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Mass media as a determinant of community hygiene practices: a case study of Garba Tula Sub-county in Isiolo County

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ABSTRACT

Introduction: Hygiene practices are essential for maintaining public health and preventing the spread of infectious diseases. Mass media has the potential to influence individuals' hygiene behaviors and attitudes, by reaching a wide and diverse audience simultaneously, mass media can effectively disseminate targeted hygiene-related messages, leading to improved knowledge. Therefore, the study aimed to assess the contribution of mass media to the adoption of good hygiene practices in Garba Tula sub-county. **Methodology:** The study employed a mixed method approach where the researcher incorporated both qualitative and quantitative approaches, with a sample size of 191, which included the household heads, public health officers, area chief, and religious leaders. The study was conducted between December 2022 and February 2023. The data was analyzed by use of SPSS (2022) and ANOVA. **Results:** The study identified media representation, lack of awareness, poverty, lack of water, and culture as some of the factors associated with poor hygiene practices in Garba Tula Sub County. The study found there was a moderate relationship ($P < 0.001$) between hygiene practices and the media. It was noted that a significant percentage of households depended on the media for hygiene messages. **Conclusion:** The study concluded that the physical parameters and opinion leaders significantly influenced the adoption of good hygiene practices in the Gabra-Tula sub-county. The study recommends that mass media be used exhaustively to aid in behavior change and creating awareness.

Introduction

Community hygiene pertains to the hygiene practices that prevent or minimize the spread of diseases in the community. Some of the hygiene practices include hand washing with soap and water after defecating and proper disposal of solid waste and excreta. The burden of diseases that is attributable to poor hygiene practices is largely borne by the poorer members of the society (Mativo et al., 2020).

Poor hygiene practices are linked to the transmission of diarrheal diseases such as cholera and dysentery. Diarrhea remains a major killer and it is the leading cause of malnutrition in children under the age of five. Community hygiene is very important in keeping everyone healthy and especially the most vulnerable. Some of the factors linked to poor hygiene practices in developing countries include poverty level, cultural beliefs

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and lack of information (Hart et al., 2020).

Lack of awareness makes communities continue practicing poor hygiene and believing in unhealthy cultural beliefs that endanger their health. Interventions that use interpersonal communication improve targeted behavior and create awareness but are expensive at scale. Mass media is an alternative that could reach more people at a lower cost (Islam et al., 2021).

In Isiolo County 72% of the population is poor, which shows the number of informed persons is relatively low or the channels or drivers used to disseminate information is not properly utilized. The County residents have used local stations to complain about the rise of insecurity in the area and the leaders have acted. However Garba Tula being one of the far distance areas, has been neglected in terms of information and public participation (Boru, 2015). The media plays a crucial role in creating awareness and educating society on the importance of good hygiene. An informed society can make good decisions that will lead and guide its daily activities. Despite that, there is limited research that has been done in Garba Tula to exploit various factors that determine community hygiene. It is against this background that this study aims to assess the contribution of mass media to adoption of good hygiene practices in Garba Tula Sub-County in Isiolo County.

Methodology

This study took place in Garba Tula Sub-county. It is home to 99,730 people and 18, 661 households (Census, 2019). The climate in the area is hot and dry, and it borders Isiolo zone to the West, Merti to the North, Garissa County to the East and Nyambene to the South. The residents' main source of income is farming and mostly pastoral farming. This study employed a mixed method approach where the researcher incorporated both qualitative and quantitative approaches. The study targeted household heads, public health officers, religious leaders and area chief. The sample size of 191 was determined using the sample size calculation designed by Fisher et al. (1998).

Results

Hygiene practices prevalent in Garba Tula Sub-County.

