

SHARING HEALTH INFORMATION: A STUDY ON THE KNOWLEDGE OF OBSTETRIC
FISTULA AMONG RURAL AND URBAN WOMEN IN THE CENTRAL REGION

BY

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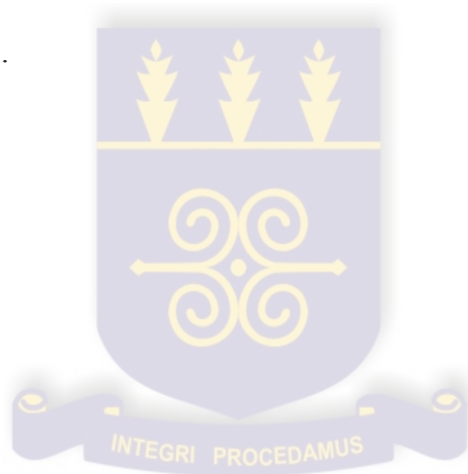
THIS THESIS/DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF GHANA,
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DECLARATION

I declare that, except for references to other people's work which have been duly acknowledged, this dissertation is a result of my own piece written under the supervision of Mr. Gilbert Tietaah of the School of Communication Studies, University of Ghana, Legon.

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DEDICATION

I dedicate this work to God, My Loving Father, and to all persons who have dedicated themselves to eradicating Obstetric Fistula in Ghana and the world at large.



ACKNOWLEDGEMENT

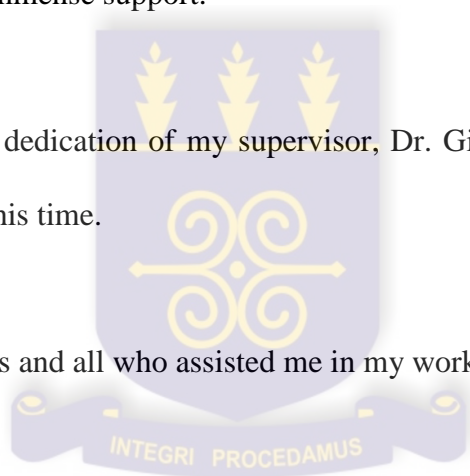
I thank God, My Loving Father, for how far He has brought me.

I thank Dr. Gabriel Ganyaglo, Specialist Obstetrician and Gyneacologist, Korle Bu Teaching Hospital for drawing my attention to this disease condition which has been plaguing women, even in the 21st Century.

I am grateful to the head (Mr. Mustapha Salifu) and staff of the Public Relations Unit, Korle Bu Teaching Hospital, for their immense support.

I appreciate the patience and dedication of my supervisor, Dr. Gilbert Tietaah, in assisting me, most often, at the expense of his time.

I also thank my family, friends and all who assisted me in my work.



ABSTRACT

Obstetric fistula is a preventable, treatable, but most often neglected medical condition, in which a woman constantly leaks urine, faeces from a hole created between the birth canal and the urinary bladder and/or rectum as a result of delayed labour. Some studies have noted that obstetric fistula is a condition which deprives its victims of their human rights because of stigmatization from their family, friends and society at large. Knowledge on the condition has, however, been noted to reduce this stigma. People who have adequate information about the condition are said to be more likely to support victims and assist in their reintegration into society. Since women are mostly affected by this condition, the researcher sought to find out their knowledge on it and their attitudes towards accessing health information in general. The Knowledge Gap Theory and Health Belief Models were adopted for the study to find out if there were differences in knowledge on OF between rural and urban women and to provide reasons that make people make a positive behavioural change.

A triangulation of research methods was used: interviewer-administered survey of women in two rural communities (rural and urban) and in-depth interviews of health practitioners, opinion leader and an obstetric fistula victim.

Results from data collected indicated that whether a woman was from a rural or urban area was a major determinant on their knowledge on obstetric fistula. Women in urban areas were more likely to know about the disease condition than their counterparts in the rural area. Again, while a woman's level of education affected her knowledge on obstetric fistula, her socio-economic status generally, was less likely to determine whether she knew about the condition or not. The study also revealed that an individual's perception of susceptibility and severity to a disease condition does not translate into accessing information on it.

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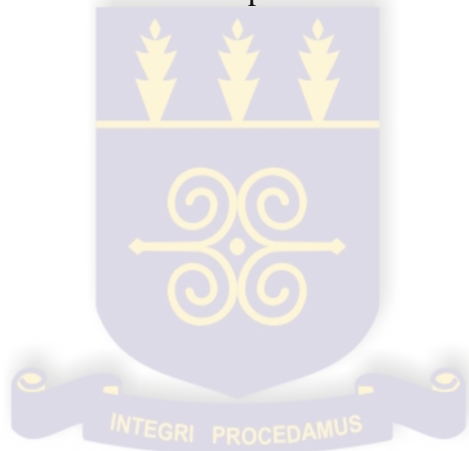
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CHAPTER ONE: INTRODUCTION

1.0 Background

Health is a fundamental standard of human rights codified and enshrined in several universal human rights conventions and documents. Examples include: Article 25 of the Universal Declaration of Human Rights; Article 12 of the International Covenant on Economic, Social and Cultural Rights; Article 24 of the Convention on the Rights of the Child; and Articles 12 and 14 of the Convention on the Elimination of All Forms of Discrimination Against Women. In Ghana, the right to health is also specifically expressed in the 1992 Constitution: Articles 34 (2), 36 (10), 39 (2). The World Health Organisation (WHO) defines health as a state of complete physical, mental and social-wellbeing and not merely the absence of disease or infirmity (WHO, 2006:1).

Health, therefore, includes physical, social and psychological well-being (WHO, 2006). The state of health may, therefore, be looked at from different angles such as areas of sanitation, reproductive health and availability and access to healthcare. Improvement in reproductive health is important to ensure the sustainability of a country. The survival of babies and mothers at delivery ensures that society can continue from one generation to the next.

The WHO definition of health, which implies prevention of disease and pursuit of the intangible attributes of a valuable livelihood, makes the role of knowledge and information particularly important. Knowledge and information are central to prevention and well-being because, as the popular saying goes, a healthy nation resides in a healthy body. According to Whiddett, Hunter, Engelbrecht and Handy (2006), most people do not have much reservation in sharing information

on health if they know who the recipient of such information is, the type of information they need to give and the assurance that the consequence would be beneficial to themselves and others. Patients are observed to be more willing to share their information with health personnel or persons with similar conditions. Studies have revealed that controlled sharing of health information can bring about improved self-management of people with similar conditions (Wicks, Keininger, Massagli, De la Loge, Isojarvi et al, 2011). The patients are willing to have their personal information given out for clinical care purposes but, in most cases, they like to be consulted before the release of the information. When the same patients are required to give out their personal information to other people, who may not have the said condition, however, they are less forthcoming. By sharing information among people with similar conditions, they get a better understanding of their case and treatment options. Such an avenue prevents a feeling of loneliness since other people experiencing the same condition come together to interact and console each other.

Information on various health issues can therefore be shared among similar and different types of people. The information received can educate, elaborate or even serve as a precautionary measure for the recipient. Health service providers may share personal health information for the purpose of immediate care for an individual's health. Health records are one of the methods of communication between treatment team members. For example, where a patient goes into a hospital for an operation, information sharing may occur between the referring local hospital or primary health facility visited, treating specialist, diagnostic service technicians, pharmacists, pathologists and anaesthetists.

In health communication, information may be given or shared with a view to sustain, change or encourage behaviour. Individual, group and mass communication channels may therefore be employed in educating the public to enable them take critical health decisions based on adequate information. A condition that lends itself well to the communication outcomes of encouraging or changing behaviour to prevent lifestyle-related health problems is obstetric fistula.

1.1 Obstetric Fistula

Child bearing is a normal process which every fertile female can undertake, but sometimes, in the course of this function complications or even death can occur. Complications may come about for the mother, the unborn baby or both. Sometimes, a woman may also develop an obstetric fistula (OF) in the process of child-bearing.

The WHO estimates that every year, about 585,000 women die from complications of pregnancy, abortion and childbirth worldwide, with the majority of them occurring in developing countries. They further estimate that 10 to 15 of the total number of women who die every year get injured or permanently damaged from pregnancy and labour complications. One of such worst injuries for the survivors is obstetric fistula (Lassey, 2011). The United Nations Population Fund (UNFPA, n.d.) defines OF as “a devastating child birth injury that has been severely neglected, despite the traumatizing impact it has on the lives of affected women and girls.”

The World Health Organisation (WHO, 2012) describes obstetric fistula as a medical condition in which a hole is created between the birth canal, the urinary bladder and or the rectum as a result of prolonged labour. The WHO (2012) notes that this preventable, treatable but often

neglected, condition occurs when a woman is in labour for four to five days during which the bony head of the baby presses on the mother's pelvis. When the expectant woman fails to get an emergency caesarean section or skilled personnel to perform the surgery, she will be in constant pain. The pressure on the pelvic bone deprives blood flow to the tissue, leading to the tissues falling away and creating a hole or fistula. In most fistula cases the baby dies and the woman is left with chronic urinary or faecal incontinence (Hamlin, 2013; UNFPA, n.d.; WHO, 2012). The infant's head descends into the maternal pelvis and cannot pass through, usually because the woman's pelvis is too small or poorly developed or the infant is too small or is poorly positioned.

The literature (Banke-Thomas, Kouraogo, Siribie, Taddese & Mueller, 2013) identifies two broad types of obstetric fistula: 1) Vesico-vaginal fistula (VVF) is defined as the situation where a fistula or hole occurs between the bladder and vagina or rectum. 2) Recto-vaginal fistula (RVF) is when the hole is created between the vagina and the rectum. In some extreme cases, fistula can occur in the bladder, rectum and vagina.

The United Nations Population Fund (UNFPA, n.d) estimates that, currently, between two to four million women suffer from OF in low-income countries in Africa, Southeast Asia and the Middle East (WHO, 2012). From this estimate, another 50,000 to 100,000 women and girls develop the condition each year (Info Report, 2004; WHO, 2012).

