What do people learn from a health media campaign? A case study in Zomba, Malawi.

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Extended Abstract:

Background: Results of the clinical randomized control trials that took place in Kenya, Uganda and South Africa on circumcision and HIV prevention has not been widely disseminated in Malawi. In Malawi circumcision is primarily conducted as a part of male adolescent initiation rites among male children (typically aged 8 – 13) of particular ethnic groups. Male circumcision has not yet been included as a core component of the HIV prevention strategy in Malawi. However, the Ministry of Health has recently been strategizing on how to incorporate male circumcision as part of their HIV prevention strategy and how to disseminate this information across the country. It is therefore useful to understand how Malawians understand this information and the link between male circumcision and HIV.

Method: The baseline survey of the Circumcision, HIV and Information study was conducted in late 2008 Zomba, among men aged 18 to 40. The baseline study conducted included questions about people's beliefs about HIV, exposure to media, their perceptions about circumcision as well as basic demographics. For those men that were already circumcised it also collected detailed information about their own circumcision experience. As part of the study an experimental design was adopted that involved providing in-depth information about the 3 randomized control trials that show that circumcision reduces the risk of contracting HIV by approximately half. Approximately four months later a ten percent sample of men – stratified by treatment group – was drawn from this larger representative survey of men, this data is referred to as the audit data which includes 125 men (67 from treatment and 56 from control). The audit included questions about recall of the baseline survey; specific recall questions relating to the experimental information component, such as the type of information given; perceptions and beliefs of HIV contraction risk related to male circumcision.

Results: All men from both the treatment and control villages resurveyed as part of the audit recalled being interviewed 4 months earlier. Slightly more than half (53.7%) of the treatment men in the audit reported to having heard about the scientific studies about HIV and circumcision, compared to only 0.07% of the men from control villages. Most (97%) of those men that had ever heard of the study in the treatment group reported that circumcision reduces the risk of contracting HIV. Men in the treatment group were 11 percentage points more likely to believe that circumcision reduces the risk of contracting HIV than men in the control – 68% in treatment compared to 57% of the men in the control villages.

Conclusion: We find that Overall, respondents recalled general facts about the relationship between HIV and circumcision as determined by the randomized control trials. However the specific details of the information about the scientific study were not properly retained by our respondents as reflected in what was retained from the health media campaign

Introduction

In Malawi like in many African countries, there are an abundance of health media campaigns that attempt to reach out to people to convey various messages with the hope that if properly understood, and utilized effectively by being adhered to, people's lives can be improved. Media campaigns are seen as one way health organizations, NGOs, or governments can communicate important public health messages to a widespread target audience. Messages include print, visual, or audio messages. Audio or personally delivered messages are particularly attractive in that they are effective in reaching the illiterate or rural poor. Examples of many popular messages include knowledge or behavioral advice about malaria prevention, child vaccination, HIV/AIDS voluntary counseling and testing among others. While these campaigns are popular, little is understood about the causal or lasting effects of receiving messages. Moreover, simply comparing those who hear messages with those who do not confounds important omitted variables such as education or income which may bias analysis of the effects of campaigns. This paper aims to understand the causal effects of a health media campaign, specifically about male circumcision and HIV. It tries to understand, what is learned, and how it is understood. Importantly, it utilizes an experimental design that randomized the information.

Sample

This paper uses data from a larger study, Circumcision, Information and HIV Prevention study, where a total of (1250) men were interviewed. The study took place in the southern region of Malawi, Traditional Authority Kumtumanji, in Zomba district. The data collection was conducted in 2008. This area was selected because it has a diverse ethnic as well as religious population. It has Christians and Muslims as well as Yao and non-Yao's all of which are key determinants of one's circumcision status in rural areas. During the baseline study, men were asked questions about their basic demographics, including questions about their age, marital status, and literacy level.

The larger study included randomly selecting 70 villages, as defined by political demarcations recognized by the National Statistical Office from the 1998 household census. First, 70 villages were randomly selected into the sample, stratified on the distance of villages to the nearest mosque and church. Within all of these villages a full enumeration of households was conducted. Half of these were classified as treatment and half as control villages. The second stage of sampling was the random selection of men (ages 25 – 40) from within each village, stratified by religion (Christian/Muslim). A maximum of 20 of each religious identity was selected into the sample within a village. In most instances where there were

not 20 men of each religious group all men were selected from the village. The sample was stratified by religion to attempt to create a balance of circumcised and uncircumcised men in the sample.

For the purpose of this paper, we analyze the audit sample of 125 men who were interviewed four months after the baseline wave. Ten villages were selected for the audit sample – 5 treatment and 5 control villages. These villages were all selected as they lie in close proximity of one another on the south-west area of the district. The sample was selected in this manner due to budgetary constraints. All respondents from these 10 villages were sought out for interviews. Of a total of 184 possible respondents – 125 were found.

