

INFLUENCE OF REPRODUCTIVE HEALTH COMMUNICATION CAMPAIGNS ON MEN'S PARTICIPATION IN MATERNAL HEALTH IN KENYA. A CASE OF THE BEYOND ZERO CAMPAIGN

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Abstract

In Kenya, the beyond zero campaign; an initiative of the first lady of Kenya has been used to improve maternal health. Despite these interventions, the numbers of maternal mortalities are still unacceptably high. This study is meant to inform policy makers on the necessary policy developments towards the inclusion of men in maternal and reproductive health programs. It is also meant to inform the reproductive health communication campaign developers in Kenya with regards to the necessary improvements on the campaigns to make them more effective in enhancing men's participation in maternal health in Kenya. Therefore, this study sought to determine the influence of reproductive health communication campaign on men's participation in maternal health in Kenya, the case of the Beyond Zero Campaign which was one of the longest existing reproductive health communication campaigns in Kenya. This study was meant to find out the influence of various communication campaign factors and to inform campaign designers and policy makers on how to enhance the effectiveness of such intervention towards improved maternal health. The study found that the credibility and the social and political power of the source of beyond zero campaign had an influence on the participation of men in maternal health. This study also found that the communication campaign messages received by the respondents were not persuasive to men since most were targeted towards women and not men. This study established that the channels employed to disseminate the beyond zero campaign were easily accessible though their influence on men's participation in maternal health was minimal.

Keywords: beyond zero campaign, health communication campaigns, health, men's participation

Background of the study

Men play a key role in decisions integral to maternal and newborn health. For example, family planning, including delaying first pregnancy, adequate birth spacing, reducing unplanned pregnancies and limiting the total number of pregnancies, positively impacts maternal health and

reduces maternal deaths (Singh, 2003). Men are often responsible for decision-making about family planning and use of contraceptives (Yue K, et al., 2010; Mehta M, 2002.; Ko IS, 2010.; Montgomery ET, et al., 2011.). Men also play a key role in determining women's access to critical health services, including antenatal and intrapartum care

(Dutta M, & Kapilashrami MC,& Tiwari VK, 2004) , through such mechanisms as determining the availability of transport for women to reach a clinic (Gross K, et al., 2012) and decisions that affect whether a woman can be successfully referred to a higher-level facility if required (Pembe A B, 2008). According to Brunson (2010), men need to know why ANC and skilled birth attendance are important, the risks associated with pregnancy and childbirth, how to prepare for childbirth and how to recognize signs of complications, in order to make informed decisions.

Men can positively influence maternal and child health in a variety of ways and have a right to the information they need to make decisions to protect their own health and that of their family (Holmes, 2001). Male involvement includes men making informed decisions with their partners about family planning or seeking and sharing information about appropriate health behaviors and care during pregnancy, childbirth and postpartum. Men can encourage and support antenatal care (ANC) attendance, ensure good nutrition and reduced workload during pregnancy, assist with birth preparations, and provide emotional support. A man can encourage and support good infant nutrition, including early and exclusive breastfeeding, and childhood immunization. He can take steps to prevent infection with STIs and HIV and transmission to his partner and child. Couples may also want the expectant father or new father to participate in clinical services, such as ANC or intrapartum care (Wegner, Landry, Wilkinson, & Tzani, 1998)

Given that men have a strong influence on women's health and their access to care, reproductive health programmes are increasingly trying to involve men (Drennan, 1998). These programs promote shared responsibility for family planning, assuming that women will be more likely to adopt and continue using a contraceptive method if they have their partner's active support.

The 1993–1994 Zimbabwe Male Motivation Campaign illustrates some of the challenges involved in reaching male audiences through the mass media and in encouraging them to change their attitudes and behaviour (Kim et al., 1996; Kim & Marangwanda, 1997). While the campaign increased men's sense of responsibility for family planning, it did not overcome deeply rooted attitudes towards gender-based decision-making.

Reproductive health practitioners have recognized that the failure to target men in programs has weakened the impact of reproductive health programs since men can significantly influence their partners' reproductive health decision-making and use of health resources (Mbizvo & Bassett, 1996). Moreover, studies have shown that men who are educated about reproductive health issues are more likely to support their partners in contraceptive use, use contraception themselves, and demonstrate greater responsibility for their children (Grady et al., 1996). Most importantly, women express great interest in wanting their partners to be involved in joint reproductive health decision-making. For example, a study in Ecuador surprisingly showed that 89% of women wanted their partner to accompany them on their next family planning visit and 94% would have liked their partner to be present during their family planning session (Roy & de Vargas Pinto, 1999).

The Beyond Zero Campaign

The Beyond Zero campaign is an initiative of the first lady of Kenya, Mrs. Margaret Kenyatta in partnership with the government of Kenya with the aim of promoting maternal, new born and child health in Kenya, at the same time controlling the prevalence of HIV, (Beyond Zero Foundation, 2015). This campaign was launched in January 2014 as part of the strategies towards achieving the millennium development goals. The strategic framework focuses on five key areas which include: accelerating HIV programs, influencing investment in high impact activities to promote maternal and child health and HIV control, mobilizing men as

clients, partners and agents of change, involving communities to address barriers to accessing HIV, maternal and child health services and providing leadership, accountability and recognition to accelerate the attainment of HIV, maternal and child health targets.

The campaign has been successful largely due to the first lady's passion and commitment to mobilize resources locally and internationally through strategic events such as the First Lady's Half Marathon. The FLHM is an annual event through which was organized to raise funds to increase access to better health care through provision of mobile clinics that would bring services closer to Kenyan mothers and children.