Data on the full extent of obstetric fistula is not known to have been comprehensively mapped. Estimates on its incidences, especially in under-developed countries, are therefore based on the number of women who seek treatment; thousands could therefore be suffering in silence.

1.2 Factors and Effects

Research points to a number of pre-disposing factors of OF, particularly poverty, lack of access to health facilities, wrong beliefs and lack of knowledge about the condition. The WHO (2012), for instance, notes that OF is known to occur among impoverished, vulnerable and marginalized girls and women living in areas where medical care services may not be easily accessible or may even be non-existent. Studies have also shown that women below 20 years are more prone to obstructed labour since their bodies are not fully mature. In most studies, the average age of women with fistula is between 22 to 23 years but some women with fistula are as young as 13 or 14 years. In Ethiopia, more than 95 percent of women with mean age of marriage at 14.7 and delivery at 17.8 developed fistulas after obstructed labour (Biadgilign, Lakew, Reda & Deribe, 2013). Fistulas can also form at 35 – 40 years of age because the birth weight of infants tends to increase with subsequent pregnancies. Short, pregnant women are likely to develop a fistula when there is obstructed labour (Info Report, 2004; WHO, 2012). Women having their fourth or fifth pregnancy may have larger babies and be at risk of obstructed labour and obstetric fistula (www.fistulacare.com). Other risk factors for OF include availability and accessibility – which may prolong the time it takes to transport the pregnant woman in labour to a health facility.

Due to the abnormal opening between the vagina and the bladder or rectum which constantly leaks urine, faeces or both into the vagina, fistula patients often have a foul smell on them. The incontinence and the attendant smell have been known to cost most of its victims their livelihood, marriage, family and even society. Unable to stay dry, they are often abandoned by their husbands and family and shunned by the community. Without treatment, prospects for work and family life are often grim.

A woman who becomes a victim of obstetric fistula may, therefore, attempt to hide her injuries. Most fistula patients are known to keep to themselves, most often, hiding their condition for years instead of seeking surgical attention for fear of public scorn. Some patients may also live a secluded life and may often be sad, depressed or even suicidal (Weston, Mutiso, Mwangi, Qureshi, Beard & Venkat, 2011; Zheng & Anderson, 2009; Blum, n.d.). In Somalia, a group of fistula patients were said to have formed a human chain and jumped off a deck in Mogadishu into the Indian Ocean as a means of ending their lives and misery (Lassey, 2011). Banke-Thomas, Kouraogo, Siribie, Taddese and Mueller (2013) describe OF as a breach of human rights due to the physical, emotional and psychological trauma its victims endure.

Studies have proven that when people know much about the condition they are less likely to maltreat its victims or sufferers. Again, when women are educated about the condition and are aware of treatment options, they become more confident and are likely to seek treatment (Blum, n.d; Weston, Mutiso, Mwangi, Quresh, Beard & Venkat, 2011). Knowledge on OF would therefore, play a major role in reducing public stigmatisation and emotional turmoil for affected women and their families.

1.3 Factors against Eradication Efforts

Even though OF can be surgically corrected, people attribute its occurrence to various myths and misconceptions due to the lack of information on the condition; and the seeming lack of knowledge on the condition often results in victims being poorly treated or stigmatised. The condition has been associated with infidelity and in some areas, fistula patients are seen to have

been punished by the gods for their misdeeds (Info Report, 2004). Others believe the condition is incurable or contagious (WHO, 2012).

According to the UNFPA (n.d.) poverty, socio-economic and gender inequalities, poor health systems, child marriage and early child-bearing militates against eradication of fistula among women. Harmful traditional practices, unassisted births and lack of opportunity and empowerment for women and girls also affect eradication efforts.

In Ghana, certain policies such as legalising age for sexual consent at 16 years and the ongoing debate to make the same age legal for marriage can inhibit the eradication of obstetric fistula among women in the country.

1.4 Campaign to End Fistula

In 2003, the UNFPA launched a global campaign to prevent and treat obstetric fistula in developing and under-developed countries. The aim of the campaign is to ensure that the incidence of obstetric fistula will be non-existent in endemic areas by the end of 2015, as developed countries have been able to prevent its occurrence (UNFPA, n. d.).

Since its inception, the campaign has been instituted in more than 50 countries in Africa, Asia, the Arab region and the Caribbean. About 38 countries have also completed a situation analysis on the treatment and prevention of Obstetric Fistula and have integrated the condition into relevant national policies and plans (UNFPA, n. d.). The UNFPA and its partner agencies hope to achieve their target by raising awareness about OF to target audiences, expanding emergency

obstetric services while training surgeons and nurses, and reintegrating victims back into society after treatment.

The awareness-creation programme under the campaign is targeted at a variety of audiences in both developing and developed countries including policy makers, health professionals, media and the general public. This is done through the utilization of group, individual and mass communication tools to inform and empower women and society generally about the condition. The UNFPA and its partners also contribute to resource mobilisation for fistula programmes both within and outside of UNFPA. In Ghana, as part of efforts to eradicate OF, the winner of the 2007 beauty pageant, Miss Ghana 2007, Miss Frances Takyi-Mensah embarked on a campaign of mobilizing resources and creating awareness on the treatment and rehabilitation of women with fistula.

Generally accepted estimates suggest that 23.5 million women live with OF in the developing world and between 50,000 and 100,000 new cases develop each year. Independent research by Adler, Ronsmans, Calvert and Filippi (2013) and Banke-Thomas, et al. (2013) show that in terms of global distribution, incidence rates of fistula among women of reproductive age in Sub-Saharan Africa currently stand at 1.60 per 1,000 women; South Asia has 1.20 per 1,000 women and West Africa has between one to three cases per 1,000 women. Available figures at the national level show that Ethiopia has a prevalence rate of about 7.2 per 1,000 women of reproductive age while Malawi has about 1.6 per 1,000 women child-bearing age (Biadgilign, Lakew, Reda & Deribe, 2013; Kalilani-Phiri, Umar, Lazaro, Lunguzi & Chilungo, 2010). Specific data on fistula in Ghana is not available. Dr. Gabriel Ganyaglo, an Obstetrician

Gynaecologist at the Korle Bu Teaching Hospital notes that the number of fistula patients who visit a health facility “is a small fraction of the many fistula patients who are hiding on their farm or leaving in a remote village which cannot be accessed on a normal day in this country” (Ganyaglo, Personal interview, August 31, 2014).

1.5 Problem Statement

Besides other clinical factors, lack of knowledge on obstetric fistula has been found to be the reason for its continuous occurrence in developing and under-developed countries. Of the factors identified, awareness about the condition will empower women to undertake preventive measures before pregnancy and at the onset of labour to ensure that they do not become a victim of obstetric fistula. For those who become victims, adequate information on fistula will enable them access surgical operation to repair the hole to enable them live a normal life.

In Burkina Faso, Banke-Thomas et al (2013) sought to compare the knowledge on OF among young women in rural and urban areas. However, they did not assess how the communication channels used assist in achieving this objective and the condition under which women will seek information on the condition. This study, therefore, sought also to find out if there was a difference in channel choice and use between rural and urban respondents which might explain any consequent differences in knowledge between the two population segments. In Ghana, there is evidence to support the fact that there are incidences of Obstetric Fistula; however there seems to be little knowledge about the condition (Futa, 2008; Ganyaglo, 2014). In the course of finding literature on knowledge and awareness-creation programmes in Ghana, this researcher did not

come across any study undertaken in Ghana to find out the level of knowledge, if any, on fistula among women, who are mostly affected.

The current study therefore, sought to find out if there were differences in knowledge on OF between rural and urban women in Ghana and the possible reason(s) for the differences. It was designed to determine the role that the variable knowledge and information gaps among the public played in the predisposition to OF. Besides the role of knowledge gaps, however, available literature suggests that perceived threats of susceptibility and severity to a condition can contribute to acquiring knowledge on the condition. This study, therefore sought to find out if an individual's perception of susceptibility and severity to OF would enhance acquisition of knowledge on OF as the Health Belief Model suggests.

1.6 Purpose of Study

This study was undertaken with the expectation that data collected would not only add to current literature on OF but also assist in the following areas:

1. To provide empirical data on the current knowledge on OF among rural and urban women in the country to inform future awareness-creation programmes.
2. To enable health communicators and care-givers apply the data collected to strengthen, change or maintain strategies being used to educate Ghanaians about OF
3. Findings from the study will serve as a basis for further studies for the implementation of policies and behaviours that enhance OF eradication efforts and knowledge acquisition on health by Ghanaians in general.

1.7 Research Objectives

The study sought to find out how information and knowledge of OF might help reduce its incidence, or at best prevent its occurrence. The specific objectives were, therefore, to find out:

1. the attitude of women towards health information messages;
2. the communication tools and activities being used to prevent and manage OF and the reason(s) for them;
3. the knowledge, attitude and practices of health providers on OF.

1.8 Research Questions

To get data on the knowledge of OF between rural and urban women in Ghana, the researcher was guided by the following questions;

1. Is a woman's access to health information affected by her socio-economic status?
2. What are the attitudes of women towards health information messages
3. How does the attitude of women towards health information messages affect the prevention of OF?

1.9 Hypothesis

Based on findings from some studies on the knowledge of women on OF, the researcher hypothesised that:

H1: There is likely to be a gap in knowledge on OF between rural and urban women

Rationale: This is likely to be so because findings from a cross-sectional study undertaken in a health district of Burkina Faso confirmed that women in the rural

areas were less likely to have knowledge on OF than their colleagues in the urban areas (Banke-Thomas, Kouraogo, Siribie, Taddese & Mueller, 2013).

H2: There is likely to be a relationship between one's perceived severity and susceptibility to OF and accessing health information.

