

Impact of Cultural Factors on the Management of Typhoid Fever in Bungoma County, Kenya

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Abstract

Health for all by the year 2000 was an objective by the World Health Assembly in 1979 following the International Conference on Primary Health Care in 1978. Follow-ups to this declaration indicated that, this objective was not realised because of the strategy used, which mainly focused on the delivery of the health services and on the role of the health sector in improving health outcomes. World Health Organization (WHO) and other member states have acknowledged that the social factors responsible for persisting inequalities in health in society are poverty, limited national resources, lack of education, population increase, poor sanitation and lack of awareness of the importance of health. There is also abundant evidence that major determinants of health lie outside the health sector and consequently, health cannot be achieved in isolation from other sectors. Despite the fact that most governments are making an effort to achieve health for all, the prevalence of typhoid fever is still very high. The objective of the study was to investigate the cultural factors that impact on the management of typhoid fever in Bungoma County. Descriptive survey research design was used. The target population was 876,491, 42 health staff and 16 village elders. Multi-stage, stratified, snowball, purposive and simple random sampling techniques were used to select the study samples. Data collection instruments were interview schedules, observations, and focus group discussions. Data was analysed using the descriptive statistics. Culture was found to impact on the management of the fever. The study recommended that the health sector should work with other sectors in the management of typhoid fever since the determinants of health and hence typhoid lie outside the health sector.

Key words: Cultural factors, Drug resistance, Management of typhoid fever, typhoid fever,

Abbreviations

FGD: Focus Group Discussion

MDR: Multi-drug resistance

NACODE: Nasike Community Development Organization

NTRH: National Teaching and Referral Hospital

TF: Typhoid fever

Introduction

The World Health Organization (WHO, 2006) defines health as a state of complete physical, mental and social wellbeing, and not merely the absence of disease or infirmity. WHO further states that health is a fundamental human right and that the attainment of the highest possible level of health is a most important world-wide social goal whose realization requires the action of many other social and economic sectors in addition to the health sector. According to the World Bank (2000), there are existing gross inequalities in the health status of the people particularly between developed and developing countries as well as within countries. This is politically, socially and economically unacceptable and is, therefore, of common concern to all countries that there should be full attainment of health for all and a reduction in the gap between the health status of the developing and developed countries. This is because, the promotion and protection of the health of the people is essential to sustained economic and social development and contributes to a better quality of life and to world peace.

Good health is therefore basic to human welfare and a fundamental objective of social and economic development, yet most of Africa's fifty four countries lag far behind other developing countries in the vital task of improving health. According to World Bank (2000), Infant mortality in Africa is 55% more than other worlds low income developing nations, life expectancy is 11 years less while maternal mortality is at 700 women per 100,000 live births. High rates of disease and premature mortality in Sub-Saharan Africa are costing the continent dearly. Poor health, especially due to the communicable diseases causes' pain .and suffering, reduces human energies, and makes millions of Africans less able to cope with life, let alone enjoy it. The cultural, economic and social factors determine how people care for their health, what they do when they are ill and how they use their health services as reported by AMREF (2001). WHO (1988) defines culture as a pattern or peoples way of life. This includes peoples' normal forms of behavior, beliefs, values and the use of resources in a community. Differences in culture can exist if people pursue different goals, use different methods or natural or human resources to achieve the goals. Conversely, cultural similarities can exist if people pursue similar goals, use similar methods or natural or human resources to achieve the goal. According to Mbiti (1969), cultures differ in the varying emphasis rather than quality. Each culture has developed and cultivated a particular set of natural and human environment that is adaptive, valuable and meaningful for its members. He further notes that beliefs focus on how outcomes are achieved and meanings and values are attached to the outcomes and resources and processes used to achieve the positive outcomes or to avoid negative outcomes. For instance, the Bukusu people who mainly inhabit Bungoma County attach a lot of meaning and greatly value the circumcision ceremony.

