THE PERSISTENCE OF OPEN DEFECATION IN FISHING COMMUNITIES OF LAKE VICTORIA; A REFLECTION ON INCONSISTENT USE OF TOILETS IN UKEREWE ISLAND, TANZANIA

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Abstract

Proper disposal of human excreta is worldwide acknowledged as a commendable practice for a decent society. To fishing communities along shores of Lake Victoria it is a different story whereas indiscriminate dropping of human feces is prevalent. This paper narrates the myth behind persistent open defecation in Ukerewe Island in Lake Victoria, Tanzania. Three villages were involved in this study and findings indicate that, only a small proportion of households in surveyed villages (Namasabo, Kaunda and Ukara) have temporal pit toilets (29%, 15% and 21%) while only 1%, 2 % and 4 % have permanent pit toilets respectively. About 28% of the households have no toilet at all and of these 56% easy themselves in neighbor's toilets while the remaining 44% declared to undertake open defecation either in farms/shrubs vicinity to lake shore or inside the lakes water. It was evident that, people in the study area perceives open defecation as of low threat to their well-being, while others who easy themselves in lakes water considers open defecation as a way of enriching the lakes aquatic environment for optimum fish

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growth. Finally, this study recommends collaboration between Government and communities to embark on sensitization and promotions in consistent use of toilets as way of abolishing such shameful and unacceptable practice.

Key words: Toilet use, Lake Victoria, Ukerewe Island, Fishing communities, Open defecation, sanitation, water contamination.

1.0 Introduction

Inadequate sanitation and poor hygiene in rural areas are considered the major public health problem in developing countries. It is a major cause of death, disease and loss of dignity in most of the world's poorer countries (WHO/UNICEF, 2000). Over 1.1 billion people are estimated to lack access to clean water and more than 2.6 billion people do not have access to basic sanitation (IFRC, 2012; WHO/UNICEF, 2000). More than 2 million people, the majority children under 5, die every year due to a lack of improved water sources and basic sanitation. According to WHO/ UNICEF (2000) the proportional of people with access to excreta disposal facilities increased from 55% in 1990 to 60% in 2000. At the world summit on sustainable development in 2000, the world community committed itself to halve by 2012 the proportion of people without access to safe sanitation (WHO/UNICEF, 2000). In fostering proper sanitation, several nations have embarked on health initiatives including water and hygiene promotions especially in rural areas.

Tanzania like any other developing countries is not left behind in a bid to improve sanitation to its people. The lack and or improper use of toilets is considered the most serious public health problem in Tanzania's rural areas as it accounts for source of waterborne and communicable diseases (URT, 2010). The vast majority of people in Tanzania lack decent toilets leading to an alarming increase in the number of people answering the call of nature in the open (Sylvester, 2011). As a result the community is exposed to infection by water related diseases such as diarrhea, bilharzias and intestinal worms. Through the Ministry of Health and Social Welfare, amongst other priorities the focus is on improving rural sanitation which includes proper use of quality toilets which can reduce cases of diarrhea and outbreak of cholera. Diarrhea is considered one of the leading causes of child mortality in Tanzania, by 36 per cent (URT, 2010). Data from Ministry of Health and Social Welfare indicates that, diarrhea claim about 30 percent of neonatal

deaths in Tanzania and are responsible for 12 per cent of illness in children of ages 0-15 years (URT, 2010).

In areas where open defecation is rampant, the spread of disease and infection through the bacteriological contamination of water sources and the transmission of pathogens through the fecal-oral route are common (TaWaSa, 2011). Areas of Kibondo, Ngara, Shinyanga and Kasulu districts are considered to have the least decent toilets in the country (TaWaSa, 2011). The situation experienced in these Districts is not much contrary to what is practiced by fishing communities inhabited in most of Islands under the administrative structure of Ukerewe District.