Rationale: Vermaas and Wijngaert (2010) suggest that the information-seeking behaviour of individuals on health is due to a belief that they may be vulnerable to a disease and will, therefore seek information in order to prevent it.

1.10 Operational Definitions

- **Rural area:** A locality with less than 5,000 persons (PHC, 2010). Otum in the Central Region of Ghana was used to represent the rural community.
- **Urban area:** A locality with 5,000 or more persons (PHC, 2010). Mankessim in the Central Region of Ghana was used to represent the urban area in the study.
- **Woman:** a female aged between 13 to 60 years
- **Employed:** Anybody who undertakes activities and receives, payment in cash or other form agreed upon by both the person undertaking the service and the one who benefits from. The person may be hired to undertake the service in private, public or other institution
- **Self-employed:** a person who has her own income-generating venture such as selling anybody indulged in their own business, either large or small, and not working for somebody

- **Household:** a person or group of persons living together in the same compound and share the same house-keeping arrangement. This may include a husband, wife, children and other persons who may, or may not be related by blood (PHC, 2010).

CHAPTER TWO

LITERATURE REVIEW

3.0 Introduction

This chapter is divided into two broad sections. The first section discusses the theoretical framework of the study; comprising the Knowledge Gap Theory and the Health Belief Model. The precepts and assumptions of the two theories complement each other and provide the context for the expectations and interpretation of findings of the study. The second section reviews and analysis of related studies in the field and identifies gaps which findings from the study sought to fill.

2.1 Theoretical Framework

This study used the Knowledge Gap Theory (KGT) and the Health Belief Model (HBM) to find out if there were differences in information reception between women in the rural and urban areas on Obstetric Fistula (OF). The theories assisted in finding out differences and gave possible explanations to factors which contribute to people making a behavioural change from a negative to a desirable one.

Demers and Viswanath (1999) posit that knowledge alone cannot lead to social change. They (1999) explain that not every type of knowledge had implications for change. Knowledge, including the knowledge of how to act efficaciously, for instance, has the most potential to lead to change on social or individual levels. In this regard, the HBM offered insights for collecting data on reasons or circumstances that are likely to make people seek out information and acquire relevant knowledge and locus to adopt desirable health behaviour.

2.2 Knowledge Gap Theory

The Knowledge Gap Theory (KGT) was introduced by Tichenor, Donohue and Olien (1970) to explain breaks that occur in the course of information infusion into the society and reasons for the occurrence.

The theory states that:

As mass media infuses information into a society, segments of the population with higher socio-economic status tend to get the information quicker than those in lower socio-economic status, thus creating a knowledge gap (Tichenor & Donahue, 1970, p. 159).

Baran and Davies (2009) also define knowledge gap as a systematic difference in information between better-informed and less-informed segments of a population.

Tichenor and Donahue (1970 as cited in Anduiza, Gallego & Jorba, 2012) suggest that education, socio-economic status, relevant social contact, nature of mass media and selection exposure, acceptance and retention can bring about a gap in the course of information infusion. Cho and Mcleod (2007) explain that education leads to more sophisticated communication skills and abilities that help individuals' process information more thoroughly and effectively. Well-educated individuals are also more likely to have greater opportunity for both mass and interpersonal communication. This is because, first, education shapes knowledge by altering factors such as communication skills, cognitive ability and motivation. Secondly, education enables greater communication opportunities by expanding the cycle of social and economic access.

Per the assumption of Tichenor and Donohue (1970), the theory is concerned mainly with the aggregate of information infused into the society among various social classes and the specific subjects or topics on which some people are better informed than others.

The KGT was developed to try and explain certain phenomena among the masses and questions such as: Why is the population not fully aware of developing issues that are covered by the media?

According to the KGT, information gaps may occur in the course of distributing messages, and the various channels used in this process may either contribute in creating a gap in the acquisition and comprehension of the information among the target audiences or ensure that all the target audiences receive the intended message. For instance, because the print medium tends to exclude the poor and illiterate segments of the population, it is noted to cause a widening of gaps in knowledge between the elite/ upper classes and the poor/ lower classes of the population compared, for instance, to television and radio (Jerit, Barabas & Bolsen, 2006). Television utilises audio-visual signals, which enable both literate and illiterate audiences to understand messages being conveyed. Again, as compared with the print media, television reaches a larger population with the same news and information and is also considered a credible source (Mcquail, 1994).

Since the return to multi-party constitutional governance in Ghana in 1992, there has been a varied and increasing array of media sources with different audiences and preferences. Thus, the former homogenous audience for information has changed. The introduction of the internet has further widened the division between the information-rich and information-poor audience. The internet offers its audience more choices for content selection than radio, television and newspapers combined (Anduiza, Gallego & Jorba, 2012). As a result of this, people with higher information skills and resources are likely to use the internet, for instance, in addition to the

traditional media in accessing information than those who may have fewer resources and opportunities of access to information.

Anduiza, Gallego and Jorba (2012) conducted a study on how internet use affects political knowledge gaps due to education and political interest in Spain. They found evidence to show that using the internet increased knowledge more for the highly educated than those with lower levels of education. While the current study examines the subject of health, rather than politics, the Anduiza, Gallego and Jorba (2012) finding does provide the logic for examining the possibility of gaps in knowledge on OF by urban and rural populations.

Graber (2004) argues that beyond individual resources and motivations, political knowledge acquisition for instance, depends on the availability of free information provided by the context and in particular the media. Changes in the media context, such as the availability of free information and the multiplicity of channels therefore, are expected to cause same in political knowledge. Even beyond knowledge, Grimmer (n. d.) notes that there is also the need for resources, not only to aide in understanding what to do with the knowledge acquired but to also implement social changes once there is understanding of what to do with that knowledge.

Using the KGT for this study and based on available data, therefore, the researcher was guided by the various circumstances such as channels, resources, education, motivation, interest, among other cues which can contribute to gaps in the course of information distribution and understanding of intended messages by target audiences.

2.3 Health Belief Model

The Health Belief Model (HBM) was used as a supporting theory in the study to explain possible circumstances and reasons for accessing health information and adopting positive health behaviour. Its links to the KGT is actually implicit in the suggestion by Anduiza, Gallego and Jorba (2012) that knowledge does not necessarily depend on the factors noted by Tichenor, Donohue and Olien (1970, as cited in Cho and Mcleod, 2007) but on one's level of cognitive resources and motivation.

The HBM is an intrapersonal theory which has been used widely to understand health behaviour. The theory was developed by Godfrey Hochbaun and Irwin Rosenstock in 1974. It assesses the health behaviour of individuals through an examination of perceptions they may have towards disease conditions and the impact of their actions if they fail to adopt positive health behaviours. The theory has been extensively used for over decades in behavioural sciences to predict behaviours and to design behavioural-prevention programmes.

The HBM assumes that behaviour change occurs when an individual recognizes that there is enough reason to make a health concern relevant (Burke, n.d.). The individual understands that (s)he may be vulnerable to a disease or negative health outcome and finally realizes that behaviour change will be more beneficial and outweigh any costs of undertaking a recommended change. The HBM therefore, states that to plan a successful educational intervention, the individual or group's perceived susceptibility; perceived severity of a health condition and its consequences; perceived benefits in taking certain actions to reduce risk; perceived barriers (e.g. costs of the advised action) and cues to action (strategies for activating the readiness to undertake

health actions) are required. It identifies perceived vulnerability or susceptibility, perceived efficacy or benefit of control measures and the perceived benefits and barriers to prevention, as the main factors for decision-making (Glanz, Rimer & Lewis, 2008).

The theory also includes a cue to action; whereby the individual is spurred to adopt the preventative behaviour by some additional element (Rosenstock, 1966 as cited in Carpenter, 2010). These cues to action can be through external factors such as mass media campaign or internal cues like a negative change in bodily state.

According to Rice and Atkin (2010), whether individuals believe they are susceptible, whether messages are relevant and whether individuals have options, will determine whether they decide to change from negative health behaviour. Janz, Champion and Stretcher (2008) note that whether or not individuals take action to protect their health depends on whether they believe that they are susceptible to an ill-health condition. They (2008) hold that if the occurrence of a health condition would have serious consequences and there is available a course of action to avoid the condition with benefits far outweighing the cost of taking that action then positive action be taken.

Vermaas and Wijngaert (2010) explains on the basis of the HBM that the way people seek health information is a reactive process that assumes that people will not take action to avoid a disease unless they feel vulnerable to the disease, believe a preventive measure is feasible and efficacious or someone around them falls ill or they are advised by others. This assertion implies that when one feels threatened and believes there is a risk of getting a disease condition, one is

more likely to acquire knowledge on it to prevent being affected than if one did not feel at risk of the condition.

In explaining the theory, if a smoker does not feel that he is at risk of developing lung cancer, bladder cancer etc (perceived susceptibility) he is unlikely to make a behavioural change. On the other hand, another smoker may feel threatened by lung cancer if he has developed a strong cough, for instance, since this could be a symptom that increases his level of threat and triggers his decision to quit. If the smoker does not however, understand how difficult lung cancer can be diagnosed (perceived severity), he is unlikely to change his/her negative behaviour to an acceptable one.

A study to assess the effectiveness of health education intervention based on the HBM in reducing the risk of osteoporosis development in female adolescents, found data to show that the use of the theory can induce a behavioural change (Hazavehei, Taghdisi & Saidi, 2007). Randomly selecting 206 from nine middle school females in Garmsar, Iran, into three groups, the students underwent various educational sessions on osteoporosis using all components of the HBM. The three groups were Group 1 (Experimental group), Group II (took part in traditional didactic health education curriculum on osteoporosis routinely offered to middle school students in the study area) and Group III (who had no specific educational programme for preventing osteoporosis). Findings from the study suggest that with an understanding of behavioural processes through the HBM, educational interventions can be used in disease prevention. While an experiment was beyond the scope and capacity of the present study, the Hazavehei et al (2007) finding provided the basis for the expectation that knowledge and information levels will

co-vary with awareness and attitudes towards OF. The use of education for behavioural changes can be linked to the KGT which also asserts that education increases the level of one's information-seeking activities and comprehension to bring about a behavioural change.