Data and Methods

During the baseline study, in addition to administering a questionnaire, at the end of the survey, enumerators gave out of money (k30/or approximately 20cents), and offered respondent's the opportunity to purchase condoms. Condoms were sold at k5 per pack of three or two kwacha for each condom. The normal retail price for condoms in Malawi is k30 per pack of three and single condoms are unavailable for purchase. In addition, at the end of the survey, the enumerator gave out a brochure (one page information sheet that listed a variety of HIV prevention methods on it). This was given out to all men in our sample, regardless of treatment status.

During the baseline study – conducted in late 2008 – respondents were asked about basic demographics such as age, marital status, literacy level, religious denomination, ethnicity, and also average income of the men. We use these baseline variables in the analysis for this paper. .

During the audit questionnaire – conducted in early 2009, approximately four months after the baseline – respondents were asked to recall objective survey events. These questions included whether the respondent remembered taking part in a survey four months earlier; if they did recall a survey, respondents were asked further details about things that should have taken place as part of the interview. These included whether or not they received any money as respondent gift and if so, how much they received; if respondents were offered an opportunity to purchase condoms; if they were given an information sheet and if so, whether they read it.

The second set of questions related to asking respondents to recall the subject of the information about male circumcision and HIV that was disseminated to treatment respondent by enumerators. In particular, because information was only disseminated among men living in the treatment villages, we wanted to understand how effective this intervention was in conveying new information about male circumcision

and HIV. In order to measure effectiveness, respondents were asked a number of different questions that fall into the following categories: 1) questions related directly to the baseline study that they participated in four months earlier; 2) questions related to HIV/AIDS but not directly to objectives of the study, and 3) questions that were either not related to the study. Topics directly related to the study materials included HIV prevention, and circumcision. Topics that are indirectly related to the study materials included door to door HIV testing and questions related to St Lukes Hospital. These topics are considered indirectly related as respondents were asked questions about these topics in the baseline questionnaire but were not provided any additional information about these topics. St Lukes is a mission hospital in the area. For unrelated topics questions were asked about Malaria, Bird flu and Headlice. Lastly, respondents were asked about Copelimia which was a deliberate fake topic.

In addition to being asked to recall subject of the information, respondents were also asked a series of questions related to circumcision related information that the information script discussed. For example, respondents were asked if the scientific study information they were told about showed whether circumcision decreases, increases, or has no impact the risk of HIV. Note that while this was asked to both treatments as well as control , this was asked only among those who said they were told about a scientific study. In addition, respondents were asked to recall the specific countries in which the studies in question were conducted. These options were also read out and it included only African countries. Countries include Malawi, Zambia, Nigeria, South Africa, Congo, Kenya, Uganda Ethiopia and Rwanda. the correct countries are South Africa, Kenya and Uganda.

Respondents were also asked directly about their individual beliefs of circumcision and HIV prevention, unrelated to a scientific study. We asked the respondents whether they think circumcision increases, decreases or has no impact in preventing HIV. This question was asked to all men.

Methods

The goal of this paper is to compare those in the treatment and control on survey recall at the time of the audit. We begin by comparing baseline characteristics between men in the treatment and in the control villages to learn whether the treatment and control are any different I terms of basic demographics and if the differences are significantly big to affect comparative result.

Then we continue comparing between treatment and control, on the recall of objective survey events. These are some of the main interview processes that took place at baseline. They include, asking men whether they recall taking part in a survey; asking respondents whether they received any amount; and

the amount they did receive; whether they receive an HIV information brochure (it had HIV prevention measure on it) and whether they read the information on the brochures.

We then compare subject recall of information. This is a comparison on the subject of the information script that respondents claim to have been told. We also compare how respondents recall specific information from the information script. In addition to this we compare individuals' belief of circumcision and HIV prevention. This again the comparison is between treatment and control.

Information Experiment

The intervention used in this experiment involved telling some of the men in the study the results of three randomized control trials that established that circumcision reduces the risk of contracting HIV by approximately 60%. These studies were conducted in three different countries (Kenya, South Africa and Uganda) with very similar research designs. All men that participated in these RCT's were HIV negative, uncircumcised and were willing to be circumcised. They were classified into treatment and control groups. All men were willing to be circumcised but only those in treatment were circumcised. Because the results were so large and convincing, the ethical review committee's recommended the studies to be stopped and for all men in the control group to have the opportunity to become circumcised. This information was given to all men only in the treatment villages because treatment was assigned at the village level .The information sheet was read out to respondents at the end of each the survey the information sheet included the research design of the actual studies, and how they had been implemented; the results of the studies in all the three countries as well as a scientific explanation of the results. These explanations were described in very simple language to make sure that they are clearly understood by a layman. The written descriptions were aided with illustrations to assist with explanations. Respondents were encouraged to ask the enumerators questions if they did not understand. Lastly, it was emphasized that although circumcised men faced a lower risk of contracting HIV this did not imply that they faced no risk and all men were encouraged to still use condoms and other safe sex measures to avoid contracting the virus.