Regarding the hygiene practices prevalent in the area of study, majority of the respondents recorded as 58 % (n= 78) washed their hands with soap after latrine use. 13% (n=18) used the latrine properly and 7 % (n=10) disposed fecal matter properly. This is summarized in Table 1. In respect to the data obtained, handwashing with water and soap after defecating was high due to regular campaigns on handwashing during COVID-19 outbreak. It helped in the improvement of hand hygiene. In a study done in Kenya and Tanzania (Kiptinness & Okoye, 2021) also found that more people relied on the media to get hygiene messages during and after COVID compared to before the pandemic. This explains why the percentage of the respondents who washed their hands with water and soap was higher. Also, mass media messages focused on the importance of hand washing with water and soap and there was little or no information on other hygiene practices. This informs why other hygiene practices were poor. The study also noted that only 13% of the respondents used the latrines properly and only 7% practiced proper fecal disposal. According to Kenya certification guidelines, each household in Kenya should have its own latrine and villages that are open defecation free areas should have close to 100% latrine coverage (Ministry Health, 2020). This was contrary to what the study observed.

Table 2 depicts that the majority recorded as 40% (n=54) defecated in the open, 26% (n=36) used a family latrine, 19% (n=26) used community latrine while 14% (n=19) used a neighbor's latrine. According to the interviews conducted those who said they defecated in the open explained that:

"The forest is still big and available so we continue to use it to help ourselves until the time it is cleared."

"The neighbor's latrine is far so when we cannot reach there we opt to use the bushes especially at night."

"We have only one latrine and it commonly used by

Hygiene practices	Frequency	Percent
Hand washing with soap after latrine use	78	58
Proper latrine use	18	13
Proper fecal disposal	10	7
Others	30	22
Total	136	100.0

Table 1: Hygiene practices prevalent in Garba Tula Sub-County

Latrine ownership	Frequency	Percent
Family latrine	36	26
Neighbor's latrine	19	14
Community latrine	26	19
In the open	54	40
Others	1	1
Total	136	100.0

Table 2: Latrine ownership in Garba Tula Sub-county

the 'mzee' (head of the home) so for the rest of us we use the bushes."

"During the dry season we move to different places to find pasture for our livestock, therefore it becomes difficult to build latrines everywhere we go. It is easier to use the bushes since we will be in that place for a short period of time." These findings explain why open defecation is high in the area.

Information sources accessible to the residents of Garba-Tula.

Regarding information sources accessible to the residents of Garba-Tula Sub-county, 68% (n=92) of the households had access to radio, 15% (n=20) accessed information through religious leaders, 9% (n=12) accessed information through television, 4% (n=6) accessed information through the public health officers while 1% (n=2) accessed information through the chief's Barraza. The area had no electricity.

Despite a plan by the Kenyan government to ensure electricity is accessible to all households in the country, there are challenges that hinder the plan. High cost of connection and high cost of supplying electricity to rural and per-urban households are some of them (KNES, 2018). The study area being in the rural areas explains why there was no electricity connectivity. Also, it explains why the majority of the respondents had access to radio compared to television. They said the radio was easy to access because it was cheaper and it did not require electricity. One could use batteries. Also, radio was accessible through mobile phones. For television, they had to install solar panels, which most of the respondents did not have. One of the respondents said:

"We use solar to connect the television because there is no electricity, however during the rainy or cold seasons we do not watch television because the energy taped is not enough."

The 15% respondents who said religious leaders were more accessible, agreed at least every week when they gathered for worship a religious leader had a hygiene message for them. This is summarized in Table 3.

In addition, the researcher wanted to find out how often hygiene messages were passed through different media sources. 57% of the respondents received hygiene messages on a weekly basis while 35% received the messages daily. 6% of the respondents have never received any hygiene messages from the different media sources. 2% did not respond to the question. Through the interviews the respondents said,

"Every week when we gather for worship our religious leaders always tell us the importance of good hygiene practices".

Accessible information sources	Frequency	Percent
Television	12	9
Radio	92	68
Chief's Barraza's	2	1
Public health Officers	6	4
Religious leaders	20	15
None	4	3
Total	136	100.0

Table 3: Mass media sources accessible to the population in Garba-Tula Sub-county

This explains why the weekly frequency of receiving hygiene messages is higher despite the highest frequency of accessing news sources being the radio. The respondents confirmed that,

“Yes I access my radio daily, however sometimes I don’t get to hear any hygiene message through it. But on Sunday am sure to learn one or two things about hygiene.”