2.4 Related Studies

A trend analysis by the WHO (2004) shows that since the 1950's to date the average life expectancy at birth has seen some increment, worldwide. This improvement cannot however be said to be universal since there are still significant inequalities in healthcare in some parts of the world (Casa-Zamora & Ibrahim, 2004; Marmot, 2005; People's Health Movement et al, 2005). For instance, in Ghana, it has been estimated that only 35 per cent of all deliveries are attended by a qualified medical practitioner with the remaining 75 per cent of women either delivering at home or seeking traditional help (IRIN, 2008). The reason, these studies revealed, is due to lack of access to health facilities. A study by Van den Boom, Nsowah-Nuamah and Overbosch (2004) revealed that access to health facilities was not evenly distributed across the country, with most rural areas lacking doctors or nurses. The study further found that Ghanaians on average live about 16km from a healthcare facility where they can consult a doctor, but half of the population lives within a 5km radius. The Ghanaian Constitution however, provides that "the state shall safeguard the health, safety and welfare of all persons in employment and shall establish the basis for the full deployment of the creative potential of all Ghanaians" (Republic of Ghana, 1992, Article 36/10).

Reproductive health remains a big issue in the Ghanaian health sector even though neonatal and antenatal care is covered by the national insurance scheme (CBC, 2005). It has been estimated

that only 35 per cent of all deliveries are attended by a qualified medical practitioner with the remaining 75 per cent of women either delivering at home or seeking traditional help. The WHO estimates that 560 pregnant women will die out of every 100,000 that go into labour while the Ghana Health Service notes that for every 10,000 births in the country, over 214 women in Ghana die in the process of delivery (IRIN, 2008).

2.4.0 Health Communication

One's ability to realise this right to access to healthcare and its utilization can be connected to the education and promotion of health education to citizens. Health education is not only concerned with sharing health-related information but also enhancing skills and confidence (self-efficacy) needed to undertake positive health behaviours and the communication of information concerning the social, economic and environmental conditions which affect health, as well as individual risk factors and use of healthcare systems (WHO, 2012; Viswanath & Ackerson, 2011). Health communication can therefore play a major role in, not only providing information on preventive and treatment options but also ensures that citizens are aware of their behaviours and attendant implications. The current study sought answers to how the health communication function of care-givers enhanced knowledge of a health condition, in this case, obstetric fistula.

2.4.1 Education as a Determinant for Accessing Information

A study by Viswanath and Ackerson (2011) however, provided empirical evidence for the claim that usage of health communication can be coloured by variable factors, including social class. Using the survey method, 5,187 US residents were randomly sampled; with Hispanics and non-Hispanic blacks being over-sampled and interviewed over the telephone in English or Spanish.

Hispanics and non-Hispanic blacks trusted all media sources for information on cancer with the exception of the internet. Conversely, white residents were less likely to pay attention or trust information on cancer from radio, television or magazines than non-Hispanic black or Hispanics. This was so because non-Hispanic black or Hispanics did not know how to use the internet due to their low educational levels. Viswanath and Ackerson's (2011) identification of education as another determinant of the usage and belief in health information can be related to Banke-Thomas et al (2013) and De Wet, Du Plessis and Klopper's (2013) studies which also noted that gaps in knowledge on health information could be as a result of one's educational level.

Sharifirad, Entezari, Kamran and Azadbakht' (2009) study showed that nutritional education could increase patient's knowledge and reduce their fasting blood glucose. The study, which divided 88 type-2 diabetic patients into an intervention and control group, found that after gaining knowledge through education on nutrition, participants' attitude and practices of the patients changed. Participants, who were type-2 diabetic patients, were randomly selected from the Iranian Diabetes Association where they attended seminars. They were sub-divided into two groups, given two educational sessions for 80 minutes each and administered with questionnaires before and a month after the intervention. Results confirmed assumptions of the HBM that individuals were likely to change their behaviour if they understood a message, perceived the health problem as a threat or severe. For instance, after the intervention, knowledge scores increased in the intervention group as compared to the control group. Results for perceived severity, threat and benefits were the same among both groups. While there was a significant increase in the intervention group on perceived susceptibility, there was a reduction in results on

perceived barriers by the intervention group as compared to the control group after the intervention.

Education empowers one with critical and adequate information to take the right decisions but language serves as a level basis for interaction and comprehension of messages (Banke-Thomas et al, 2013; De Wet, Du Plessis and Klopper, 2013; Viswanath & Ackerson, 2011) and even now it would be necessary to find out if the education variable holds true in determining access and comprehension of health-related messages.

2.4.2 Channels for Acquiring Health-related Knowledge

The introduction of myriad channels for accessing information has not translated into a shift in the channel preference of target audiences where the traditional media is discarded for the new media, for instance. Recent studies show that people rely on either the traditional or new media source for accessing, sharing and comprehension of health messages (Banke-Thomas, Kouraogo, Siribie, Taddese, & Mueller, 2013; De Wet, Du Plessis & Klopper, 2013). While De Wet, Du Plessis and Klopper (2013) found that HIV-positive patients and their families relied on the community for information and comprehension of HIV and AIDS-related messages, respondents who were found to be knowledgeable on Obstetric fistula in Burkina Faso got their information through radio and word-of-mouth (Banke-Thomas, Kouraogo, Siribie, Taddese, & Mueller, 2013).

In Ghana, Futa (2008) found that even though there were various channels used in creating awareness about obstetric fistula, radio and community sources were heavily relied upon by

respondents. Of the 210 community members interviewed, 61 (29%) of respondents who knew about the condition identified friends, family, healthcare providers and ‘Magazias’ (Community Women Leaders) as the sources of their knowledge (Futa, 2008). The internet, social networking sites and text messaging are sources which also aide accessing and sharing health-related messages for behavioural change as found by De Choudhury, Morris & White, n.d.; Cole-Lewis & Kershaw, 2010; Anduiza, Gallego & Jorba, 2012).

From the literature, there appears to be both traditional and new media sources for accessing and sharing health-related messages, which is not limited by geographical setting. The studies have failed to assess individuals’ disposition towards knowledge and information availability, access and motivation to seek such health information.

Obstetric fistula has received public attention since it was recognised some centuries ago. Studies by UNFPA (n.d.) and Engender Health (2004) reveal that while the condition has been eradicated in developed countries, developing and under-developed countries continue to experience obstetric fistula. General knowledge on the condition has been noted to be low in developing and under-developed countries, although it is a major factor in eradicating the condition (Futa, 2008; Banke-Thomas, Kouraogo, Siribie, Taddese, & Mueller, 2013). Warren and Mwangi’s (2008) study of four districts in Kenya however, found that community members knew about obstetric fistula, how it occurs and preventive measures, even though fistula victims and their husbands were found to be uneducated, and poor. Almost half the women interviewed could not read English or Kiswahili and a third of their husbands had never attended school

(Warren & Mwangi, 2008). Of the total population of women interviewed, 41% earned below US\$25 per month.

Studies on how members of a community become aware of obstetric fistula look at how they acquire this knowledge – through media channels, interpersonal sources, care-givers, which are all external cues. The studies appear not to find out how internal cues within individuals (such as perceived risk and susceptibility) can contribute to their actively seeking information on obstetric fistula. This study sought to bridge this gap by searching how perceived susceptibility and severity by women towards OF will make them seek information beneficial to their health.

2.4.3 Barriers to Behavioural Change

When health messages are narrow and not widened to target members of a society, a health intervention will likely fail as data by Futa (2008) demonstrated. Information, education and communication (IEC) activities for the prevention and management of obstetric fistula in the Savelugu-Nanton district of Ghana, as part of the Global Campaign to End Fistula by healthcare providers were found to be unsuccessful because messages were not targeted at community members. Data from the study revealed that men were not factored into the education programmes even though they decided where their pregnant wives should deliver. Various communication tools such as face-to-face, audio visuals, etc used in the campaigns were mainly for the education of pregnant women on complications of delivery at health facilities. Of the 210 community members interviewed on the choice of channels, 70 (33%) of the respondents preferred mass media and group communication channels, 29 (13.8%) favoured mass media,

group and interpersonal channels while 24 (11.4%) liked mass media, group communication and traditional communication networks.

In a related study, young women in a health district in Burkina Faso were found to rely on different channels to become aware of a health condition. Using the face-to-face interview technique to find out knowledge on OF among young women between 18-20 years in the rural and urban communities of the Boromo health district in Burkina Faso, 126 respondents (45.5%) attributed knowledge on OF to the media and 41.08% to word-of-mouth. Among different demographic populations and geographical communities individuals are likely to rely on a mix of channels that are appropriate for receiving and sharing information. Knowledge on the use of appropriate channel mix for receiving and sharing information can assist health communicators apply them appropriately in health interventions. Information sharing is expected to educate, entertain or create knowledge and in communicating disease prevention and management multiple channels may have to be employed in order to reach all target audiences to prevent knowledge gaps. The current study therefore sought to assess available channels for creating knowledge on obstetric fistula for their appropriateness and reduction in likely information gaps.

A study in Benin to identify barriers for condom-use found that knowledge about the transmission and prevention of the HIV epidemic did not necessarily translate into usage of the product, or for that matter, to behavioural change (Hounton, Carabin & Henderson, 2005). Using one of the assumptions of the Health Belief Model - barriers to behavioural change - Hounton, Carabin and Henderson (2005) sought to find out why systematic condom use was low and HIV prevalence was high, especially in rural areas despite campaigns on the awareness, prevention

and promotion of antiviral regimes. Of the 251 participants surveyed in the study areas, more females than males reported using condoms in their last occasional intercourse while 63% said they recognized people who were infected with HIV. Findings from the study indicated that in order for a behavioural change to take place there would be the need to not only implement awareness-creation programmes but also ones which highlight benefits of taking a recommended health action, while reducing factors that inhibit its usage. The research by Hounton, Carabin and Henderson (2005) focused mainly on perceived barriers in the HBM, leaving out other assumptions such as perceived susceptibility, benefits and barriers to behavioural change as used by Reiter, Brewer, Gottlieb, McRee and Smith (2009).