Otegbayo (2005), states that typhoid fever is a disease transmitted by the faecal-oral route and it's a public health problem especially in the developing countries. Kariuki (2008) states that as humans are the only source of infection, and transmission of *S. Typhi* is by the faecal-oral route through contaminated water or food. According to Kariuki (2008), it continues to be a public health problem in many developing countries in sub-Saharan Africa. School-age

children, especially those from resource-poor settings with inadequate water and sanitation systems, are disproportionately affected. It is estimated that a total of 400,000 cases occur annually in Africa, an incidence of 50 per 100,000 persons per year. Lack of effective diagnosis often leads to inappropriate treatment and management of these infections. Additionally, the emergence and spread of *S. Typhi* strains having multiple resistance to nearly all commonly available drugs in most developing countries has been a major challenge to health care systems, reducing the effective treatment options for the disease, increasing treatment costs and increasing the risk of complications and death. Although not much data from sub-Saharan Africa has been published, it seems clear that typhoid is common in Nigeria, Mali, Ethiopia and Kenya (WHO, 2005).

There have been efforts by various stakeholders involved in health such as the Ministry of Health, WHO among others, to ensure that *Health for All* is achieved. *Health for all* is the achievement of a healthy and prosperous nation that ensures the provision of affordable, accessible, equitable and quality health for all citizens and for future generations while upholding the human rights, traditional and Christian values. But despite the efforts to improve health and improving health systems, typhoid fever still remains the leading cause of morbidity in Bungoma County. For instance records from the Western Provincial medical office in the year 2006 indicate that out of a total of 15,715 typhoid patients in Western region, 7,512 patients were from Bungoma County (MOH, 2006). This study, therefore, investigated cultural factors that impact on the management of typhoid fever in Bungoma County.

Methodology

This study used the descriptive research design which was used to describe people's responses to questions about a phenomenon or situation with the aim of understanding the respondent's perception from which truism is constructed. The study was also based on qualitative research that includes designs, techniques and measures that do not produce discrete numerical data. The target population was 876,491 people found in Bungoma County, Kenya Bureau of Statistics (1999). The proportion in the target population estimated to have characteristics being measured was 80% which is the population living in the rural areas of Bungoma County. This included children, men and women and 42 general health facilities in the District consisting of 6 hospitals, 14 health centres and 22 dispensaries.

Multi-stage sampling was used to assist in arriving at the household level which was the sample unit to be used to collect data. The households were then randomly selected. The households selected at this level were the households without the children under five years as snowball sampling was used to sample the households with children less than five years where an observation guide was used to collect data. Stratified random sampling was also used in selecting respondents for the FGDs. Purposeful sampling technique was used in selecting the key informants in the villages and at the health facilities.

The data collected was both qualitative and quantitative. Qualitative data were collected in the year 2009 through the observation guides, interview schedules and focus group discussions, while the quantitative data were collected through the use of interviewer administered questionnaires that were administered to 240 randomly selected respondents' 30 households from each Division. Eight research assistants, one from each of the eight

divisions were trained on how to administer the oral interviews, how to use the observation guides and how to conduct the focus group discussions.

Two sets of data analyses were performed. SPSS for windows version 11.5-computer program was used for coding, entering, and cleaning of quantitative data obtained from questionnaire respondents. Frequency distributions and other descriptive statistics of responses to various questionnaire items were then obtained and their meanings derived. Qualitative data obtained through key informant interviews, observations and focus group discussions were transcribed, scrutinized for emerging themes and then analyzed for content using a meaning centered approach. Both quantitative and qualitative data analysis were used with both the descriptive statistics and percentages and presented by use of the tables and charts. To ensure validity and reliability of the findings, the study used several tools; a questionnaire and a key informant interviews, observation guides, and focus group discussions tool. These tools were triangulated to validate information sourced from each of them. To establish the reliability of the questionnaire items, the test-retest method was used.

