4 nurses and 3 victims interviewed, the television plays a role on reproductive women’s perception based on whatever they offer to them on cancer of the cervix. To them it is true cervical cancer is always deadly, causing massive agony and suffering to the victims and having weighty adverse effects on the welfare of their significant others and communities. Different treatment methods of the cervical cancer; aimed at removing the affected parts of the cervix, such methods are chemotherapy, cryotherapy, loop electro-surgical excision procedure amongst others are painful dangerous approaches portrayed by our television stations. In one way or another, this has made reproductive women avoid screening. They mentioned they have heard as well negative comments such as, “*Wacha ni kufe bila kujua kama niko na hi cancer,*” translated (I would rather die not knowing my cancer (cervical) status) from patients who the nurses attended to and their significant others. To them it’s not easy to convince reproductive women to go for screening as a result of loss element; cervical cancer is a painful and dangerous illness.

The fact that television is viewed to influence screening uptake behavior and behavioral changes agrees with Longstaff (2010), conclusions that television has power over the audience behaviors. On the other hand this finding validates Gallagher et al. (2011), research on health message framing effects on attitude, intentions and behavior found, loss frames are more expected to snatch people’s focus leading to patterns of behavior. Television coverage can reinforce and distort perceptions of health matters and as well contribute to stigmatization of health complications. Television coverage on cervical cancer can lead to non-compliance and inevitability of contracting and controlling the disease, and stress an individual.

4.1 TV Loss framed cervical cancer messages and screening uptake behavior

The researcher went ahead to find out the relationship between the TV loss framed cervical cancer messages and the screening uptake behavior among reproductive women in Kiambu County. The findings are as presented in Table 2.

Table 2: Loss framed cervical cancer messages and screening

Elements of loss framed messages	SCREENED		Total
	Yes	No	
Any woman above the age of 15 is at risk of cancer of the cervix	21	27	48
Cancer of the cervix is a painful and dangerous disease	36	74	110
Cervical cancer has no cure when detected in the late stages	32	48	80
An individual is at risk of dying of cervical cancer if screening is not done	14	16	30
Treating and preventing cervical cancer is very costly	15	38	53
Total	118	203	321

As presented in Table 2, the elements of loss framed messages on the cervical cancer; cervical cancer is a painful and dangerous disease had the highest number in terms of compliance to screening and non-compliance to screening; 36 had been screened while 74

had not been screened. Compliance as well as non-compliance could be as a result of avoiding pain and risks. Those reproductive women who responded that cancer of the cervix has no cure when detected in the late stages 32 had screened while 48 had not been screened, any woman above age of 15 is at risk of cancer of the cervix 21 had been screened while 27 had not been screened, an individual is at risk of dying of cervical cancer if screening is not done at 14 had been screened and 16 had not been screening and treating and preventing cervical cancer is very costly. The trend is revealed as tabulated that most of the reproductive women in Kiambu County had not been screened.

The nurses and the victims (4 nurses and 3 victims) interviewed on the elements of loss framed messages on the cervical cancer stories they watched on TV cost and pain was the major. To them the cervical cancer when aired by giving salience to the consequences they influence uptake or non-uptake of screening. As per the results transcribed from the interviews, women who are invited to confess about the disease talk much of the medical pain they went through, body weakness, the stigmatization they undergo through and how expensive it is to manage cervical cancer by any means.

According to one of the four nurses interviewed:

N1: Coverage of cervical cancer based on the costs by all means it will keep the reproductive women from screening. We are born selfish by nature and no one wants to undergo through pain of treatment or cost. As much it is true cervical cancer is deadly the angling of this cervical cancer stories has great impact. Having loss elements lead to fear of negative results, stigmatization of the victims, confusion and risk avoidance the pain thus low uptake of screening which makes it even harder when it comes to prevention, managing cervical cancer and prevention and dependent on screening.