In their study of how parents' beliefs affected the use of HPV vaccination against cervical cancer by their daughters, based on the HBM, Reiter, Brewer, Gottlieb, McRee and Smith (2009) found that parents who perceived the effectiveness of HPV vaccine and those who had received a doctor's recommendation to get their daughters initiated reported vaccine initiation. The cross-sectional study which interviewed 899 parents of girls between 10 to 18 years in North Carolina also found that parents whose daughters had vaccinated had less fear of their children having cervical cancer. Those who had higher perceived barriers to obtaining HPV vaccine were less likely to let their daughters report for HPV vaccine initiation. Studies by Hounton, Carabin and Henderson (2005) and Reiter, Brewer, Gottlieb, McRee and Smith's (2009) study failed to address perceptions of susceptibility and severity; cues which can contribute to positive behavioural changes and accessing health information as the HBM posits. A study enumerating these two cues will, therefore provide data to support or reject existing knowledge on them.

2.4.4 Age as Factor for OF

According to Wilmoth (2008) the age cohort and parameters of a reproductive female is pegged 15 to 49 years. Research on OF has also found that females below 18 years and above 50 years are the most at risk of developing a fistula in the course of labour (WHO, 2012). Banke-Thomas et al (2013) in their research interviewed young women between 18 to 20 years within the rural and urban Boromo Health district, Burkina Faso, to assess their knowledge on obstetric fistula while a hospital-based study conducted in the West Pokot region of Kenya found that the mean age of women with fistula was 20.5years, ranging from 14 to 38 years (Warren and Mwangi, 2008). The study by Warren and Mwangi (2008) reaffirms other studies showing that the age of women at the time of pregnancy and delivery accounts for the risk of obstructed labour that can result in the development of a fistula (Futa, 2008; Genadry, 2012, Banke-Thomas et al, 2013). For the purpose of this study, the sample was intended to be inclusive enough to reflect the views of all females between 13 to 60 years, whether they were more or less at risk and whether they were infected or had been affected by the condition. It was expected that by selecting respondents from rural and urban sites and below and above the reproductive age, they could be assessed on the assumptions of the KGT.

2.4.5 Methods for Studying Health Knowledge and Acquisition

In research endeavour, the problem and expected outcome of the study determine the method to be used. While quantitative methods are good for testing hypothesis, observing cause and effects of occurrence and generalising findings, qualitative methods are helpful in observing subjects in their natural settings.

Futa (2008) and Banke-Thomas, Kouraogo, Siribie, Taddese & Mueller (2013) used quantitative studies to assess the impact of Information Education and Communication (IEC) activities of OF in the Savelugu-Nanton district of Ghana and the knowledge of young women on the condition in Burkina Faso. Although both studies (Futa, 2008; Banke-Thomas, Kouraogo, Siribie, Taddese & Mueller, 2013) found data to support their findings, Zheng and Anderson (2008, p.88) noted that the use of survey data to identify fistula patients was “challenging.” This could explain why Warren and Mwangi (2008) used a triangulated method to find out knowledge on the condition. The study used structured questionnaires to survey women who were living or had lived with obstetric fistula while community midwives were interviewed on the challenges they faced in providing maternal and newborn care from four districts in Kenya.

In order to reduce the challenges to be faced in using one method as against another and due to the sensitivity attached to victims of obstetric fistula, this study, following the Warren and Mwangi (2008) example, used a triangulated approach to assess people’s knowledge on the health condition, victims experiences and care-givers’ achievements and challenges in eradication efforts.

Cross-sectional studies are mostly used to compare a common variable between different locations. Cross-sectional studies were successfully used by Viswanath and Ackerson (2011) and Reiter, Brewer, Gottlieb, McRee and Smith (2009) both in the US and Banke-Thomas, Kouraogo, Siribie, Taddese and Mueller’s (2013) study in Burkina Faso.

In Banke-Thomas, Kouraogo, Siribie, Taddese and Mueller's (2013, p.3) study, for instance, respondents in the urban areas were found to be eight times more likely to become aware of fistula through mass media than their counterparts in rural areas. Of the total respondents interviewed, 47.6% of urban women and 24.1% of rural women were also found to be 'sufficiently informed' about the condition. Comparison of such nature are mostly possible through cross-sectional studies but in the course of searching for literature on cross-sectional studies in Ghana, there appear to be little studies, using this technique for health-related studies. This study therefore, made use of this procedure, to measure the awareness and channel preference of rural and urban women in Ghana for accessing health information.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter deals with the method used in gathering and analysing data for the study. It identifies and explains the sampling design and techniques for the study area and population, data collection instrument and analysis. A triangulated research approach, combining a survey and in-depth interviews were used to collect data.

3.1 Research Design

A survey questionnaire was administered to respondents to assess their knowledge on Obstetric fistula, channels used in assessing health information and the reasons for their selection and what they considered in using the particular channel(s).

The questionnaire technique was used for the study because it has been used successfully in Burkina Faso in studies to assess the prevalence of meningococcal carriage in rural and urban communities in Bobo-Dioulasso and the knowledge levels on Obstetric fistula between rural and urban women in the Boromo Health District (Banke-Thomas et al, 2013; Mueller, Yaro, Njanpop-Lafourcade, Drabo, Idohou et al, 2011). The questionnaires were predominantly close-ended. Open-ended ones were used to give respondents an opportunity to explain reasons for selecting some answers. The questionnaires were interviewer-administered to ensure inclusiveness of respondents – whether literate or not – and to ensure that where the use of the local Fanti language became necessary, the researcher was fairly consistent in her translation or explanations. Again, with interviewer-administered questionnaires, questions answered could be

collected immediately instead of having to return another time to get responses, which often tends to reduce response rates.

For the qualitative part of the study, in-depth interview was employed because the method helps in getting detailed information about the thoughts and behaviours of people. Boyce and Neale (2006, p.3) noted that in-depth interviews “give a complete picture of a situation and why it is so”. In view of this and the benefits of in-depth interviews to elicit more information, it was expected that more insight will be uncovered into the knowledge on OF in the course of sharing health information. A recorder, pen/pencil and a note pad were used to record responses and make notes on the interview process.

3.2 Profile of Study Area and Population

The Central Region is one of the 10 regions in Ghana occupying 9,826 square kilometres. The region has 20 administrative districts, with Cape Coast as its capital. The 2010 Population and Housing Census gives the population of the Central Region as 2,201,863, with about 63 per cent of the total population being rural (PHC, 2010). Two communities – Mankessim and Otum were selected for the purpose of this study.

Mankessim is a town in the Central Region located about 85 kilometres west of Accra, the capital city. It is part of the Mfantseman District, covering 612 square kilometres. The area was purposively chosen to represent the urban areas because, apart from its land size, it is one of the places in Ghana which has a facility dedicated to the diagnosis and treatment of obstetric fistula.

The Fistula Hospital of the Mercy Women's Reproductive and Child Health Centre (MWRCHC), undertakes surgical repairs for fistula patients from various parts of the country.

Otuam is a small fishing settlement 12 kilometres from Esuehyia Junction; off the Accra-Cape Coast road, with a population of about 7,000 people. Otuam was purposively selected to represent the rural area because it is one of the areas where educational and medical outreach services on obstetric fistula are conducted by personnel from the MWRCHC in Mankessim.

3.3 Sampling Design

This research is a descriptive cross-sectional one which sought to compare the knowledge of rural and urban women in the Central Region on Obstetric Fistula (OF) and the channels used in acquiring health information. A purposive sampling procedure was used to select a rural and an urban area in the study area. The skip interval method was used to identify respondents for the study.

The 2010 Population and Housing Census of Ghana (PHC, 2010) indicates that the Mfantseman district has a total population of 196,563; with 107,538 females. The district, which comprises 20 settlements, including Mankessim and Otuam, has a total of 48,304 households.

With the total number of settlements by the number of households, each settlement was estimated to have, at least 2,415 households. Mankessim has 13,970 females while Otuam has 2,570 females (PHC, 2010).

The skip interval method was used to identify respondents within households. The idea of using individual respondents to represent their household was based on the argument that communication research in Africa should be responsive to “the continent’s sub-group cultural norms” (Amoakohene, 2005, p.174). Tietaah (2013) also points out that individual opinions and attitudes in Africa and Ghana are a significant product of “communal decisions and responsibilities” (p.144). Many research institutions in Ghana including the Ghana Health Service, the Ghana Statistical Service, the Institute of Statistical, Social and Economic Research (ISSER), the Ghana Centre for Democratic Development (CDD-Ghana), routinely use household sampling methods in national surveys.

In this study, the specific steps used in identifying individuals were as follows. In both Otum and Mankessim, the major street was identified. Starting from the beginning of the town with the first household to the right of the street, the researcher entered every third household in Otum. A female of the age range defined for this study in Chapter one (i.e. 13-60 years) was approached and asked to be interviewed. If they did not consent, the very next household was visited until 25 respondents were enlisted. Then, crossing over to the other side of the road, the researcher repeated the process backward for another 25 respondents. Thus, at Otum the researcher entered into the first household from the Otum taxi rank and descended until she reached Mpo Ano, changed lanes and did same until she reached the Taxi rank, which served as the end point.

At Mankessim, the same process was followed – for another 25 households on each side of the major street. Specifically, at Mankessim, the main road which runs from Accra to the Mankessim

lorry station was used to divide the area. The researcher alighted at Ekumfi, which serves as entry into Mankessim and entered into the first household on her right and any other third household towards the lorry station, which served as the end point. At the end of the stretch, the researcher changed lanes to the left-hand side and entered into the first household on her left from the station to Asakafo Ama Ntem, which is the last area when leaving Mankessim for Accra.