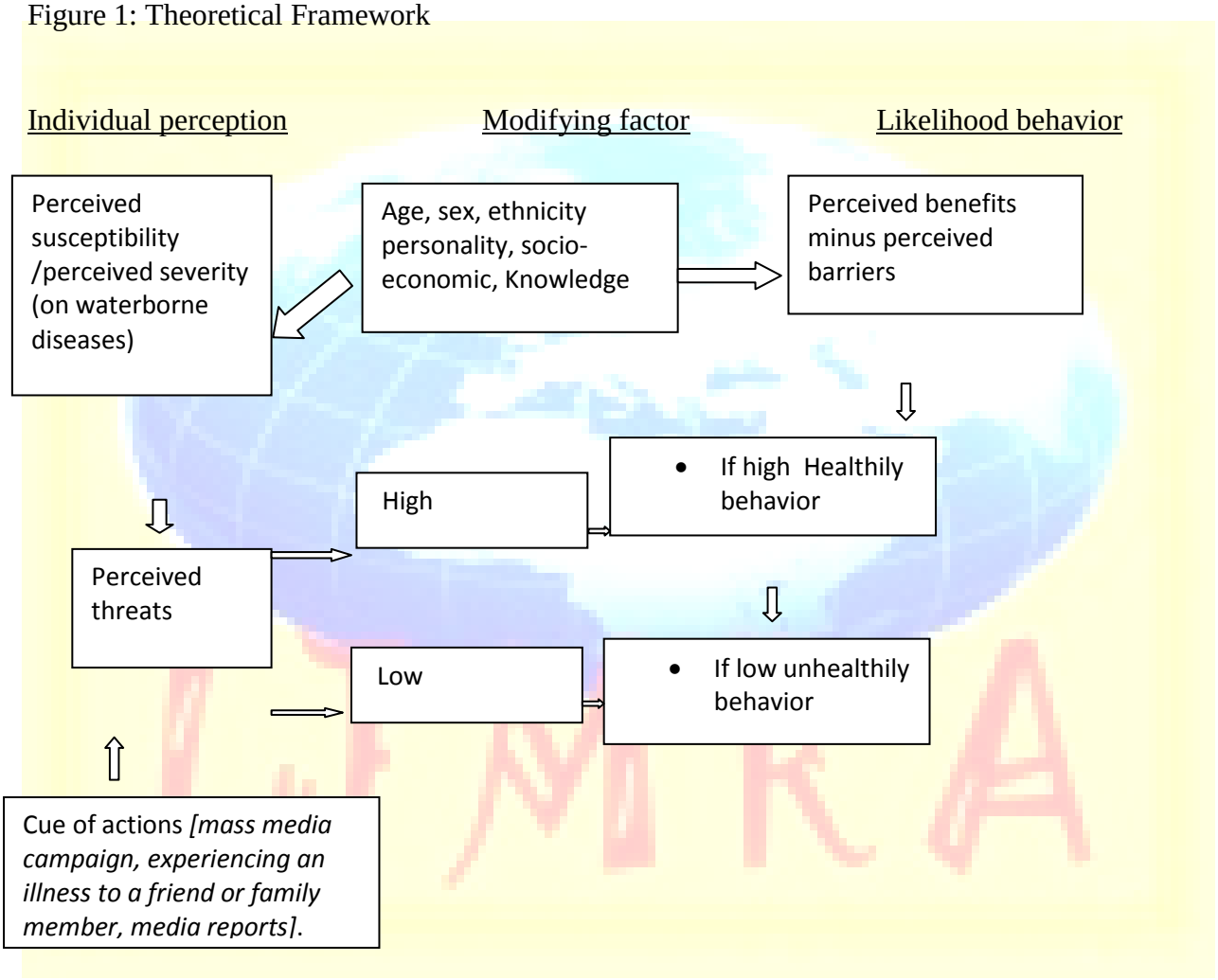
In Ukerewe District, the Local Government Authority strives in a campaign of every household with a usable toilet which aims at environmental sanitation and public health. In collaboration with other development actors; amongst other issues addressed, awareness on environmental sanitation has been translated into an agenda of one toilet to each household and the use of toilets for every call (short and long). There are different types of pit toilet in Tanzania as recognized by the MOH; these include the Traditional pit toilet, improved pit toilet, Ventilated pit toilet, Pour flash pit toilet, Mount toilet (URT, 2010). The construction of toilets fall along the Ministry of health toilet construction guide issued in 2009 which specifies that a toilet of acceptable standards should have an impervious floor, wall height at least 1.8 meters, a roof and door. Trailing on MOH's agenda, the Local Government Authority in Ukerewe Island channels implementation of this agenda to a ward level where Health officers are mandated to coordinate and guide all matters pertaining to environment and sanitation issues. By-laws and regulations are put in place which necessitates every household to have a usable toilet. However despite of awareness campaigns, penalties and fines set to defaulters, a multitude number of households still have no toilets which jeopardize their health. The practice of indiscriminate droppings of human feces inside lakes water or in areas along the lake shores is yet unabated so far.