Results and discussion

Perceptions about typhoid fever were assessed using true/false statements. These statements were based on common perceptions and concerns about typhoid fever. Table 1 below shows the statements and the corresponding percentage of responses elicited from the respondents.

Table 1: Frequencies of responses to common perceptions about typhoid fever

	N=220
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PERCEPTIONS	TRUE(Percentage)	FALSE(Percentage)
Lack of hand washing practices contributes to typhoid fever infections	15	85
Lack of pit latrines in each home contributes to typhoid fever infections	11	89
Lack of enough and reliable water sources contributes to typhoid fever infections	11	89
Lack of water storage containers contributes to typhoid fever infections	96.6	73
Poor sanitation practices contributes to typhoid fever infections	85.4	14.6
Poor sanitation practices by public food vendors contributes to typhoid fever infections	86.5	13.5

From table 1 above, 187 (85%) of the respondents said that it is not true that lack of hand washing practices in the community is the major cause of the spread of typhoid fever while 33 (15%) of the respondents agree that lack of hand washing practices in the community is a major cause of typhoid fever in the community. This shows that there is a low level of knowledge on the causes of typhoid fever among the community. This finding agrees with the findings of Kapur & Kumar (2012) in their study on sanitation and hygiene behaviours that the practice of hand washing remained more as an exception than a norm owing to the many socio-economic barriers that existed among the communities in India.

196 (89%) of the respondents say that it is not true that lack of pit latrines in the community is the major cause of the spread of typhoid fever while 24(11%) of the respondents agree that lack of pit latrines in most of the households in the community is one of the causes of typhoid fever in the community. This also shows that there is a low level of knowledge on the causes of typhoid fever among the community. This also agrees with the findings of Kapur and Kumar (2012) on the low level of knowledge on sanitation and hygiene.

Table 1 above also indicates that 196 (89%) of the respondents say that it is not true that lack of enough and reliable water sources in the community is a cause of the spread of typhoid fever while 24 (11%) of the respondents agree that lack of enough and reliable water sources in the community is a major cause of typhoid fever in the community. This shows lack of proper knowledge on the causes of typhoid fever among the community.

Out of the 220 respondents from Bungoma County interviewed, 160 (73%) respondents say that it is not true that lack of water storage containers among households in the community is a cause of the spread of typhoid fever while 60 (27%) respondents agree that lack of water storage containers among households in the community is a cause of typhoid fever in the community.

Table 1 above shows that 105 (48%) respondents agree that poor sanitation practices among households in the community is a cause of the spread of typhoid fever while 115(52%) respondents do not believe that poor sanitation practices among households in the community is a cause of typhoid fever in the community. This shows the high level of misconceptions on the causes of typhoid fever among the community.

Out of the 220 respondents, 136 (62%) of the respondents agreeing that poor sanitation practices by the public food vendors is a cause of typhoid fever in the community while 84 (38%) of the respondents say that poor sanitation practices among public food vendors is a cause of typhoid fever in the community. This they said was because most of them eat from their house yet they still suffer from the typhoid fever.

Generally, table 1 above indicates that poor sanitation practices, lack of water and water storage containers and poor sanitation practices by public vendors is a major obstacle in typhoid management in Bungoma County. These findings agree with the findings by Kapur & Kumar (2012) in their study on hygiene and sanitation practices in India.