To date, the initiative has distributed 47 fully kitted mobile clinics across the 47 counties in the country to compliment respective county efforts towards access to health services especially among marginalized and underserved populations. These clinics provide services to those mothers and children including men who are not able to access health care services at all, especially in areas that do not have static health facilities.

This research was focused on the fourth strategy which involves the mobilization of men as clients, partners and agents of change towards improved maternal health, with the aim of evaluating whether that particular objective has been achieved with respect to improved maternal health.

This study was conducted in Kenya to assess the influence of the reproductive health communication campaigns and particularly the Beyond Zero Campaign on men's involvement in maternal health. The Beyond Zero Campaign was picked for this study, mainly because being an initiative of the First Lady, Mrs. Margaret Kenyatta, it's one of the communication campaigns that gained massive support from the government of Kenya, key personalities such as Melinda Gates, Rwandese First Lady Jeannette Kagame, among others as well as Kenyans of all walks of life. It's also one of the

longest existing communication campaigns that stretched over a period of three years, between January 2014 and December 2016.

This study was informed by the Elaboration Likelihood Model (ELM) which attempts to explain the process of persuasion, and, the Health Belief Model, (HBM) which is a behavior change theory. The study employed a descriptive survey design, whereby online questionnaires were used to collect data.

Statement of the problem

Getting men to participate in maternal health care which is dominated by women could be even harder. However, according to the study of, Zamawe, Banda & Dube, (2015) concluded that the use of mass media campaigns in promoting the involvement of men in antenatal care, childbirth and postnatal care is effective. They further recommended the inclusion of mass media in projects or interventions designed to promote men's engagement in maternal health. This research project therefore sought to determine the influence of reproductive health communication campaigns on men's participation in maternal health in Kenya.

Specific Objectives of the Study

1. To assess the influence of the source of the reproductive health communication campaigns on men's participation in maternal health in Kenya.
2. To evaluate the influence of the reproductive health communication campaigns messages on men's participation in maternal health in Kenya
3. To examine the influence of the reproductive health communication campaign channels on men's participation in maternal health in Kenya

Literature Review

In order for communication campaigns to be effective they need to have a theoretical underpinning which aids their development, implementation and evaluation and may integrate a number of theories in their design (Fischbein *et al.*, 1997; Valente, 2001). It is imperative to understand why people behave the way they do in order for behavioral change to be addressed through communication campaigns and the use of theory facilitates this process. This research is pinned on the elaboration likelihood model of persuasion and the health belief model.

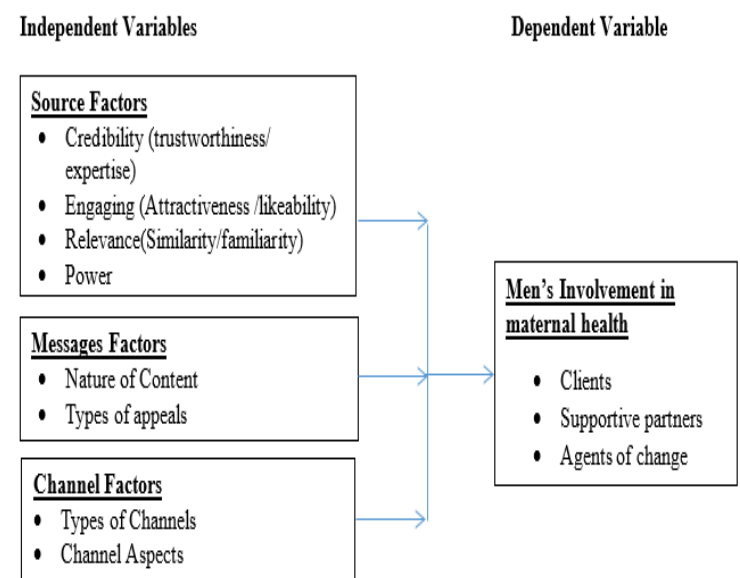
Elaboration Likelihood Model: The ELM is a dual-process model in that it claims there are two different mechanisms by which communication affects attitudes. Elaboration refers to the extent to which some individual thinks about or mentally modifies a message’s argument, and Likelihood refers to the probability of the occurrence of an elaboration. Elaboration is assumed to fall along a continuum ranging from no mental activity at all to considerable thinking on the central argument of an issue. The model tells us when a person should be particularly likely to elaborate, or not elaborate, on persuasive messages. The ELM assumes two routes or processes to persuasion: a central route and a peripheral route. The former implies considerable cognitive elaboration. That is, in central information processing, individuals carefully evaluate and think over the implications of the message ideas, and relate information to their own knowledge and values. This theory is relevant to this study as it relates to the message and source factors. According to Petty & Cacioppo, (1984) when people are unmotivated and unable to process a message, they tend to rely on simple cues in the persuasion context such as the expertise or attractiveness of the message source (although other cues may be used if they are more salient).

Health Belief Model: The HBM was first developed in the 1950s by social psychologists Hochbaum, Rosenstock and Kegels working in the

U.S. Public Health Services. The model was developed in response to the failure of a free tuberculosis (TB) health screening program. (Hochbaum, 1958; Rosenstock, 1960, 1966, 1974). Later, the model was extended to apply to people’s responses to symptoms (Kirscht, 1974) and to their behavior in response to diagnosed illness, particularly compliance with medical regimens (Becker, 1974).

Conceptual Framework

Figure 1: Conceptual Framework



Research Methodology

The study had a population comprising of 150,000 men, (within the reproductive age which according to the National Bureau of Statistics-Kenya and ICF International (2015), is between 15-49 years). The respondents were picked systematically from the ‘Kilimani Dads Nairobi (facebook group) which has 150,000 members (although these numbers keep growing every day). This group was particularly picked for this research because it’s a virtual community comprising of men drawn from every region of the country seeking to socialize and get parenting information. This research used a structured online questionnaire to collect data. This was used for the purpose of collecting primary quantitative data.