1.1 Conceptual Frame work

Perception on susceptibility and severity in encountering water borne diseases vary considerably among fishermen depending on their age sex, personality, socio-economic status and knowledge. These demographic factors tend to influence their perceived susceptibility and severity as related to perceived threats to waterborne diseases. When their perceptions are coupled with cued actions [action leading to behavioral change] such as mass media campaign, experiencing an

illness infected a friend or family member and media report, all of these tend to create their world of view on water borne diseases which shapes their behavior with regards to perceived threats they have on water borne diseases related to water and sanitation. When perceived threats are too high lead perceive susceptibility and disease severity hence healthily behaviors and when perceived threats are too low leads to negligence hence making them prone to diseases

Figure 1: Theoretical Framework



Source: Authors Construct, 2012.

2.0 Research Methodology

Ukerewe District is administratively made up of several small Islands inhabited by a population of 261,944 people (URT, 2002) who largely engage in fishing activities as their main stay. The District is named after Ukerewe Island which is the second largest freshwater lake in the world. It is located at 2^{o} 03` South and $33^{o}$ 01` East. The areas along lake shores are considered more populated than upland areas. The study was directed to fishing communities along lake shores. A sample size of 100 households was randomly selected from three villages. The study area is considered more prone to waterborne diseases because of contamination and pollution from human activities directed to the lakes water. The inhabitants in these areas are much proclaimed to practice open defecation inside the lake or in areas vicinity to lake waters. The defecation normally takes place when people go for washing or taking bath, and sometimes during in-water fishing operations. Through semi-structured interviews, Focus group discussions and observation, primary data was collected from head of households. Informal and formal conversation was conducted to key informant individuals who provided secondary information on sanitation and hygiene practice in the study area. These included Village Executive Officers, Ward Executive Officer, Community Sanitation officer, Representative from District council who were purposefully chosen. Other secondary data was gathered from journal publications, newspaper, magazine, and internet. The collected data were processed thereafter analysed using SPSS for windows version 16.0. Data were analyzed for descriptive statistics to obtain frequencies, thereafter subjected to cross-tabulation to attain a comparison between and among variables.

3.0 Results and Discussion

3.1 General characteristics of respondents.

Findings show that the presence of people from different ethnic groups has rampantly exacerbated open defecation in the study area whereas the lake remains the only reliable source of water for drinking, cooking, cleaning/washing etc. The selected sample comprised of more men 61% than women who accounted 39%. Variations in education level attained emerged to determine differences in awareness on sanitations and hygiene promotions currently administered in the area. Of respondents, 58% had attended formal education while 42% declared to have not attended any formal education system at all. Majority of formal education

attendees' were primary school leavers who constituted 94.8%. Furthermore, significant proportions of respondents (96.0%) indicated to have ever engaged in marital relations, overwhelmed by divorce 51.0% followed by those still in marriage 31.0%, widows 13% and singles 5%. Although fishing is a prime income earning activity, means of make a living varies among individuals. Livestock keeping and farming are practiced at subsistence level with a segment of respondents accrue a living in small-scale business undertakings and others as civil servants.