These results collaborate with Andsager and Powers (2011), who highlights in their study; framing women’s health with a sense making approach: Magazine coverage of breast cancer and implants, people avoid losses. Borrowing Cissel (2012), elements of loss portrayed in the cervical cancer stories via the television influences the screening the screening uptake behavior. Women do more of avoiding pain and tend to prefer outcomes that are certain other than uncertain. Therefore, reproductive women fail to go for screening due to the fear of negative result and the severity of cervical cancer.

4.2 ANOVA results

The study sought to find out the statistical connection between the elements of TV loss framed cervical cancer messages and screening uptake behavior amongst reproductive women in Kiambu County. The outcomes were as demonstrated in Table 3 below:

Table 3: ANOVA results of Loss framed cervical cancer messages and screening uptake behavior

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.084	1	11.084	55.648	0.00 ^b
	Residual	63.539	319	.199		
	Total	74.623	320			

From the Table 2, the research went ahead to investigate whether there was statistical relationship between TV loss- framed cervical cancer messages and screening uptake behavior using ANOVA. The relationship was tested at 5% (0.05) significance level. If P is lesser than 5% (p<0.05) the relationship is considered to be statistically significant but if P is greater than 5% (P>0.05) there is no statistical significance. From the tabulated results P=0.00^b which implies there is significant statistical relationship between the elements of TV loss framed cervical cancer messages and screening uptake behavior amongst reproductive women in Kiambu County.

4.3 Regression results

Table 4: Regression results of loss framed cervical cancer messages and screening uptake behavior

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.042	.083		12.562	.000
	Loss frame	.134	.018	.385	7.460	.000

Based on the coefficients above, the following regression line was adopted by the study $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$ where the researcher reformulated the following model $X_1 = \alpha_0 + \alpha_1 V_1 + \alpha_2 V_2 + \alpha_3 V_3 + \alpha_4 V_4$.

Where;

X_1 = Loss frame

α stands for Alpha

$X_1 = \alpha_0 + \alpha_1 V_1 + \alpha_2 V_2 + \alpha_3 V_3 + \alpha_4 V_4$

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V₁= SusceptibilityV₂= SeverityV₃= CostV₄= Death

From the Table 4, the P value = 0.000; the P value is lesser than 5% thus significant statistical relationship between the elements of loss frame and screening uptake behavior of reproductive women in Kiambu County. This validates the Analysis of Variances (ANOVA) computation of there being no statistical relationship between loss frame elements and screening uptake behavior. Therefore, this is a clear indication of significant statistical relationship between the elements of loss frame and screening uptake behavior amongst reproductive women in Kiambu County. However, based on the regression line, then the study analyzed that loss frame had effects on the reproductive women screening uptake behavior in Kiambu County; a unit increase raises screening uptake behavior by 0.134 units.

These findings agree with prospect theory that highlights when the level of risk is great, individual reply well to messages that are loss framed. People avoid risk when faced with alternatives hence variations of behavior. Tversky (1979); Andsager and Powers (2001); Islam (2015), found that the elements of losses influences behavioral uptake or non- uptake and therefore health messages should focus on both costs and benefits of non-uptake and uptake behavior.

The lower screening uptake amongst reproductive women in Kiambu County as a result of loss framed messages validates Hovey et al. (2014), study: approach/ avoidance motivation, messages framing and skin cancer prevention: a test of the congruency hypothesis loss framed messages affects behavior. In their report they examined the outcomes of frames; intention, attitude and behavior which were followed by a conclusion that messages that are loss framed were not always convincing when it comes to promoting health screening and preventive behavior.

5. Conclusion

Cancer of the cervix is still a noteworthy burden in the world and in Africa. The cervical cancer screening uptake is still far from satisfactory in many countries. The attitude towards the illness and the risk factor affect screening practice and development of preventive measures for cervical cancer. As such, majority of the women die of the cervical cancer. This study found that cervical cancer screening uptake behavior depends on the TV loss framed cervical cancer messages. The reproductive women are likely to have positive behavior; that is change of their lifestyle behavior, go for screening if the cervical cancer stories are effectively framed and clearly designed. These messages should be angled in an understandable way, with no frames that may cause reproductive women to avoid screening. Issues of misconceptions, wrong perception and attitude on cervical cancer should be addressed by the media.

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