Results and Discussion

Source Factors and Men Participation on Maternal Health

According to this study, the source was determined to be the messenger who appears in the campaign to deliver information, demonstrate behavior or provide testimonials related to a particular subject matter. The researcher went ahead to determine if the respondents had ever heard about the Beyond Zero Campaign. The results were summarized in figure 2.

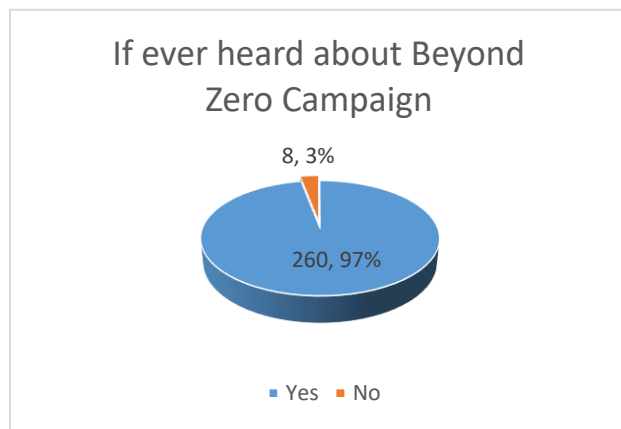


Figure 2: If ever heard about Beyond Zero Campaign

Results from figure 2 indicated that an overwhelming majority (260, 97%) of the respondents had heard about the Beyond zero campaign. The remaining 8 (3.0%) respondents indicated that they had never heard about the campaign. The beyond zero campaign is premised on the philosophy of harnessing the convening power of Her Excellency, the first Lady Margaret Kenyatta, to ensure that all Kenyan mothers deliver safely, and their children are health and HIV free through institutionalizing the contributions of private and public sectors and development partners; mobilizing the contributions of private and public sectors and development partners and catalyzing innovation and accelerating action by stakeholders and political leaders. The researcher was prompted therefore to go ahead and ask the respondents to indicate the most correct assertion

with regard to influence of the source of the Beyond Zero Campaign and the results were summarized in table 1.

Table 1: Source of information about Beyond Zero Campaign

	Frequency	Percent
The First Lady of Kenya	26	9.7
Bill Boards	64	23.9
Electronic Media	38	14.2
Social Media	48	17.9
Rallies and Campaigns	92	34.3
Total	268	100.0

McGuire, (1981), defines the term source in communication campaigns as the person involved in communicating a marketing message either directly or indirectly. From the results in table 4.3 majority of the respondents (92, 34.3%) obtained the information about beyond zero campaign from rallies and campaigns about the program. This was followed by 23.9% of the respondents who indicated that they obtained the information from erected bill boards within the country about the program. Another 17.9% of the respondents indicated that they obtained the same information from social media whereas the other 14.2% of the respondents obtained the information from electronic media. Only 9.7% of the respondents obtained the information from the first lady herself. From this result, it was evident therefore that the dissemination of information about the beyond zero campaign was done well and majority of the respondents had the information or participated in the program. The researcher began by understanding if the source of the information was credible as perceived by the respondent and the results were summarized in table 2.

Table 2: The source of Beyond Zero is Credible

	Frequency	Percent
Strongly agree	230	85.8
Agree	6	2.2
Neutral	16	6.0
Disagree	10	3.7
Strongly disagree	6	2.2
Total	268	100.0

Results from table 2 shows that majority (85.8%) strongly agreed that the source was very credible and could be relied upon in facilitating the participation of men on maternal health. This was because the source was indicated to be trustworthy. On the other hand, 6.0% of the respondents were neutral about the credibility of the source, 3.7% of them disagreed, while 2.2% agreed and disagreed respectively. The credibility of source factors was thus seen to be influential in enhancing men’s participation in maternal health. these findings are in line with Kreuter & McClure (2004), who argued that expert sources are generally more persuasive than those lacking expertise. The researcher went ahead to establish whether the source of beyond zero was powerful in social and political aspects. Results were summarized in table 3.

Table 3: The source of Beyond Zero is powerful (Socially/Politically)

	Frequency	Percent
Strongly agree	16	6.0
Agree	104	38.8
Neutral	52	19.4
Disagree	31	11.6
Strongly disagree	65	24.3
Total	268	100.0

The social and political source of beyond zero campaign will influence the participation of men on maternal health. According to Rice &Atkin (2013),

how powerful the source is will determine if they will actively participate on maternal health. Results from table 3 indicated that majority (38.8%) of the respondents agreed that the source was powerful and therefore could influence men participating in maternal health. However, 24.3% of the respondents had a contrary opinion and therefore strongly disagreed that the sources were not very powerful and therefore could not influence men’s participation on maternal health. On the other hand, 19.4% of the respondents were neutral while 11.6% of the respondents disagreed. About 6.0% of the respondents strongly agreed. The researcher also went further to examine if the source of beyond zero campaign was engaging and therefore attractive and likeable. Various reactions were elicited according to this variable and therefore the results were summarized in table 4

Table 4: The source of beyond zero campaign is engaging (Attractive/Likeable)

	Frequency	Percent
Strongly agree	36	13.4
Agree	156	58.2
Neutral	53	19.8
Disagree	19	7.1
Strongly disagree	4	1.5
Total	268	100.0

The findings from table 4 had shown that majority (58.2%) of the respondents agreed with the fact that the source of beyond zero campaign was engaging. On the other hand, 19.8% of the respondents were neutral, 13.4% of the respondents strongly agreed while only 4.0% strongly disagreed. This had an indication that the source of the beyond zero campaign was engaging which led to the enhancement of men’s participation in maternal health. These finding are consistent with Smith& De Houwer, (2014) who found that sources that are liked, or judged to be socially attractive, are also more persuasive than others, particularly when the

message being communicated is not desirable. Finally, the researcher went further ahead to determine whether the beyond zero campaign was relevant to the respondent and the results were summarized in table 5.