This means that in all, 50 households were sampled for Mankessim and Otum each, and administered with questionnaires for the survey. A total of 100 questionnaires were, therefore, collected for analysis from these two areas.

For the qualitative method, in-depth interviews were conducted with two medical officers, two community health nurses (one from each of the study areas), an opinion leader in Mankessim and a fistula patient to provide further insight into the condition, its effects and the impact of educational campaigns.

3.4 Data Analysis

Data was analysed using descriptive statistics. This approach allows the researcher to organise the data in such a way as to give meaning, facilitate insight and be able to examine a phenomena from a variety of angles in order to understand more clearly what is being seen (Burns & Grove 2005). The data was entered into SPSS database program version 22.0. The findings from the survey were presented in the form of frequency counts, percentage and crosstabs. The researcher also used inferential statistics to see the association between the dependent and independent

variables. Chi-square test was used to measure the strength of associations between variables, at 95% confidence level. A $p\text{-value} < 0.05$ was considered to be statistically significant. The in-depth interviews were transcribed and analysed inductively to produce descriptive accounts of the experiences and observations of the medical practitioners, opinion leaders and OF victims on the condition.

CHAPTER FOUR

DATA ANALYSIS/ FINDINGS

4.0 Introduction

A total of 50 respondents each from Mankessim and Otum were sampled to answer on interviewer-administered questionnaire. There were various questions which sought to find out respondents' knowledge on obstetric fistula, their attitude towards people they knew had the condition and their general health-seeking information behaviour.

4.1 Demographic Characteristics of Respondents

Table 1: Age of Respondents

AGE	MANKESSIM		OTUAM	
	FREQUENCY	PERCENT (%)	FREQUENCY	PERCENT (%)
13-17	9	18	12	25
18-49	28	56	24	50
50-60	13	26	12	25
TOTAL	50	100	48	100

Source: field data, October 2014

Out of the 100 questionnaires answered, there were more people within the reproductive stage than the pre- or post- reproductive age bracket in both study areas. Out of the 50 respondents interviewed in Otum, half (50%) were between 18-49 years while a little more of that percentage (56%) were included in the Otum sample. Respondents between 50-60 years in Mankessim were 13, constituting 26% while their counterparts in Otum were a quarter (25%) of total figures collected, as shown in the table above.

Of the 50 respondents interviewed in the rural area, there was no one who had tertiary education or higher in Otum. Majority of the respondents in both Mankessim and Otum had had education only up to the Senior High School (SHS) level. Otum, for instance had a little more than two-thirds of respondents (76%) who had had school education up to second cycle level, while more than 50% of respondents in Mankessim had up to secondary education.

Generally, respondents from Mankessim were more educated than their counterparts in Otum, as shown in the table below. Out of the 50 respondents in Mankessim, 17 women (representing 34%) had completed tertiary education, with six (representing 16%) of them completing education up to the vocational/technical level.

Table 2: Educational Level of Respondents

EDUCATIONAL LEVEL	MANKESSIM		OTUAM	
	FREQUENCY	PERCENT (%)	FREQUENCY	PERCENT (%)
Primary	0	0	9	18
JHS	19	38	24	48
SHS	8	16	5	10
Voc./ tech.	6	12	6	12
Tertiary & above	17	34	0	0
None	0	0	6	12
Total	50	100	50	100

Source: field data, October 2014

On the question of occupation, there was an equal number of respondents in Mankessim who were either students or self-employed. In Otum however, majority of the respondents (68.9%) were self-employed. There was nobody among the 50 respondents in Otum who was in formal

employment as compared to Mankessim where 12 women, making up 25% of total figures, were employed.

Data from the Table below indicates that in Otum most women (i.e. close to 7 in 10 women) were self-employed while their counterparts in the urban area were employed in either a private, government or other venture.

Table 3: Occupation of Respondents

OCCUPATION	MANKESSIM		OTUAM	
	FREQUENCY	PERCENT (%)	FREQUENCY	PERCENT (%)
Student	16	33.3	10	22.2
Unemployed	2	4.2	4	8.9
Employed	12	25	-	-
Self-employed	15	31.3	31	68.9
Retired	3	6.2	-	-
Total	48	100	45	100

Source: field data, October 2014

Majority of respondents in both study areas did not earn any income. In Mankessim however, more respondents (21.7%) earned incomes above GH¢1,000 in a month, compared to Otum where nobody received monthly incomes up to GH¢1,000.

There were more people in Otum (27.9%) who earned less than GH¢100 in a month, compared to Mankessim, where only three women, representing 6.4% of total respondents earned below GH¢100, as shown in the Table below. From the data, it appears that residents in Otum are poor. Of the total respondents in Otum, close to 61% earned less than GH¢100 in a month, with 11.6% (five women) earning more than GH¢500. When these figures are compared with those in

Mankessim, it shows that twice as many women earned over GH¢500 in a month (29.3%), than in Otuaam.

Table 4: Monthly Income of Respondents

MONTHLY INCOME	MANKESSIM		OTUAM	
	FREQUENCY	PERCENT (%)	FREQUENCY	PERCENT (%)
Below 100	3	6.4	12	27.9
100-500	2	4.3	12	27.9
600-1000	14	29.3	5	11.6
OVER 1000	10	21.7	-	-
NO INCOME	18	38.5	14	32.6
TOTAL	47	100	43	100

Source: field data, October 2014

4.2 Differences in Knowledge between Rural and Urban Women

Considering that literature suggests that OF is a consequence of child-bearing, respondents were asked how many children, if any, they had. From data collected from both areas, Otuaam had more respondents (60%) having a child or more than Mankessim (44%).

Table 5: Number Having Child/Children

RESPONSE	MANKESSIM		OTUAM	
	FREQUENCY	PERCENT (%)	FREQUENCY	PERCENT (%)
YES	22	44	30	60
NO	28	56	20	40
TOTAL	50	100	50	100

Source: field data, October 2014

Table 6: Incidence of Complication in Delivery

RESPONSE	MANKESSIM		OTUAM	
	FREQUENCY	PERCENT (%)	FREQUENCY	PERCENT (%)
Yes	8	30.8	8	24.3
No	18	69.2	25	75.8
Total	26	100	33	100

Source: field data, October 2014

Of the total number of people in both communities who answered affirmatively to having children (Otuam, 30; Mankessim, 22, respectively), more than half of them had had normal delivery. In Otuam, eight (24.3%) of the respondents who had a child/children had had some form of complication during delivery. The same number in Mankessim (representing 30.8% of total respondents) had once had a labour-related complication as the table above shows. Majority of the complications enumerated by the respondents were mainly about caesarean sections and miscarriages.

Table 7: Knowledge on Obstetric Fistula

RESPONSE	MANKESSIM		OTUAM	
	FREQUENCY	PERCENT (%)	FREQUENCY	PERCENT (%)
Don't know/never heard of it	8	19.5	28	60.9
Very little	11	26.8	5	10.9
A defect from delayed labour	10	24.4	12	26.1
Birth complication where women leak urine/feaces after delivery	12	29.3	1	2.1
Total	41	100	46	100

Source: field data, October 2014

As shown in Table 7, even though more than half of respondents from both Mankessim and Otuam had at least one child (22, 44% and 30, 60% respectively), general knowledge on obstetric fistula was less than half. Of the total responses analysed for both communities, 40.2% had knowledge of the condition. In Otuam especially, 33 women (71.8%), representing close to two-thirds of total respondents had ‘No Idea’ or knew little about the disease condition while in Mankessim, 46% (19 women) were also in this category.

Out of the 50 respondents interviewed in Mankessim, 22 women (53.7%) said that they had heard or knew about obstetric fistula while 13 women (28.2%) in Otuam knew about the condition.

Table 8: Source of Information on Obstetric Fistula

SOURCE	MANKESSIM		OTUAM	
	FREQUENCY	PERCENT (%)	FREQUENCY	PERCENT (%)
Radio	12	30.8	11	61.1
Television	9	23.1	4	22.2
Internet	8	20.5	0	0
Healthcare providers	7	17.9	0	0
Inter-personal sources	2	5.1	3	16.7
TOTAL	39	100	6	100

Source: field data, October 2014

General responses from respondents who said they knew about obstetric fistula and its causes mostly mentioned the radio as the medium from which they obtained their information (30.8% in Mankessim, 61.1% in Otuam, respectively).

Apart from the respondents gaining their information on fistula from the traditional mass media sources, eight (8) persons, all in Mankessim, attributed their knowledge to the usage of the internet as the table above shows. Only a total of five of the respondents from both Mankessim and Otum said they acquired their knowledge on obstetric fistula through interpersonal sources.

4.3 Perceptions of OF and Health-seeking Behaviour

All respondents identified a source for accessing information on health. Most respondents in Mankessim (42%) got their information on health from more than two sources while one out of every 10 women interviewed in Otum had more than two sources for accessing and receiving their health information. About half of respondents in Otum (23 women) got their health information from a single source as shown in the table below.

In response to a follow-up question about the most preferred source for receiving health information, one of every two women interviewed selected radio as one of the sources for receiving or accessing their health information. Respondents said that radio was affordable, handy and could be used anywhere. Health service providers and interpersonal sources were the next popular ones selected by respondents for accessing health information.

Table 9: Sources of General Health Information

NUMBER OF SOURCES	MANKESSIM		OTUAM	
	FREQUENCY	PERCENT (%)	FREQUENCY	PERCENT (%)
One source	13	26	23	50
Two sources	16	32	18	39.1
More than two sources	21	42	5	10.9
Total	50	100	46	100

Source: field data, October 2014

When respondents were asked how often they looked for information on health from the sources they chose, 16 women in Mankessim, representing 34.8% said they looked for health information “very often” while half of that number in Otum (8, representing 58.3%) said it was “not often”. More people in Otum also answered that they rarely accessed health information than their colleagues in Mankessim (13 and 9, respectively).