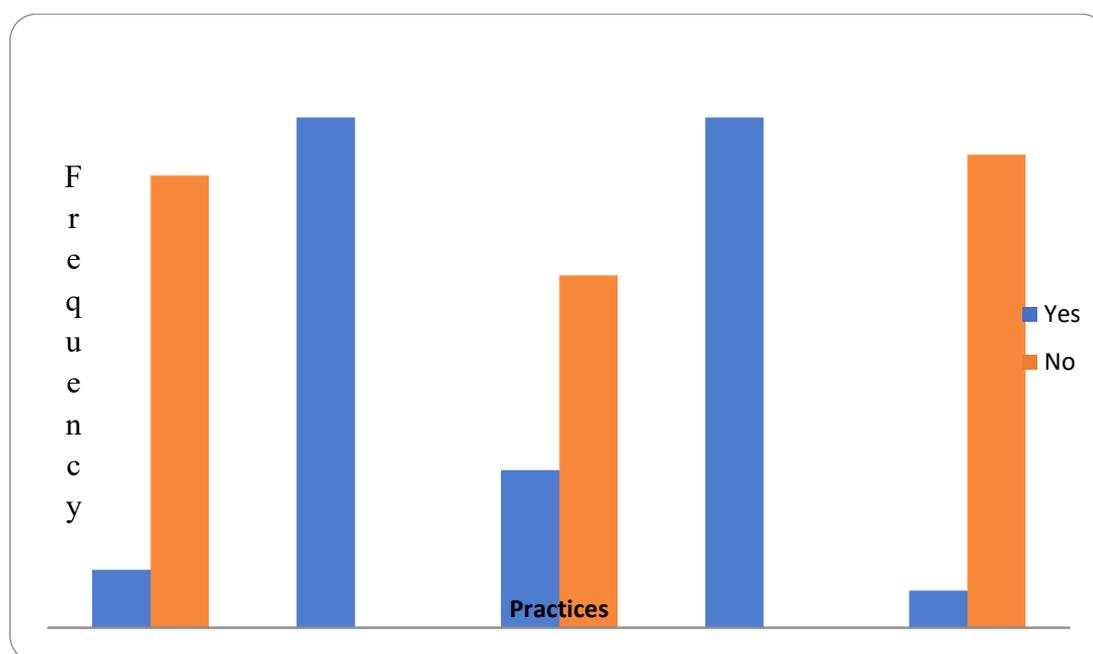


Figure 1 Accepted beliefs and practices

According to figure 1 above, 20 of the respondents agreed that washing hands after visiting the toilet was an acceptable practice while 200 of the respondents did not agree with this practice and they attributed this to lack of resources such as soap and water, 8 of the respondents said that covering water was an accepted practice while 212 of the respondents did not seem to value this practice, 70 respondents said that each home is supposed to have a pit latrine while 150 of the respondents said that it was not possible for each home to have a pit latrine first because it was expensive to construct one and that they were also a menace in the homes, 213 of the respondents said that all people are supposed to use the latrine while 7 of the respondents said that not all people are supposed to use the latrines for instance the children cannot use the pit latrines, and 18 of the respondents said that cleaning of the pit latrine is an accepted belief in the

community while 202 respondents said that it was difficult to clean the pit latrines as most of them have latrine that are not cemented and even covered with a roof and this can really be a big menace during the rainy seasons and yet they are not easy to clean.

These findings in figure 1 agrees with the findings of Kapur & Kumar (2012) in his study in India that due to the socio-economic barriers, it was not possible for them to use soap always when washing hands after the visit to the latrines and due to poverty, they can not afford to cover their drinking and also have a pit latrine in every home. On the other hand, it contradicts the findings of Kapur and Kumar (2012) which says that pit latrine use is high by men and women and not children while the study in figure 1 indicates that pit latrine is a practice to be adhered by all the men, women and children. In Kapur & Kumar (2012), study, the wome are the highest users of the pit latrine during the day because of privacy and dignity.