Table 5: The source of beyond zero campaign is relevant to me

	Frequency	Percent
Strongly agree	28	10.4
Agree	152	56.7
Neutral	72	26.9
Disagree	12	4.5
Strongly disagree	4	1.5
Total	268	100.0

As can be seen on findings in table 5, majority (56.7%) of the respondents agreed that the source was relevant and therefore could be relied upon in influencing the participation of men on maternal health. This was followed by 26.9% of the respondents who were neutral, 10.4% of the respondents strongly agreed while 4.5% of the respondents disagreed. Finally, only 1.5% of the respondents strongly disagreed. This therefore indicated that men who participated in maternal health were influenced by the source of beyond zero campaign which was relevant and familiar to them. These findings are in agreement with Kreuter & McClure, (2004), who also argue that when a person perceives a source to be similar to him- or herself, ratings of the source are often more favorable.

Message Factors and Men’s Participation on Maternal Health

Most campaigns present persuasive appeals emphasizing reasons why the audience should adopt the advocated action or avoid the prescribed behavior. The researcher wanted to determine how message factors influence men to participate on maternal health. The researcher asked the

respondents if the beyond zero campaign’s message content persuaded men to participate in maternal health. Results were summarized in figure 3.

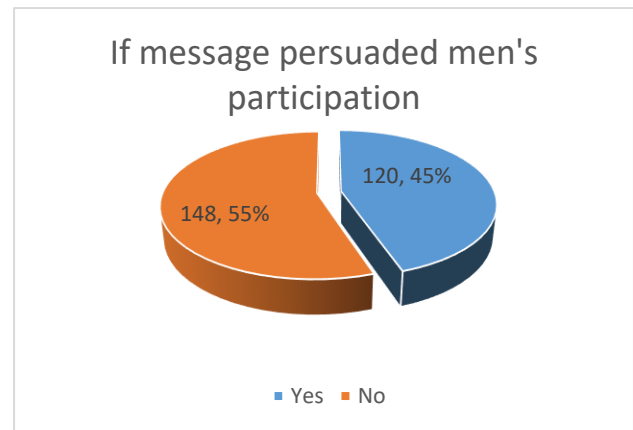


Figure 3: If message persuaded men's participation

Results from figure 3 clearly indicated that majority (148, 55%) of the respondents were not persuaded to engage in maternal health by the message factors while 120, 45% of the respondents were persuaded to participate by the message factors. Because majority were not persuaded, the researcher went ahead to ask reasons and the results were summarized in table 6.

Table 6: Assertion that explains if No

Assertion	Frequency	Percent
The message received was not persuasive enough	10	3.7
The message received was not meant for men	11	4.1
I did not understand the content of the message received	67	25.0
I was not exposed to any message from the beyond zero campaigns	60	22.4
N/A	120	44.8
Total	268	100.0

The findings from table 6 shows that 10 (3.7%) of those who said no had a perception that the message received was not persuasive enough and therefore could not persuade the respondent to participate in maternal health. On the other hand, about 4.1% of

the respondents indicated that the message received was not meant for men and therefore could not persuade the respondent to participate in maternal health, these findings are in line with Greene et al., (2000), arguments that reproductive health programmes were in the past focused exclusively on women, with little or no involvement of men. Furthermore, majority (25.0%) of the respondents who said no indicated that they did not understand the content of the message received and finally about 22.4% of the respondents said that they were not exposed to any message from the beyond zero campaigns and therefore were not persuaded to participate on maternal health. However, there are those respondents who agreed that the beyond zero campaign’s message content persuaded them to participate in maternal health. The researcher asked them to explain why and the results were summarized in table 7.

Table 7: How the message content influenced Participation

	Frequency	%
By creating awareness on men’s participation in maternal health	24	9.0
By providing instructions on how men can participate in maternal health	52	19.4
By emphasizing on reasons why men should participate in maternal health	44	16.4
N/A	148	55.2
Total	268	100.0

Table 7 indicates that the beyond zero campaign messages influenced the respondents by creating awareness on men’s participation on maternal health. This was said by 9.0% of the respondents. On the other hand, others (19.4%) were influenced by providing instructions on how men can participate in maternal health while the other 16.4% of them were influenced by the fact that the message emphasized on reasons why men should participate on maternal health. This study therefore

found that the messages providing instructions on how men can participate in maternal health were more persuasive. These findings are supported by Rice & Atkin (2013) who argue that in many campaign situations, informational messages that seek to create awareness or provide instruction, play an important role. the researcher finally asked what kind of an appeal the messages received aroused to the respondents. In this, the researcher wanted to determine the perception of the message received by the respondent and what kind of feelings did the message elicit to the respondents. The results were summarized in table 8.

Table 8: appeals aroused by the beyond zero campaign messages in the respondents.