The 6% who confirmed to have never received any hygiene messages from various sources and the 2% that did not respond to the question may be part of the population that lack awareness and go on to practice their old hygiene practices like open defecation.

Regression Analysis

In statistical modeling, regression analysis is a statistical process for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables when the focus is on the relationship between a dependent variable and one or more independent variables or (‘predictor’).

According to table 5 the value of R was 0.045 that there was moderate relationship between the dependent and independent variables. That is a relationship between the hygiene practices and

Frequency of Hygiene Messages	Frequency	Percent
Daily	47	35
Weekly	78	57
Never	8	6
Others	3	2
Total	136	100.0

Table 4: Frequency of hygiene messages from the media to the respondents

mass media in Garba Tulla sub county.

According to the ANOVA table 6 where level of significance was 0.05 the overall regression model was significant $F(1,133) = 7.379$, $P < 0.001$ and $R^2 = 45\%$ thus there was moderate relationship among the variables.

According to table 7 the test was significant since the p values < 0.01 for hygiene and media which is less than the table value 0.05.

$$Y = 0.3X + 1.3$$

Discussion

Hygiene practice prevalent in the area

Under this, the findings showed that 40% of the respondents defecated in the bushes. Through an interview one mzee said that they defecate in the bushes because, *“bado msitu ni mkubwa hamna haja ya choo.”* (We still have vast bushes and we don’t need latrines.) The lack of family latrines also led to the increase of defecating in the bushes. 19% used a community latrine. The community latrine included a latrine built in a church or school compound and the residents used it. These latrines were a bit far so the residents had an opinion of the bushes when they couldn’t reach them. The distance was also a factor, especially at night.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.229 ^a	.053	.045	.35767

a. Predictors: (Constant), Media

Table 5: Model Summary

Model	Sum of Squares	df	Mean Square	F	Sig.
1	.944	1	.944	7.379	.007 ^b
	Residual	133	.128		
	Total	134			

Table 6: ANOVA results of regression analysis

a. Dependent Variable: Hygiene

b. Predictors: (Constant), Media

Model		Unstandardized Coefficients	Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	
1	(Constant)	1.379	.193		7.138
	Media	.305	.112	.229	2.716

Table 7: Coefficient of determinants

a. Dependent Variable: Hygiene

Information sources accessible to the population in Gabra-Tula

The results showed that radio was the most preferred mode of getting information and 68% of the respondents owned one. Religious leaders led in promoting good hygiene practices. 95% of the respondents confirmed to have heard a hygiene message from a religious leader. However, 80% preferred to get the information from the radio and 68% owned one. Public health officers championed the campaign on good hygiene practices as revealed in the study. 61% of the respondents agreed on getting or seeing public health officers educate the residents on good hygiene practices. The area chief was also involved in promoting good hygiene messages as confirmed by 53% of the respondents.

Conclusion

The study concluded that media representation, lack of awareness, poverty, lack of water, culture and low level of education were some of the factors associated with the poor hygiene practices in Garba Tula Sub County. The respondents agreed on owning a media device and receiving hygiene messages from different media sources. However, 40% of the respondents still defecated in the open and 46% disposed sanitary towels poorly despite 92% agreeing on receiving different hygiene messages. 96%

also confirmed receiving the hygiene messages weekly. Therefore, the study has noted that the major problem was not the accessibility of media sources and information but on how the message was reported and the prominence given to the message. For instance, the respondents confirmed receiving more handwashing messages during the Covid-19 pandemic and more message on the importance of boiling water before drinking during Cholera outbreaks. These findings are in line with a study done by (Njeri, 2018) on media representation. The way media represents a story determines the impact it will make on the target audience. Also, in the study it was noted that hygiene stories were given prominence when there was a crisis. For instance, through interviews respondents said more stories were done when diarrheal cases were high and the focus was on the number affected and not on the root causes and prevention.

Ethical Approval

Ethical approval was sought and granted by the Meru University of Science and Technology Institutional Research Ethics Review Committee (MIRERC).

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