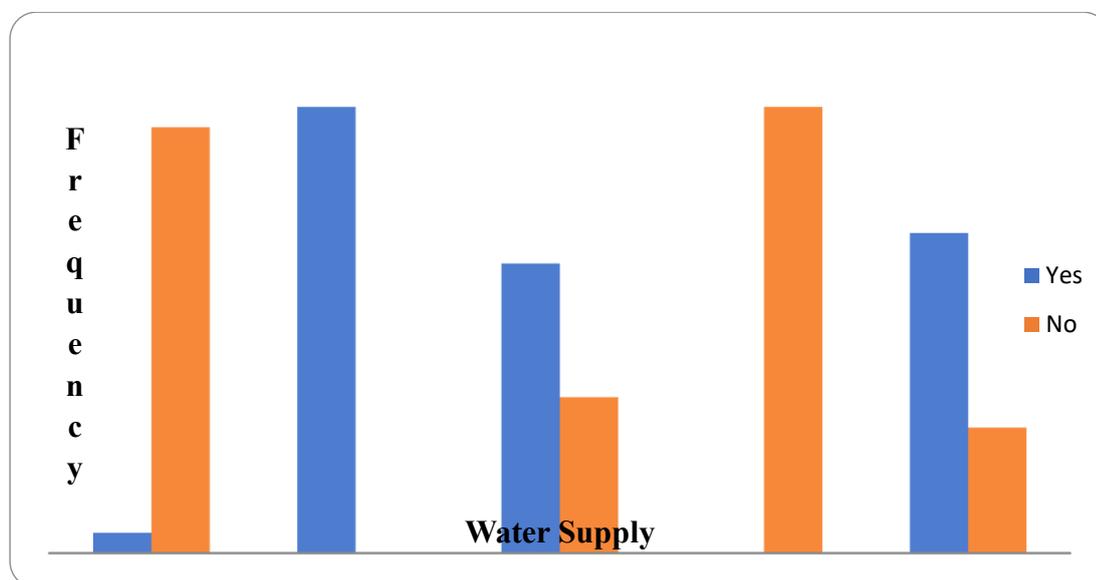


Figure 2: Hygiene issues & water supply

From figure 2 above, most of the respondents do not have access to water storage containers. This is mainly attributed to the people’s socio-economic levels and status. Since the study was conducted in the rural areas of Bungoma County, most of the households do not have formal sources of income and the poverty levels are high. The water used and or consumed by the households in the rural areas of Bungoma County is not treated hence this increases the infection levels from water consumption. This in turn hampers the management of typhoid fever through prevention.

It emerges that the water sources available are few and usually located very far; hence the water sources are unreliable especially during the dry season. This is due to the ever increasing pollution which strains the water. From observations made in the study area, only a few households had hand dug wells which were not protected.

Table 2 above indicates that there is the influence of the cultural perception about the causation, complications and severity of typhoid fever which influences the determinants of treatment and preventive pathways. This was also observed by Wamai (2009) when studying

the health landscape of Kenya where he found out that individual and communities form from past interactions with the health services sector and may influence their decision to seek healthcare in the future. If the population has a favorable view of health services, it follows that the utilization of health services will improve as more people seek care. It was also found out that some people still visit the traditional healers; this is a fact that cannot be ignored since the use of traditional medicine is a reality in the African societies and in our country Kenya. This is true as indicated by a study by Kareru et al (2007) that individuals in many communities also continued to seek traditional health services over or in addition to conventional medicine.

Conclusion

Cultural perceptions of the causes of illnesses play an important role in the amount of responsibility one is willing to take for his or her behavior. Prevention of diseases does take traditional and cultural beliefs and customs into account. This means that cultural factors should be considered in efforts of management of the typhoid fever as cultural factors do impact greatly on the management of the typhoid fever which still remains high in Bungoma County despite the many efforts by various health stakeholders to manage the fever. Local beliefs and misconceptions were more frequently expressed by older people. With increase in education, this problem could be overcome given that health messages are developed in a way that they can be trusted by the community. Women are typically the major care givers in the family but were often very poorly educated. Men are in most cases the household heads and decide on how the family resources are spent. Therefore, programmes need to target women and men alike. It is important to note, that the probability of having a better understanding of typhoid transmission and control was only significantly increased when the respondents education level went beyond the primary school level. This indicates limited contributions of primary education, which is the major level of education found in the community. Schools are an important entry point for basic health education and in a country with over seven million primary school children they present a great opportunity to improve health in the communities

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