	Frequency	%
Fear Appeals (Appeals emphasizing the serious outcome from not taking action)	72	26.9
Positive Appeals (Appeals that asked people to do something positive)	102	38.1
Factual/ Logical Appeals (Appeals that conveyed facts, figures and logical information)	50	18.7
Emotional Appeals (Appeals that aroused emotions and feelings)	26	9.7
One-sided messages (Appeals that only presented advantages of taking action)	18	6.7
Total	268	100.0

The message aroused fear appeals to some (26.9%) respondents. These are appeals that emphasize the serious outcome from not taking action. The other respondents (38.1%) indicated that it aroused a positive appeal in which the message asked the respondents to do something positive. This study therefore found that the messages received that aroused emotional appeals were more likely to influence the participation of men in maternal health. This is in contrast with Maloney, Lapinski, & Witte. (2011), who argued that the most basic

types of appeals that can be used in health communication is the fear-arousal appeals. The fear-arousal appeal messages are conveyed to frighten and arouse people into action by emphasizing the serious outcome from not taking action. According to this study, the message bearing one-sided appeals, were the least persuasive in enhancing men’s participation in maternal health.

Channel Factors and Men’s Participation on Maternal Health

A channel was defined by the respondent as a medium through which a message is transmitted to its intended audience. The researcher therefore used channel factors as one of the variables that influence the men participation on maternal health. Different channels create different perceptions on various subject matters and therefore important factor to determine the influence. The researcher therefore asked the respondents to explain from which channel did they receive the beyond zero campaign message. The findings were summarized in figure 4.

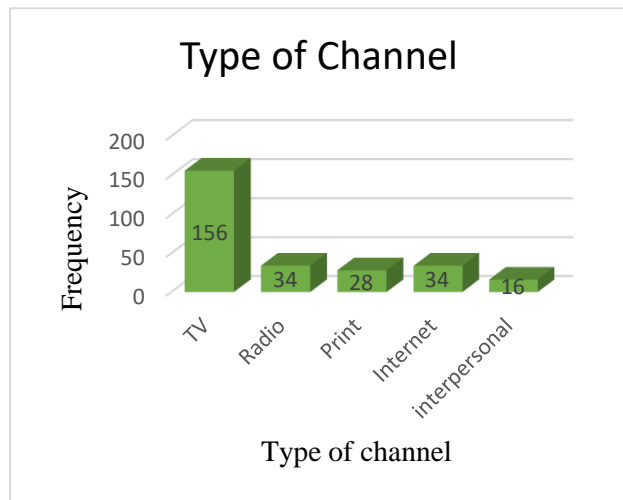


Figure 4: Type of channel

According to Maibach, Kreps. & Bonaguro, (2002) strategic campaign planning involves the selection of communication channels on the basis of the target audiences channel use characteristics and preferences in analyzing the channels available for

use. Results from figure 4 indicate various types of channels used by respondents. Majority (58.2%) received the beyond zero campaign messages from televisions. This was followed by an equal percentage (12.7%) of the respondents who indicated that they received the information through radio and internet respectively. The other 10.4% respondents received the message from print media while the rest 6.0% received the message from interpersonal contacts which they termed as face to face. The researcher therefore went ahead to determine the characteristics of the channel that influenced the respondent’s participation in maternal health in reference to beyond zero campaign messages and the results were recorded in table 9.

Table 9: Aspects of the channel that influenced men’s participation in maternal health

	Frequency	%
Interactivity (Allows for the involvement of users in terms of feedback and exchange of information)	48	17.9
Credibility (It is easily trusted and believed in)	56	20.9
Accessibility (It is easy to reach and use)	100	37.3
Specificity (It has the ability to target specific subgroups or individuals)	28	10.4
High reach (The message is exposed to high proportion of the population)	36	13.4
Total	268	100.0

The findings from table 9 indicated that majority (37.3%) of the respondents were easily influenced to participate in maternal health through the channels that were easily accessible while 20.9% of the respondents indicated that they were influence by channels that were credible, other respondents indicated (17.9%) that the influence of the channel was as a result of its interactivity which allowed for

the involvement of users in terms of feedback and exchange of information. On the other hand, 13.4% of the respondents were influenced by channel that had a high reach. According to Salmon & Atkin (2003), different channels have different strengths and weaknesses, It is therefore preferable for campaign planners to use multiple channels of communication to maximize individual channels strengths and overcome its weaknesses by using it in tandem with a complementary channel (Maibach, Kreps. & Bonaguro, 2002).

Men’s Participation on Maternal Health

Men can constructively be engaged as clients of reproductive health messages and services; as supportive partners to women and as agents of change in the family and the community. The issue of maternal health has been predominantly seen and treated as a purely feminine matter. The involvement of men in ensuring and enhancing maternal health is actually a new idea but not much has been done in practical terms in the developing world. This paper is aimed at examining the influence of reproductive health communication campaigns on men’s participation in maternal health in Kenya with strict reference to the beyond zero campaign; and the need for men to have a change of attitude and become involved in contributing towards maternal health issues. The paper highlights some forms of source factors, message factors and the channel factors that can persuade the male partners to participate in maternal health. It is hoped that an examination of such factors will enable one see the need for male involvement in maternal health. The researcher went further to ask the respondents if they had ever participated in maternal health and the results were summarized in figure 5.

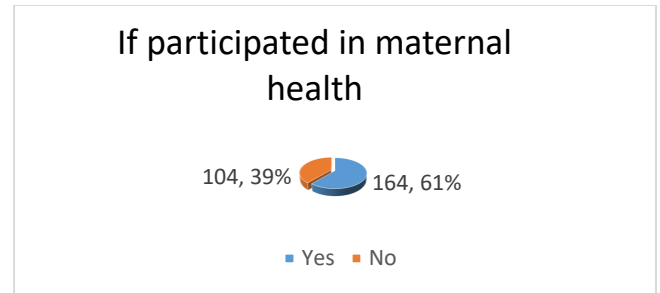


Figure 5: If Participated in Maternal Health

Results indicated that majority of the respondents (61%) had participated in maternal health. The rest 39% of the respondents indicated that they had never participated in maternal health. The traditional system in an African setting spelt out roles which both men and women should play in the family as well as in the community. This therefore prompted the researcher to get the reactions of their response. The researcher began with those who indicated that they had participated in maternal health and therefore how beyond zero campaign influenced their participation. The results were summarized in table 10.