Generally, responses from both study areas showed that most people do not actively look for information on their health or things related to health and may therefore make an effort only when there was the need. From the data shown in Table 10 below, 32.5% of respondents in Mankessim and 47.9% in Otum said they “look for information on health as and when the need arises.”

Table 10: Frequency of looking for information on health

RESPONSE	MANKESSIM		OTUAM	
	FREQUENCY	PERCENT (%)	FREQUENCY	PERCENT (%)
Very often	16	34.8	4	8.3
Not so often	6	13	8	16.7
As and when the need arises	15	32.6	23	47.9
Rarely	9	19.6	13	27.1
Total	46	100	48	100

Source: field data, October 2014

Even though responses showed that the majority of people did not look for information on health often, cost was the least reason given for using their preferred channel. From the total responses only seven individuals, all in Mankessim, said they considered the cost of using their preferred channel for accessing health information. Respondents were more concerned with the ability to

get to use their preferred channel and the ease of using it; 35 women in Mankessim (representing 35.7%) and 37 women in Otum (representing 40%) said that in using their preferred channel they mostly consider its ease of uses and accessibility.

Respondents were generally less concerned with whether their preferred channel was credible or not when using it to gain information on health. From both communities, only 16.8% of the women said they considered issues of credibility in selecting a channel to acquire health information.

In Mankessim, 21 women preferred channel because it was accessible while 17 of their counterparts in Otum, representing 37.8% considered the convenience their channel offered in using it to look for information on health as the table below shows.

Table 11: Factors considered in using the preferred channel

FACTORS	MANKESSIM		OTUAM	
	FREQUENCY	PERCENT (%)	FREQUENCY	PERCENT (%)
Cost	7	14	-	-
Convenience	14	28	20	44.5
Credibility	8	16	8	17.7
Accessibility	21	42	17	37.8
Total	50	100	45	100

Source: field data, October 2014

The majority of respondents in both Mankessim and Otum (66% and 64% respectively) said they did not know anybody who had or had had Obstetric fistula. In Mankessim, 17 respondents however, said they knew somebody who had or had had the condition while 10 women in Otum

also answered affirmatively as the table below shows. Respondents in Otuam who knew somebody with the condition had a different name other than ‘obstetric fistula’ to describe it. In Otuam, eight people were unsure if they knew somebody who had or had once had the condition.

Table 12: Awareness of others having obstetric fistula

RESPONSE	MANKESSIM		OTUAM	
	FREQUENCY	PERCENT (%)	FREQUENCY	PERCENT (%)
Yes	17	34	10	20
No	33	66	32	64
Don't know	0	0	8	16
Total	50	100	50	100

Source: field data, October 2014

More than half of respondents from both study areas (67.6%) felt that victims of obstetric fistula needed support than to be treated with scorn. From data collected, a total of 15 women from Mankessim and Otuam felt victims of OF were dirty. In this regard, however there were twice as many women expressing that sentiment from Otuam (11) as those in Mankessim (5). No respondent in Otuam however, felt that women who developed a fistula were outcasts, compared to five (5) individuals from Mankessim who thought as such. The results from both areas show that most women believe that their fellow women who become victims of obstetric fistula should be supported, rather than treated as outcasts, dirty or any other negative emotion.

Table 13: Feelings about people with obstetric fistula

Feeling	MANKESSIM		OTUAM	
	FREQUENCY	PERCENT (%)	FREQUENCY	PERCENT (%)
As an outcast	5	10.2	-	-
Dirty	4	8.2	11	22
People needing support	36	73.5	31	62
Other	5	10.2	8	16
Total	49	100	50	100

Source: field data, October 2014

When respondents were asked about their perception on becoming a fistula victim, prevention and treatment of the condition, majority of them agreed that they were at risk of getting a fistula and that the disease condition was harmful. In Mankessim, 15 of the respondents strongly agreed that they were at risk of getting obstetric fistula and that the condition is harmful. Of the total respondents in this area four of every 10 of them strongly agreed that the disease could be prevented and treated (Table 14a).

Table 14a: Perceptions of Respondents on Obstetric Fistula in Mankessim

PERCEPTION	MANKESSIM					
	STRONGLY DISAGREE (%)	DISAGREE (%)	DON'T KNOW (%)	AGREE (%)	STRONGLY AGREE (%)	TOTAL (%)
I am at risk of getting obst. Fist.	14 (29.2)	3 (6.3)	11 (22.9)	5 (10.4)	15 (31.2)	48 (100)
Obst. Fist. Is harmful to me	11 (22.9)	5 (10.4)	8 (16.7)	9 (18.8)	15 (68.8)	48 (100)
Obst. Fist. Can be prevented	1 (2.1)	5 (10.4)	10 (20.8)	12 (25)	20 (41.7)	48 (100)
Obst. Fist. Can be treated	1 (2.0)	3 (6.1)	12 (24.5)	12 (24.5)	21 (42.9)	49 (100)

Source: field data, October 2014

In Otuam, four out of every 10 women interviewed (46%) did not know if they were at risk of getting obstetric fistula but 18% of them strongly agreed that the disease was harmful to them. From the 50 women interviewed, four out of every 10 them also strongly agreed that obstetric fistula can be prevented and treated as shown in Table 14b below.

Table 14b: Perceptions of Respondents on Obstetric Fistula in Otuam

PERCEPTION	OTUAM					
	STRONGLY DISAGREE (%)	DISAGREE (%)	DON'T KNOW (%)	AGREE (%)	STRONGLY AGREE (%)	TOTAL (%)
I am at risk of getting obst. Fist.	8 (16.0)	3 (6.0)	23 (46.0)	5 (10.0)	11 (22.0)	50 (100)
Obst. Fist. Is harmful to me	9 (18.0)	0 (0.0)	11 (22.0)	11 (22.0)	19 (38)	50 (100)
Obst. Fist. Can be prevented	0 (0.0)	4 (8.0)	11 (28.0)	14 (28.0)	21 (42.0)	50 (100)
Obst. Fist. Can be treated	0 (0.0)	2 (4.0)	7 (14.0)	19 (38.0)	22 (44.0)	50 (100)

Source: field data, October 2014

Most people said they would prefer the radio to be used in giving them information on obstetric fistula. In Mankessim, close to half of the respondents (44.9%), compared to 35.6% in Otuam, preferred receiving information through this medium. Respondents who selected the radio as the most preferred channel for disseminating information on obstetric fistula said it was portable, less costly, could be used anywhere and one can listen to it while doing other activities.

The next major source selected by respondents from both study areas were health service providers (29.7% of total responses). Respondents who selected this source believed that health service providers are professionals who can better educate people than other sources since they

know and understand the condition. In Mankessim, 10 women (20.4%) wanted healthcare providers to be used in giving out information on obstetric fistula. Television as a source was mentioned by more than a quarter of the respondents (26.5%). Surprisingly, only a little over five in 20 (62%) preferred interpersonal sources. Of the total respondents, only one person selected the internet as a preferred source for receiving information on obstetric fistula.

In Otum, 40% of the women interviewed selected healthcare providers; one of every ten respondents chose interpersonal sources and 8.9% selected television as sources for giving out and receiving information by the public on obstetric fistula as shown in Table 15 below.

Table 15: Preferred source for Information on Obstetric Fistula

SOURCE	MANKESSIM		OTUAM	
	FREQUENCY	PERCENT (%)	FREQUENCY	PERCENT (%)
Radio	22	44.9	16	35.6
Television	13	26.5	4	8.9
Internet	1	2.0	0	0
Healthcare providers	10	20.4	18	40
Inter-personal sources	3	6.2	5	11.1
Community sources	0	0	2	4.4
Total	49	100	45	100

Source: field data, October 2014

4.4 Efforts at Eradicating Obstetric Fistula

Table 16: Awareness about Obstetric Fistula

RESPONSE	MANKESSIM		OTUAM	
	FREQUENCY	PERCENT (%)	FREQUENCY	PERCENT (%)
Yes	10	20	14	28.6
No	40	80	33	67.3
Don't know	0	0	2	4.1
Total	50	100	49	100

Source: field data, October 2014

On the question of whether there was enough awareness on obstetric fistula, more than half of total responses (67.3%) showed that knowledge on it was very low. Of every 10 respondents interviewed in Mankessim, eight of them answered 'No' while close to seven of every tenth woman interviewed in Otum also felt that awareness on the disease condition was not enough. Respondents suggested that there was the need for more education of the public by health personnel and other stakeholders, through the mass media and other sources, face-to-face and community interaction, to create more awareness.

For respondents who said there was enough awareness on fistula, 10 people (representing 20%) in Mankessim answered in the affirmative while 28.6% of respondents interviewed in Otum said 'Yes' to the same question. In Otum, two of the women interviewed were however, uncertain if there was enough awareness or otherwise on Obstetric fistula.

Data collected on the issue of awareness on obstetric fistula therefore shows that most people are not aware and there is the need for awareness-creation activities to be undertaken to reverse this trend if the disease condition is to be eradicated in the study areas, as the table above shows.

Table 17: Eradication of Obstetric Fistula in Ghana

RESPONSE	MANKESSIM		OTUAM	
	FREQUENCY	PERCENT (%)	FREQUENCY	PERCENT (%)
Yes	39	78.0	30	60.0
No	3	6.0	4	8.0
Don't know	8	16.0	16	32.0
Total	50	100	50	100

Source: field data, October 2014

When respondents were asked if obstetric fistula can be eradicated in Ghana, more than half of total responses from both areas (69%) were optimistic that it was possible for the disease condition to be a thing of the past in the country. Respondents observed that if more awareness campaigns were undertaken, more health personnel and facilities were established and the mass media was used in educational campaigns, obstetric fistula can be eradicated in Ghana as other developed countries had done. From the total number of women interviewed 78% of them from Mankessim and 60% in Otum, all answered in the affirmative while 7% were pessimistic. Ironically, more of the respondents in both study areas could not decide whether Ghana was capable of eradicating obstetric fistula or otherwise. Results from Table 18 above show that even though most people believed there was not enough awareness on obstetric fistula, they were optimistic that obstetric fistula could be eradicated from Ghana.

