INTERNATIONAL JOURNAL OF SOCIAL Sciences and Information Technology
ISSN 2412-0294 www.ijssit.com

http://www.ijssit.com

IMPACT OF EXPOSURE TO MYTH ONLY MESSAGE FRAME (MOF) FORMAT VARIATION ON WOMEN'S INTENTION TO ACCEPT TETANUS VACCINE IN NAROK COUNTY, KENYA

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***Abstract**: Tetanus still remains a cause of death worldwide and is associated with a high case mortality, particularly in the developing world (Kenya included). Message format variation is an essential tool that can and has been used to influence people positively to accept tetanus vaccines. This study is part of continuous work that sought to evaluate the impact of exposure to different message formats variations on women's intention to accept TTCV vaccine with a specific objective to find out the impact of exposure to Myth Only Message Frame (MOF) format variation on women's intention to accept TTCV vaccine in Trans Mara East sub county of Narok County, Kenya. The study focused on women in reproductive age of 15- 45 years of Trans Mara East Sub County in Narok County. This specific area is in the larger Narok County which is categorized as one of the high risk areas for tetanus by WHO. This study recommends the need to identify effective communication message formats and exposure to Myths Only Message Frame (MOF) capable of persuading women and girls to accept TTCV in order get better long term and positive yielding results in tetanus disease management among Kenyan women. There is also a need of a communication strategy that should focus on the truth, making it easier to process and more handily remembered which increases the chance that the correct message sticks instead of exposure to Myth Only Message Frame (MOF).*

***Keywords**: Disease management, Message frame, Tetanus toxoid containing vaccine*

1. Introduction

Tetanus is an acute, often fatal, disease caused by a toxin produced by *Clostridium Tetani*. It occurs in newborn infants born to mothers, who do not have sufficient circulating antibodies to protect the infant passively, by Tran's placental transfer (Demicheli Cochrane, 2007). Maternal and neonatal tetanus is a deadly disease that can occur as a result of unclean baby deliveries or abortions and unhygienic umbilical cord practices (applying cow dung, soil, ashes to the wound and cutting the cord with unclean instruments e.g. dirty razor blades and knives (Kenya's ministry of health fact sheet, 2016). However, tetanus can be prevented through immunization with tetanus-toxoid-containing vaccines (TTCV) and Neonatal tetanus can be prevented by immunizing women of reproductive age, with TTCV, either during pregnancy or outside of pregnancy. This protects the mother and - through a transfer of tetanus antibodies to the fetus - also her baby (Pub medical journal, 2013). Immunization of pregnant women and/ or women of childbearing age with at least two doses of tetanus toxoid is estimated to reduce mortality from neonatal tetanus by 94% (Hannah, Joy, Jos, Martha, & Simon, 2001).

A Canadian "pro-life news" website wrote about the Kenya Catholic Doctors Association who claimed that they found an antigen that causes miscarriages in a vaccine being administered to 2.3 million girls and women

by the World Health Organization and UNICEF and through their Priests throughout Kenya, they advised their congregants to refuse the vaccine. Such claims of sterilization have been there for more than 20 years and have been repeatedly debunked by World Health Organization (WHO) and other partners. In Kenya, these misconceptions i.e. myths have led to tetanus vaccine hesitancy among women and girls particularly those in children bearing age who are the main targets for vaccination during SIA campaigns.

2. Problem statement

Kyu et al., (2017) observes that in 2015 tetanus mortality rates were still high in a number of countries and the highest mortality rates (more than 1,000 deaths per 100,000 population) were observed in Somalia, South Sudan, Afghanistan and Kenya. The world health organization (WHO) points out that, in the year 2000, Kenya was among the 59 countries having 11–50 of its districts at high risk of NT deaths. Exclusive mass communications-based interventions can improve vaccine uptake, and combining mass communications with other approaches can contribute to effectiveness (ECDC technical report, 2012). In Kenya the ministry of health with other partners have tried to dispel myths about tetanus disease and vaccines during particular health interventions that they have carried out before through printed materials, electronic mass media campaigns, posters etc. Ayobanjo and Posi (2016) found out that a low level of awareness on the dosage of TT vaccine which reflected in the 0% uptake of TT4 and TT5 by respondents was to be blamed. Further analysis indicated a significant association between respondent's awareness and TT vaccine completion at 82.8% where in Pakistani Low coverage of TT vaccine is largely influenced by poor knowledge among other factors (Yasir Shafiq, 2017). Despite media attention about various vaccine preventable diseases, a general awareness and openness towards vaccination, and adequate access to healthcare, the majority of young adults are not being offered or receiving recommended vaccinations (Bhattacharya, 2013). It is for this reason and short coming that this research seeks to find out the impact of exposure to myth only message frame (mof) format variations on women's intention to accept TTCV in Trans Mara East sub county, Narok County, Kenya.