Table 10: How beyond Zero influenced men’s participation on maternal health

	Frequency	%
I acquired knowledge on my role as a man in maternal health	38	14.2
I acquired information on the need for use of skilled birth attendants	14	5.2
I accompanied my partner/wife to the Antenatal Clinics	69	25.7
I facilitated my wife to attend ANC and use a skilled birth attendant during delivery	35	13.0
I shared the acquired knowledge with my fellow men and encouraged them to also participate in maternal health	12	4.4
N/A	104	38.8
Total	268	100

The finding as summarized in table 10 indicated that 14.2% of the respondents acquired knowledge on their role as men in maternal health. This was an indication that the campaign helped them understand the role they played in maternal health. On the other hand, 5.2% of those who said that they had participated in maternal health indicated that the campaign helped them acquire information on the need for use of skilled birth attendants. For that reason, then, men had now known the importance of having skilled birth attendants which helped their wives deliver in a good and professional manner. The campaign also enabled men learn the importance of accompanying their partners to the antenatal clinics. This was an opinion of 25.7% of the respondents who had participated on maternal health through beyond zero campaign. Finally, they (4.4%) shared the acquired knowledge from the beyond zero campaigns with fellow men and encouraged them to also participate in matters of maternal health. For those who did not participate in maternal health, the researcher summarized their reasons in table 11.

Table 11: Reasons why the campaign did not influence men to participate in maternal health

	Frequency	%
My culture does not allow men to get involved in maternal health	32	11.9
The health facilities are usually too congested making it not conducive for men	28	10.4
The health care providers are usually rude	16	5.9
I am usually too busy at work	26	9.7
Lack of Sensitization	2	0.7
N/A	164	61.2
Total	268	100.0

The findings from table 11 indicated that 11.9% of the respondents said that they did not participate in maternal health and therefore the beyond zero campaign did not influence them because their

culture did not allow men to get involved in maternal health. On the other hand, 10.4% of the respondents indicated that the health facilities are usually too congested making it not conducive for men to participate in maternal health. Further, 5.9% of the respondents indicated that the health care providers are usually rude and easy for only women to cope with such situation. About 9.7% of the respondents indicated that they are usually busy at work and could not therefore engage in matters of maternal health and instead left the mandate to their wives who were not very busy. Finally, about 0.7% of the respondents indicated that they lacked sensitization on maternal health. According to Byamugisha et al., (2010), there are different factors which have been identified in other studies as barriers to male involvement in the ANC and they include: Health-facility factors, Cultural factors and Socio-Economic factors.

Conditional Tests for Multiple Regression

Regression can only be accurately and properly estimated if the basic assumptions of multiple linear regressions are observed. Therefore, various diagnostic tests which included sampling adequacy tests, normality tests and autocorrelation tests were conducted to ensure accuracy of the results.

Sampling Adequacy Test

The researcher considered the use of Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy which was conducted to determine adequacy of the sample size. According to Magd (2008), KMO is an index used to examine and justify the appropriateness of application of Factor Analysis; values between 0.5-1.0 indicate that a factor is significant. The KMO statistic values varies between 0 and 1 in which a value of 0 indicates that the sum of partial correlations is large relative to the sum of correlations, indicating diffusion in the pattern of correlations. A value close to 1 indicates that patterns of correlations are relatively compact. In this case, Kaiser (1974) recommended accepting

values greater than 0.5 as acceptable. Table 12 illustrates the KMO values for this study.

Table 12: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.755
Bartlett's Test of Sphericity	Approx. Chi-Square	16.652
	df	5
	Sig.	.005

The results in Table 12 indicated that the KMO test of the variables of this study produced an appropriate value of 0.755 which is more than 0.7 with the implication that the sample size was adequate for further analysis for purposes of generating the research findings for this study. This was supported by the Bartlett's test of Sphericity which had a chi-square value of 16.652 with a p-value of 0.005 which is less than 0.05. Since the p-value is less than 0.05 this shows that there is a strong relationship among the study variables under investigation and hence the Bartlett's test is highly significant.

Autocorrelation Test

Autocorrelation is correlation between the residue terms for any two observations; it is expected that the residue terms for any two observations should be independent (Field *et al.* 2005). Durbin-Watson test was used to test for the presence of autocorrelation between variables. According to Gujarati (2004), Durbin-Watson statistic ranges from 0 to 4. A value near 0 indicates positive autocorrelation while a value close to 4 indicates negative autocorrelation. On the other hand, a value ranging from 1.5 to 2.5 indicates that there is no presence of statistically significant autocorrelation, thus it was applied in the study according to table 14.

Table 14: Durbin-Watson Model Summary^b

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate	Durbin-Watson
1	.616 ^a	.380	.373	2.75454	.177

a. Predictors: (Constant), Channel, source, Message

b. Dependent Variable: Men participation

The most celebrated test for detecting serial correlation is that developed by statisticians Durbin and Watson (Gujarati, 2004). Table 14 shows that the value for Durbin-Watson for the general model was 0.177 which is close to 0 and therefore indicating that there existed positive autocorrelation which ensured the independence of errors and enhanced accuracy of the regression models.

Correlation Analysis

Correlation analysis was conducted in order to determine the direction and the strength of the relationship between the dependent variable and independent variables. In this study Pearson correlation coefficient was used to determine the magnitude and the direction of the relationships between the dependent variable and independent variables. Pearson Correlation Coefficient was computed to show the relationship existing between the variables and the results were presented in Table 15.