Results

The sample of men used in the analysis is 125 men (67 from treatment and 56 from control). Table 1 presents these statistics. On average the sample is 32 years old, most are married (88 percent). The average number of completed years of schooling is seven years, and most of the men in the sample were literate in Chichewa (83%). Our men in the audit sample comprised of Chewa (5%), Nyanja (50%) , Yao (23%) as well as Lomwe (18%).

We next turn to examining the differences between men in the treatment and control on objective survey events (Table 2). We see that all men from both the treatment and control villages resurveyed as part of the audit recalled being interviewed 4 months earlier. And also all men confirmed being given money as part of the survey. Note, mechanically, there is no difference between the treatment and the control. Most of the respondents during audit reported to have being offered a chance to purchase condoms (92%), with the treatment people reporting higher than control (94% for the former and 89% for the later) but the difference is not statistically significant. Despite the HIV information brochures (paper with ways of preventing contracting HIV) being given to both treatment and control respondents, the treatment group reported higher rate of recalling being given this sheet compared to control (74% for treatment and 54% for control). The difference is statistically significant at five percent level. The difference is because interviews spent more time with respondents in treatment more than they did to respondents in control villages because interviewers had to read out the information treatment script to them. On the other hand respondents in control after interviews were just given HIV information brochure. Its actually very interesting in how reading out of information and spending little bit more time with respondents would affect related survey activities.

Table 3 compares answers to related, unrelated, and fake items across treatment and control men. Across most items, there was no significant difference between treatment and control. We learnt from the tables that, almost all men in our study recalled the related subjects. 99% of respondents during audit recalled that treatment information was about circumcision and the percentage recalled that it was about HIV prevention. There were no significant differences between treatment and control. Under half of our respondents reported to have heard somewhat related subject to the information treatment brochure, 46 % of all men, 48% for treatment and 43 for control villages. The differences were not statistically different. For those who claimed that the was information about St. Luke hospital, 39% for all respondents and for those who claimed that the information was about door-to-door testing. The difference between treatment and control villages for this category two were also not statistically significant.

We however noted significant differences in how unrelated subject was reported between treatment and control villages. Overall recall rate for malaria as subject in the treatment was 53%, 63% for treatment and 42% for control villages, the difference between treatment and control is statistically different at five percent level. If we look at the results of bird flu (unrelated to the survey materials) - 19 percent of the sample reported that they had been told something about bird flu during the baseline interview. If one looks at these results disaggregated by treatment status – we see that 25 percent of the treatment respondents compared to 11 percent of those in control villages report being told about bird flu. This difference could be attributed to the fact that respondents in treatment recalled being told some

information, but they might have forgotten the exact nature of the materials discussed. As such they are perhaps more inclined to say that they had been told about it.

This pattern – where treated participants are more likely to report having heard about the various topics during the survey is consistent across the different types of information – fake, unrelated, somewhat related, and related. The high rates of reported recall of hearing about Malaria during the study for both the treatment and control men might be attributable to the fact that malaria is a common disease that is discussed daily. This is likely to increase the chance of the respondents reporting that they were told about it during the study if he has forgotten the actual subject material.

We next turn to examining specific information about male circumcision in Table 4. Slightly more than half (53.7%) of the treatment men in the audit reported to having heard about the scientific studies, compared to only 7% of the men from control villages. These questions were asked only to those who said they were told about scientific study related to male circumcision and HIV prevention. This meant mostly to respondents from treatment villages and few from control who claimed to have heard about the scientific study.

More men from the treatment group reported to believe that circumcision reduces the risk of contracting HIV than men in the control – 68% in treatment compared to 59% in the control villages. There are no significant differences between the treatment and control, however the magnitude of the difference is in the right direction.

Conclusion

This paper reports on a health media campaign about male circumcision and HIV and has examined what respondents recalled after four months, including details of circumcision related information, as well as unrelated material. Overall, respondents recalled general facts about the relationship between HIV and circumcision as determined by the randomized control trials such as the fact that circumcised men face a lower risk of contracting HIV. However, the recall about specific details such as the countries in which the studies were conducted was not retained very well by respondents. What is encouraging about the findings in this paper is that using non-health professionals with simple text and illustrations can an effective way to inform individuals about such an important issue. Given the significant shortage of health professionals in Malawi and most Sub-Saharan African countries this is an important consideration to be taken into account in designing information campaigns.