According to the 2002 Tanzania National Census, the population of Ukerewe District was 260,831 with population growing at a rate of 2.9 (URT, 2002). The district record the highest fertility rate compared to other areas along Lake Victoria basin, but due to migratory nature of fishers the study area recorded lowest household family size at the time of this study. Findings shows that majority of households in the study area had 1-4 household members (63%) followed by 5-7 members (29%) and 8-10 members (8%). The on-going fishing activities attract migrants who join fishing activities from different areas. Of respondents, 65% indicated to have their origin in either of the three villages (study area) while 35% had migrated from other areas in the country. The migration involves people from areas where fishing is commonly practiced such as Kigoma, Rukwa and Tanga, while other migrants showed to have originated from areas where fishing is not a native economic activity (i.e Moshi, Tabora and Shinyanga). Migrants constituted majority who do not possess permanent and or reliable settlement. To most migrants constructing permanent toilets seems unrealistic; evidently revealing that most migrants are the ones who indiscriminately dispose excreta in nearby bushes and shrubs along the shores. Normally all fecal matters and other waste are swept direct to the lake during rain season. Information obtained from a dispensary in the study area showed that intestinal worms, diarrhea, bilharzias, and malaria are common diseases attacking people. Waterborne related diseases were among the top 10 diseases which accounted for about 61.6% of hospital attendance. Information obtained from the District Medical Officer showed that in 2008 almost all under five children who were diagnosed indicated to suffer from 9 types of water related diseases. Through discussion with Ward health officer of Namasabo, it showed that in 6 months almost every household had at least two members who suffered from water related diseases overwhelmed by under five children who were more vulnerable.

3.2 Community behavior towards waste disposal

Proper disposal of human waste is considered important for good health. Leaving human waste unattended in the surroundings can result into contamination of water sources leading to spread of water-borne diseases. The spread of parasites like V. Cholerae, Giardia are suggested to result from human behaviors of poor waste disposal (WHO/UNICEF, 2000). Findings indicate that, despite of health interventions along with sanitation and hygiene promotions in the study area, cases of water-borne disease takes a toll aggravated by improper fecal disposal. It was observed that, a small proportion of households in Namasabo, Kaunda and Ukara villages have temporal pit toilets (29%, 15% and 21% respectively) and only 1%, 2 % and 4 % have permanent pit toilets in respective villages, and about 28% of the households have no toilet at all. 56% share toilets with neighbors while 44% undergo open defecation in nearby farms or shrubs. It was revealed further that, households with no toilets/toilets increases during rainy season whereas most of the so called temporal toilets tend to collapse because of being poorly constructed aggravated by nature of sandy soil. During rainy season, most of the temporal toilet collapses allowing waste to overflow and swept away to water bodies. As is the case for most villages in Tanzania, no public toilets were found in the study whether for pay or free. Therefore for a visitor taking a hide in nearby bushes or shrubs continue to be a normal practice as an option when seeking for either long or short call.

For Tanzania an estimated 76 per cent of the country's population still has no reliable access to sanitation facilities that hygienically separate human waste from the environment, including people's dwellings (Sylivester, 2011). That means a multitude number of Tanzanians still practice unhygienic practice of disposing fecal matters into unhygienic sanitation facilities such as bucket toilets, public or shared toilets and open pit toilets. Areas of Kibondo, Ngara, Shinyanga and Kasulu districts are considered to have the least decent toilets in the country. TWESA (2011) link this trend with cultural factors, poverty and lack of adequate sensitization on proper hygiene and sanitation. The National Health Policy of Tanzania (1990) clearly stipulates for every households to have a decent toilet. The Toilet Construction Guide issued by the Health and Social Welfare ministry in 2009 says a toilet of acceptable standards should have an impervious floor, a roof and door (URT, 2010). A study carried out by World Bank appallingly reveal that $8.1 million is lost each year in access time by people practicing open

defecation because each spends almost 2.6 days a year finding a private location to defecate, leading to economic losses (Otage, 2012).

Apart from toilet use, findings indicate that most of the households lack garbage pit intended for keeping waste. Normally waste is collected and thrown away into nearby fields or along pathways. Waste is left to decompose right there and conversely during rainy season waste decompose and harbors vectors such as flies. Along lake shores normally waste generated from fishing activities are left to decompose over there and or thrown back to the Lakes water. However, the existing Local Government Authority play a vital role in administering by-laws and coordinating promotions campaigns to out win improper waste disposal.