Table 15: Correlation output

		source	Message	Channel	Men participation
Source	Pearson	1	.643**	.333**	.523**
	Correlation				
	Sig. (2-tailed)		.000	.000	.000
	N	268	268	268	268
Message	Pearson	.643**	1	.473**	.576**
	Correlation				
	Sig. (2-tailed)	.000		.000	.000
	N	268	268	268	268
Channel	Pearson	.333**	.473**	1	.199**
	Correlation				
	Sig. (2-tailed)	.000	.000		.001
	N	268	268	268	268
Men participation	Pearson	.523**	.576**	.199**	1
	Correlation				
	Sig. (2-tailed)	.000	.000	.001	
	N	268	268	268	268

** Correlation is significant at the 0.01 level (2-tailed).

The values of the correlation coefficient (R) are supposed to be between -1 and +1. A value of 0 implies no relationship, +1 correlation coefficient indicates that the two variables are perfectly correlated in a positive linear sense, that is, both variables increase together while a values of -1 correlation coefficient indicates that two variables are perfectly correlated in a negative linear sense, that is, one variable increases as the other decreases (Sekeran, 2008). According to this study, the researcher wanted to determine the relationship between the independent variables and the dependent variable.

A correlation analysis between source factors and men participation in maternal health in Kenya indicated a strong positive correlation with a Pearson correlation coefficient of 0.523 which is significant at 0.01 significant level with a p-value of 0.000. This kind of a relationship shows that source factors contributed heavily to the men participation in maternal health. On the other hand, a correlation between message factors and their influence to men participation on maternal health also indicated a strong positive correlation with a

correlation coefficient of 0.576 which is also significant at 0.01 significance level. It also indicated that for men to participate in maternal health, message factors play a very noble role. On the other hand, the researcher also found a weak positive relationship between channel factors and their influence to men participation to maternal health. This was seen by a correlation coefficient of 0.199 which was significant at 0.01 significance level with a p-value of 0.000.

Regression Analysis

Regression analysis was done in order to measure the ability of the independent variables to predict an outcome in the dependent variable where there is a linear relationship between them. The ANOVA was conducted to test the relationship between the dependent and independent variable. According to Anderson *et al.* (2002) Analysis of Variance can be used to test the relationship between independent variables on the dependent variables.

Cooper and Schindler (2010) argued that regression analysis can also be used determine the strength of the relationship between the independent and dependent variables and to determine the combined effect of all the independent variables on the dependent variable. The coefficient of determination (R^2) was used to measure the change in dependent variable explained by the change in independent variables. F –test was carried out to evaluate the significance of the overall model and to define the relationship between the dependent variable and independent variables; t- test was used to test the significance of the individual independent variables to the dependent variable. In fitting the multiple linear regression model, a regression analysis conducted was summarized in tables 16, 17 and 18.

Table 16: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.616 ^a	.380	.373	2.75454

a. Predictors: (Constant), Channel, source, Message

Table 17: ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1227.627	3	409.209	53.932	.000 ^b
Residual	2003.101	264	7.588		
Total	3230.728	267			

a. Dependent Variable: Men's participation

b. Predictors: (Constant), Channel, source, Message

Table 18: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	-4.903	1.187		-4.130	.000
	source	.276	.066	.264	4.175	.000
	Message	.923	.137	.456	6.724	.000
	Channel	-.184	.097	-.104	-1.894	.059

a. Dependent Variable: Men's participation

Table 16 indicated the regression model summary while table 17 shows the analysis of variance. The R value represents the simple correlation and is 0.616 which indicates a high degree of correlation between the dependent and independent variables. The R Square indicates how much the total variation in the dependent variable can be explained by the independent variable. It is also called the coefficient of determination. In this case, it is 0.380 which means the independent variables determines 38.0% of the dependent variable.

Table 17 is the ANOVA table, which reports how well the regression equation fits the data (predicts the dependent variable). This table indicates that

the regression model predicts the dependent variable significantly well. The sig of .000 indicates the statistical significance of the regression model that was run. Here, $p = 0.000$, which is less than 0.01, and indicates that, overall, the regression model statistically significantly predicts the outcome variable (it is a good fit for the data).

In fitting the regression model, the researcher determined the regression coefficients which showed the extent to which each independent variable contributed to the dependent variable and the results were shown in table 18.

The fitted model

$$Y = -4.903 + .276X_1 + .923X_2 - .184X_3 + \epsilon$$

Where:

Y = Men's Participation in maternal health

X₁ = Source Factors

X₂ = Message Factors

X₃ = Channel Factors

ε = Error term

Summary of Findings

Source Factors and Men Participation on Maternal Health

The source was determined to be the messenger who appears in the campaign to deliver information, demonstrate behavior or provide testimonials related to a particular subject matter. The researcher went ahead to determine if the respondents had ever heard about the Beyond Zero Campaign. The beyond zero campaign is premised on the philosophy of harnessing the convening power of Her Excellency, the first Lady Margaret Kenyatta, to ensure that all Kenyan mothers deliver safely, and their children are health and HIV free through institutionalizing the contributions of private and public sectors and development partners; mobilizing the contributions of private and public sectors and development partners and catalyzing innovation and accelerating action by

stakeholders and political leaders. The dissemination of information about the beyond zero campaign was done well and majority of the respondents had the information or participated in the program. Every source of particular information is perceived to have raised some kind of feelings to the recipient. The study also found that the credibility of source factors will drive to men participating on maternal health because they source pulls the urge for men to engage actively in ensuring that their wives get a desired treatment when it comes to matters of maternal health. The study also found that the social and political source of beyond zero campaign will influence the participation of men on maternal health. How powerful the source is will determine if they will actively participate on maternal health. The researcher also went further to examine if the source of beyond zero campaign was engaging and therefore attractive and likeable. Majority of the respondents agreed with the fact that the source of beyond zero campaign was engaging. This had an indication that the source actually drove men to participation in maternal health because it forced them to participate in it. The beyond zero campaign involvement in reproductive health programs indicated that there had been an increase in health problems and therefore targeted both male and female. Initially, it was known that matters to do with maternal health were only for female, but today, the benefit of targeting both male and female has been realized. The beyond zero campaign sources was found to be engaging both the male and female and therefore helped in the participation of male on maternal health.