3. Objective of the study

The major objective of this study was to evaluate the impact of exposure to different message formats variations on women's intention to accept TTCV vaccine with a specific objective to find out the impact of exposure to Myth Only Message Frame (MOF) format variation on women's intention to accept TTCV vaccine.

4. Research Methodology

This study targeted 380 women respondents whose ages were between 15-49 years of Trans Mara East Sub County in Narok County. This specific area is in the larger Narok County which is categorized as one of the high risk areas for tetanus by WHO. The target population was all women in Trans Mara east Sub County and he sampled women in childbearing age of 15 to 49 years - (WRA). A sample size of 382 WRA was picked for the study. This research was experimental and adopted a randomized Control Trial design where participants were randomized to receive 1 of the three messages i.e. FOF MOF and MFMF in a flyer developed using the Ministry of Health's flyer as a control condition. Questionnaires were used to collect data from women participants.

5. Presentation Of Findings, Interpretation And Discussion

Impact of Exposure to Myth Only Message Frame (MOF) Format Variation

This study sought to find out the impact of exposure to Myth Only Message Frame (MOF) format variation on women's intention to accept TTCV in Trans Mara East sub county, Narok county Kenya. On exposure to myths

only about tetanus disease and vaccines, 143 (37.8%) responded to this by indicating that tetanus is a mild disease that is caused by curses, witchcrafts or genetically inherited and cannot be prevented; however, 35.2% strongly disagreed and 38.7% disagreed that tetanus vaccines lead to childless in future.

An item was included in the questionnaires which further asked the respondents give their opinion some statements regarding impact of exposure to Myth Only Message Frame (MOF) Format Variation on women's intention to accept TTCV. The response given was based on the Likert scale through which the respondents rated the extent to which they agreed with the given statements. The items were subjected to descriptive statistics analysis and the results obtained as presented in Table 1.

Table 1: Statements on Pre - exposure to Myth Only Message Frame (MOF) Format Variation

Statements	**1 = Strongly Disagree**	**2 = Disagree**	**3 = Neutral**	**4 = Agree**	**5 = Strongly Agree**
I would be willing to go for tetanus vaccine if it was free	6 (4.2%)	14 (9.8%)	18 (12.6%)	88 (61.5%)	17 (11.9)
I would be willing to go for tetanus vaccine if the government officials asks	2 (1.4%)	28 (19.6%)	9 (6.3%)	93 (65.0%)	11 (7.7%)
I do not want to be vaccinated against tetanus disease	30 (21.0%)	82 (57.3%)	4 (2.8%)	26 (18.2%)	1 (0.7%)
Tetanus vaccine may make me not to bear children in future	28 (19.6%)	76 (53.1%)	25 (17.5%)	12 (8.4%)	1 (1.4%)
In general, I just do not like vaccines.	30 (21.0%)	84 (58.7%)	9 (6.3%)	19 (13.3%)	1 (0.7%)
It is not easy to get the tetanus vaccines.	18 (12.6%)	79 (55.2%)	18 (12.6%)	27 (18.9%)	1 (0.7%)
I do not have time to get the Tetanus vaccine.	15 (10.5%)	42 (29.1%)	26 (18.2%)	55 (38.5%)	5 (3.5%)
Tetanus vaccine is effective in protecting against the tetanus virus.	-	13 (9.11%)	17 (11.9%)	79 (55.2%)	32 (23.8%)
I am concerned about the risk of falling seriously ill from tetanus disease.	4 (2.8%)	18 (12.6%)	21 (14.7%)	85 (59.4%)	15 (10.5%)
Tetanus disease Infections may lead to serious health problems.	15 (10.5%)	15 (10.5%)	10 (7.0%)	77 (53.8%)	26 (18.2%)
I am very worried about getting tetanus disease	14 (9.8%)	46 (32.2%)	23 (16.1%)	58 (40.6%)	2 (1.1%)
I can get tetanus disease through witchcraft and curses	102 (71.3%)	23 (16.1%)	5 (3.5%)	11 (7.7%)	2 (1.4%)

Regarding the statements on pre- exposure to myth only message frame, Table 1 shows that 61.5% agreed that they would get tetanus vaccines if it were free, 65.0% agreed that they are likely to get tetanus vaccines if Government officials asked them, while 57.3% disagreed that they did not want to be vaccinated against tetanus disease. The findings further showed that 53.1% disagreed that Tetanus vaccine may make them not to bear children in future, at the same time 58.7% equally disagreed that they didn't like Tetanus vaccines. The findings also revealed that 55.2% disagreed that it was not easy to get Tetanus vaccine while 38.5% agreed that they did not have time to get the vaccine. It was interesting to note that majority 55.2% agreed that Tetanus vaccine was effective in protecting against the tetanus virus; 59.4% were concerned about the risk of falling seriously ill from tetanus disease. The study was informed that 40.6% were worried about getting Tetanus disease, even though 71.3% strongly disagreed that they can get tetanus disease through witchcraft.