3.4 Fishers' perceptions and causes for inconsistent use of toilets

Special efforts have been made by local government authority in Ukerewe Island in promoting proper use of toilets to all types of call. Little success can be declared to have been achieved so far. It continues to be a custom especially to fishers practicing open defecation along the shores or in lakes water. This happens during in-water fishing operations or when people take bath. One fisher narrated that

"Normally bath taking goes concurrently with excreta droppings since there are no toilets around or any relevant sanitation facilities which can serve purpose of a toilet so we just easy ourselves in the Lake" another fishermen added further that "after all water is free and fish normally feed on fecal matters once swept inside the lakes water so nothing is wasted".

"We have experienced in waterborne diseases for years, we just treat them by self-medication either herb or biomedical. Everyone knows how mwiyunge (traditional herb) and rangi mbili (calposes mainly tetracycline) works on stomach aches and other complications. It does better even for bilharzias.

Above narrations have two implications first is that community has no fear about open defecation as they believe fish feed on fecal matter once swept or deposited inside the lake. Secondly is that past experiences on self medication give them confidence as they are able to treat the waterborne diseases they encounter by either herbs or biomedicine. This takes to a

theoretical framework; the two above narrations imply that waterborne diseases pose low or no threats or severity to people. Furthermore, the above narrations depict that the imbedded socio-cultural behaviors in the study area perpetuate inconsistence use of toilets. This can clearly be exemplified by socio-ecological health model by Healthy Active Oregon (2003) which realizes the importance of individual behaviors in instituting and managing sanitation interventions. The model recognizes the interwoven relationship that exists between the individual norms, values, regulations and their environmental sanitation.

The majority of fishers declared that they don't possess toilets 72% and only 28% indicated to possess toilets. Strikingly, even amongst those who indicated to possess toilets still undergo open defecation along the lakes water especially prior bath taking. During a focus group discussion it was evident that, open defecation prior bath taking is preferred since it offers cheap and easy self cleaning after defecating. One fisher was noted saying;

"There is no need of toilet papers or using tree leaves, once a bowel is empted, the cleaning is done inside the lakes water which is free of charge"

Such act jeopardizes the quality of water as fecal matter tends to pollute and contaminate water environment. A noted implication of Lake Victoria water pollution is that of fish export ban from East Africa during 1998 and 2000. The ban came following conviction of salmonella contamination and some bacterial traits of cholera and suspicious presence of pesticides residues (FAO, 2005). Livelihood of fishing communities were deterred rendering into un-imaginable menace. Failure of constructing a decent and recommendable toilet was attributed to poverty levels experienced by fishing communities.

However, a good number of fishers indicated to have awareness on sanitation and hygiene practices despite of inadequate adoption practices. Most of fishers attended formal education overwhelmed by primary school attendees. Formal education attendees showed to put much value on possession and regular use of toilets while many of non-formal education attendees showed to pay casual concern on consistent use of toilets. Some defended open defecation along lake shores as way of enriching water environment suitable for fish growth. Others attributed it with the migratory behavior of fishers as they normally don't own plots in landing areas. Some migrants argued that in several beaches where they ever happened to live, there were no specific designated areas for constructing a toilet making them not consider having a permanent toilet. In another context, several fishers defended having temporary toilets as way of skipping high cost

involved in re-building toilets in a sandy soil with argument that during rainy season most toilets built on sandy soil tend to collapse because of raised water table. In fact this could not be underrated since toilets are built on sandy soil which is a characteristic of most natural lake shores.

4.0 Conclusion and Recommendations

The lack of toilets in lake shores around Ukerewe Island perpetuates indiscriminate dropping of human fecal matters. Stricken poverty, influx of migrants, people's negligence and inadequate awareness on the importance of proper fecal disposal largely accounts for persistent open defecation. For most fishermen who live proximity to lakes water body, bath taking is normally preceded by open defecation. During rainy season all fecal matters are swept to contaminate the lakes water making the area prone to water-borne diseases. However, eradication of such practice is practicable if community members become aware on the benefits of consistent use of toilets. Areas characterized by influx of migrants, a public toilet should be established to enable easy access to excreta disposal for visitors, migrants and the public in general. Lastly, individuals themselves within a community should take lead in behavioral change thwarting off open defecation into consistent use of toilets for all calls and not otherwise. Set rules and regulations should be accompanied by fines and penalties to make people feel the pinch of practicing open defecation.

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