Message Factors and Men's Participation on Maternal Health

The researcher wanted to determine how message factors influence men to participate on maternal health. The researcher asked the respondents if the beyond zero campaign's message content persuaded men to participate in maternal health. Majority of the respondents were not persuaded to

engage in maternal health by the message factors. As regards to how the message content influenced participation, the study found that the beyond zero campaign messages influenced the respondents by creating awareness on men's participation on maternal health. This was said by 9.0% of the respondents. The study therefore determined that the way the message is received determines if an individual could participate in a certain aspect. In this case, the way the message is received by men from the beyond zero campaign determines whether they participate in maternal health or not. The researcher finally asked what kind of an appeal the messages received aroused to the respondents. The message received was perceived to be implemented the way it was received. If it informed the men on the goodness of participating in maternal health, therefore the respondents could receive it like that and could be persuaded to participate. On the other hand, the message received had factual and logical appeals to the respondents. These are appeals that conveyed facts, figures and logical information to the perceived recipient of the information. This study therefore found that the messages received by the respondents were perceived to contain real facts about the participation of men on maternal health, the figures contained and information were logical with prove and explained themselves reasons why men should participate in maternal health.

Channel Factors and Men's Participation on Maternal Health

A channel was defined by the respondent as a medium through which a message is transmitted to its intended audience. The researcher asked the respondents to explain from which channel did they receive the beyond zero campaign message. Majority were of the opinion that they received the beyond zero campaign from televisions. This was followed by an equal percentage of the respondents who indicated that they received the information through radio and internet respectively. The researcher went ahead to determine the

characteristics of the channel that influenced the respondent's participation in maternal health in reference to beyond zero campaign messages. Majority (37.3%) of the respondents found the channel accessible. The channel was easy to reach. This therefore indicated that the respondents could easily get influenced and persuaded to actively participate in matters of maternal health. The study indicated that the channel exposed the message to high proportion of the population. Using all these characteristics, the respondents found a reason to be persuaded to involve them on maternal health.

Conclusions

The study made conclusions based on the general and specific objectives. The general objective of the study was to establish the influence of reproductive health communication campaigns on men's participation in maternal health in Kenya. The study examined the source factors, message factors and the channel of communication factors. Regarding the source factors, the study concluded that there were various sources of information that respondents obtained information about beyond zero. These included The First Lady of Kenya, Bill Boards, Electronic Media, Social Media and Rallies and Campaigns. Majority of the respondents agreed that the sources they received information from were credible. Given that Kenya has got many media outlets, information dissemination, especially on health, is useful. The situation is even worse since the media has the power to change and influence opinions of men about a particular issues, like in this case, maternal health. The study therefore concluded that the source of information determined men's participation on maternal health. A correlation analysis between source factors and men participation in maternal health in Kenya indicated a strong positive correlation with a Pearson correlation coefficient of 0.523 which is significant at 0.01 significant level with a p-value of 0.000. This kind of a relationship shows that source factors contributed heavily to the men participation in maternal health.

Regarding message factors, the researcher wanted to determine how message factors influence men to participate on maternal health. The study made a number of conclusions. The study revealed that message content persuaded men's participation on maternal health. On the other hand the study indicated that the message received that was not meant for men could not persuade the respondent to participate in maternal health. Furthermore, majority of the respondents indicated that they did not understand the content of the message received and therefore could not be persuaded. Finally the study concluded that depending on how the message was received and the content it carried, majority of the men were persuaded to participate in maternal health. a correlation between message factors and their influence to men participation on maternal health also indicated a strong positive correlation with a correlation coefficient of 0.576 which is also significant at 0.01 significance level. It also indicated that for men to participate in maternal health, message factors play a very noble role.

Finally, according to channel factors, the researcher used channel factors as one of the variables that influence the men participation on maternal health. The study concluded that different channels create different perceptions on various subject matters and therefore important factor to determine the influence. The researcher therefore asked the respondents to explain from which channel did they receive the beyond zero campaign message. The study concluded that the use of television was the most sources that disseminated information about men's participation in maternal health. The researcher found a weak positive relationship between channel factors and their influence to men participation to maternal health. This was seen by a correlation coefficient of 0.199 which was significant at 0.01 significance level with a p-value of 0.000.

Recommendations

Based on the findings and conclusions of this study, the researcher made the following recommendations;

1. The beyond zero campaign should engage source factors that can reach to every man in the society in order to enhance their participation to maternal health. The study found that only a number of men had information about beyond zero. The sources of information used were not influential enough to deliver the information to men and persuade them to engage in maternal health.
2. On the other hand, the researcher wanted to determine how message factors influence men to participate on maternal health. The study recommended that the campaign should enhance clarity in the content of the message in order to persuade men to participate in maternal health. In most cases, men tend not to participate in maternal health and see it as a reserve for women, and it is with this reason that the campaign messages have to incorporate men and enhance their participation in maternal health.
3. Finally, different channels create different perceptions on various subject matters and therefore important factor to determine the influence of men participation. There exist many channels and therefore the study recommended that beyond zero should use channels that are universally accessible and that can influence a large percentage of men.

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