After reading the passage, the respondents were further asked to state how likely in future they may go for tetanus vaccine (TTCV) and 54.2% were convinced, 10.6% strongly convinced while only 2.8% were strongly unconvinced to go for Tetanus vaccines TTCV in future. Even though the respondents were subjected to myths only message frame, the respondents did not digress from what they strongly agreed were facts which disagrees with Bi Zhu et al, (2012) who found out that brief exposure to misinformation through myths can lead to long-term false memory; a scenario shared by Appel and Richter (2007) who also found out that there are large and term persuasive effects of false information and beliefs acquired by reading fictional narratives that are integrated into real-world knowledge. Ventola (2016) also found out that myths about vaccines are plentiful, causing some patients to be fearful about vaccines.

To establish the moderating impact of socio- cultural factors on the relationship between exposure to myths only message frame and women's intention to accept TTCV, the study used Pearson moments correlations test to establish the relationship between the two variables and Table 2 presents the findings.

Table 2: Correlation Matrix between and Socio-cultural factors and TTCV Vaccine acceptance (Exposure to Myths Only)

			Socio-cultural Factors Average	Average for TTCV Vaccine Acceptance
Myths about Tetanus and Tetanus Vaccines	Socio-cultural Factors Average	Pearson Correlation	1	.306**
		Sig. (2 Tailed)	.	.000
		N	137	135
	Average for TTCV Vaccine Acceptance	Pearson Correlation	.306**	1
		Sig. (2 Tailed)	.000	.
		N	135	137

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

Table 2, the moderating impact of socio- cultural factors on the relationship between exposure to myths only and women's intention to accept TTCV had a correlation coefficient of 0.306 and an alpha value of 0.000. This therefore shows that the relationship between the two variables had statistical significance and was not just by chance. This is because the alpha value (0.00) was below 0.05 for it to have statistical significance. Worth noting too is that, the findings of this study agrees with Nyhan et al., (2014) that the effects of intervention vary depending on the respondents pre- existing attitudes. From this study it can be deduced that from the pre –exposure that majority of the participants had positive attitudes towards TTCV and were knowledgeable about

tetanus disease causes thus favorable response to intention to accept TTCV. Corrective information provoked a positive response similar to pre –exposure and fear of the risk of the seriousness of tetanus disease can be argued to have raised some concern thus the need to vaccinate against tetanus disease among the participants thus agreeing with Heleen et al., (2014), that vaccine messages should target broadly and emphasize the vaccine safety. The findings of this study too agrees with Daron (2009) that injection side pains fear of needles, as well as inconvenience and cost play an important role in vaccine decision making.

6. Summary and Conclusion

The main objective of this study was to find out the impact of exposure to Myth Only Message Frame (MOF) format variation on women's intention to accept TTCV in Trans Mara East sub county, Narok county Kenya. On exposure to myths only about tetanus disease and vaccines, it was reported that tetanus is a mild disease that is caused by curses, witchcrafts or genetically inherited and cannot be prevented; however, a third of the respondents strongly disagreed that tetanus vaccines leads to childless in future. The respondents were further convinced to go for Tetanus vaccines TTCV in future. To establish the moderating impact of socio- cultural factors on the relationship between exposures to myths only message frame and women's intention to accept TTCV, the study revealed that the relationship between the two variables had statistical significance and was not just by chance. This is because the alpha value (0.00) was below 0.05 for it to have statistical significance.

This study concludes that myth that tetanus disease cannot be prevented can be successfully debunked by presenting on the same frame the fact that the disease is preventable through vaccines. From the study, it can be concluded that even though the respondents were subjected to myths only message frame, the respondents did not digress from what they strongly agreed were facts even though brief exposure to misinformation through myths can lead to long-term false memory. This study demonstrate that correct message format is a powerful tool that can be used to persuade women to accept tetanus vaccines or any other health program for that matter and that socio-cultural factors may act as a link in the relationship between message format variations and vaccine acceptance. It has demonstrated the potential of MOF Message format variation as an effective tool in TTCV messaging.

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