4.5 Relationship between Socio-economic Variables and Knowledge of Obstetric Fistula

Results from the data showed that there was no relationship between one's age, occupation, or level of income on one's knowledge of obstetric fistula. A strong relationship was however, found to be present between one's level of education and knowledge on obstetric fistula ($p < 0.041$). Data collected revealed that respondents who had education up to the primary level

were less likely to know about obstetric fistula than those who had been educated up to tertiary or vocational/technical level.

A relationship could not be established between one's level of income ($p>0.432$) and knowledge on obstetric fistula. This finding lends credence to the low frequency of respondents who selected "Cost" as a consideration in choosing their preferred channel as was found in Table 14. One's occupation was also found to be an unlikely determinant of whether one had knowledge of obstetric fistula or otherwise ($p>0.127$).

Table 18: Relationship between socio-economic variables and knowledge of OF

Socio-economic Characteristics	Frequency	Percentage (%)	Chi-square	p-value
Age Distribution of Respondents				
13-17	21	21.4	7.063	0.424
18-49	52	53.1		
50-60	25	25.5		
Education				
No Education	6	6.0	27.763	0.041
Primary	9	9.0		
JHS	23	43.0		
SHS	13	13.0		
Voc/Tech	12	12.0		
Tertiary	17	17.0		
Occupation				
Student	26	28.0	19.674	0.127
Unemployed	6	6.5		
Employed	12	12.9		
Self-employed	46	49.5		
Retired	3	3.2		
Monthly income				
Below 100	15	16.7	23.241	0.432
100-500	14	15.6		
600-1000	19	21.1		
Over 1000	10	11.1		
No Income	32	35.5		

Source: field data, October 2014

Table 19: Relationship between knowledge on OF and area of residence

KNOWLEDGE OF OBST. FIST.	AREA		
	OTUAM	MANKESSIM	TOTAL
Never heard of it/Don't know	28 (77.8%)	8 (22.2%)	36 (100%)
Very little	5 (31.3%)	11 (68.7%)	16 (100%)
A defect from delayed labour	12 (54.5%)	10 (45.5%)	22 (100%)
Birth complication	1 (7.7%)	12 (92.3%)	13 (100%)
Total	46 (52.8%)	41 (47.2%)	87 (100%)

Source: field data, October 2014

 $\chi^2 = 12.152$ $p < 0.01$ *

Data from the Table above showed a significant relationship ($p < 0.01$) between knowledge on obstetric fistula and where one resides, that is, whether one is from a rural or an urban area. A gap was therefore found to exist in knowledge on obstetric fistula. Women from Mankessim were more likely to know about the disease condition than their colleagues in Otum, who were less likely to know.

This study also sought to find out if respondents who perceived obstetric fistula as severe were also likely to think that they could become victims. Results from Table 20 below showed that there was a significant relationship between one's perceived severity and susceptibility to the disease condition. With a p-value less than the required level of 0.05 ($p < 0.04$), respondents who perceived obstetric fistula to be severe were more likely to also perceive themselves at risk of becoming a victim.

Table 20: Relationship between perceived severity and susceptibility to OF

PERCEIVED SEVERITY	SUSCEPTIBILITY					Total (%)
	Strongly disagree (%)	Disagree (%)	Don't know (%)	Agree (%)	Strongly agree (%)	
Strongly disagree	8 (50.0)	0 (0.0)	4 (25.0)	0 (0.0)	4 (25.0)	16 (100.0)
Disagree	5 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	5 (100.0)
Don't know	6 (28.6)	0 (0.0)	10 (47.6)	0 (0.0)	5 (23.8)	21 (100.0)
Agree	7 (29.2)	3 (12.5)	6 (25.0)	3 (12.5)	5 (20.8)	24 (100.0)
Strongly agree	3 (10.3)	3 (10.3)	7 (24.1)	5 (17.2)	9 (38.1)	29 (100.0)
Total	29 (30.5)	6 (6.3)	27 (28.4)	8 (8.4)	23 (24.2)	95 (100.0)

Source: field data, October 2014

 $\chi^2 = 23.876$ $p < 0.042$ *

Analysis from data collected failed to establish any relationship between perceived severity and accessing health information. Respondents who perceived obstetric fistula as severe were less likely to seek information on it. Results from the table below shows that there is no significant relationship between one's perceived severity and accessing health information ($p > 0.217$).

Table 21: Relationship between perceived severity and accessing health information

Perceived Severity	Accessing health information				
	Very often (%)	Not so often (%)	As and when needed (%)	Rarely (%)	Total (%)
Strongly disagree	2 (12.5)	2 (12.5)	6 (37.5)	6 (37.5)	16 (100.0)
Disagree	5 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)	5 (100.0)
Don't know	0 (0.0)	2 (11.1)	9 (50.0)	7 (38.9)	18 (100.0)
Agree	2 (11.1)	6 (33.3)	8 (44.4)	2 (11.1)	18 (100.0)
Strongly agree	8 (29.6)	2 (7.4)	10 (37.0)	7 (25.9)	27 (100.0)
Total	17 (20.2)	12 (14.3)	33 (39.3)	22 (26.2)	84 (100.0)

Source: field data, October 2014

 $\chi^2 = 16.546$ $p > 0.217$ *

4.6 Analysis of In-depth Interviews

As part of this study, in-depth interviews were conducted with five persons; two Medical Officers, two Community health nurses (one from each study area), an opinion leader at Mankessim and a fistula patient were interviewed in-depth. These respondents for the in-depth interviews were purposively selected because they were involved in obstetric fistula either in its treatment, advocacy or as a victim. They all answered questions which focused on knowledge of the condition, effects on its victims, communication strategies used in education and in-roads made in its eradication efforts.

The first interviewee was a professor in Obstetric and Gyneacology in Ghana who was also one of the pioneers in the surgical operation and rehabilitation of fistula patients in Ghana. The second medical officer was also a Gyneacology doctor, specialising in Gynea-Urology. Both

medical officers were members of the Fistula Outreach team in Ghana which went to some regions in the country, including the Central Region, which has a facility for fistula repair. For the nurses, both were Community health nurses who went into areas within the Central Region to educate women on their reproductive health. The personnel had been actively involved in going to various areas within the Mfantseman District of the Central Region for some years now to educate and enlist women found to have a fistula, for surgery.

A female opinion leader was also interviewed on educational activities being undertaken to ensure that women were aware of this condition and adopted positive behaviours in order to eradicate it from Ghana. The opinion leader, who was also a queenmother in the Central Region had been closely related to educating women about fistula, enlisting victims and assisting in their rehabilitation into society after treatment.

In order to locate OF patients for in-depth interview, the researcher joined a medical outreach team in a prior visit to the communities. Although several patients were identified, only one of them consented to be interviewed. She was interviewed on how she became a victim, her perception of the condition before and after treatment, and society's attitude towards her, as a victim.

4.7 Communication Strategies in Obstetric Fistula Education

From the interviews, it emerged that face-to-face and group communications were the main channels through which women were educated about the condition in the Central Region. The Opinion leader, for instance, had been using her status as a queenmother to educate her subjects

and fellow queenmothers at community gatherings. The community health nurses also said they went into the homes of residents and talked to women about their reproductive health and obstetric fistula mostly on one-on-one or group basis.

It emerged that the major mass communication tool used in the education was radio. Radio, for instance, was used to inform listeners about the obstetric fistula especially when the Fistula Outreach team were going to the Central Region to perform repair surgeries for victims. Television and newspaper was seldom used but in instances where television was used for educational campaigns, it was on Adom TV, a channel which only viewers with a satellite dish had access to. A local radio station in Mankessim (Obrempong Fm) is used to inform the public about free fistula surgeries whenever the fistula team were coming over.

No local venue-based media such as visual or audio recordings, drama or slides, were used by health personnel to aid in the education of women on fistula. This finding is similar to the study conducted by Futa (2008) in the Savelugu-Nanton district to assess the effectiveness of information, education and communication activities in creating knowledge on obstetric fistula, which also found then, that healthcare providers did not have audio-visual materials to educate women.

4.11 General Knowledge on Obstetric Fistula

Depending on the person interviewed, different answers were given for the causes of obstetric fistula. The medical officers, community health nurses and the queenmother mentioned “delayed labour”, “height and age of pregnant woman” and “weight of the baby”, as causal factors. On the

other hand, the fistula patient attributed spirituality, “cursed”, “bewitched”, especially before she received treatment and education. After some education she changed her words to echo that of the other respondents. The prevalent feeling from the interviews was that there were substantial members of the public who were unaware of the condition and attributed its occurrence to superstitious beliefs. All interviewees therefore agreed that even though much educational campaigns had been undertaken to create awareness about obstetric fistula more needed to be done. The queenmother expressed amazement at the seeming lack of knowledge on OF due to the questions fellow queenmothers asked during an educational session on obstetric fistula in the Central Region. The interviewee was of the view that the group should have been aware of the condition. The community health nurses strongly believed that manpower increment would enhance visits especially for people in remote areas where fistula is more likely to occur.

4.12 Effects of OF

Interviewees gave various illustrations of obstetric fistula on victims and society’s attitude towards it and its victims. Some of the examples have been captured below;

4.9.0 Examples of Effects of OF

- “With time patients accept the condition as faith; some, having lived with it for years.” (O & G Professor)
- “Society sees them as unfriendly but the OF victims are protecting themselves from the eventual looks they will receive when they come close to people due to the foul smell on them.” (Community health nurse, Mankessim)
- “I thought my husband’s family had put a curse on me because I did not want to marry their son” (Fistula patient)
- “Before treatment, they look defeated and shy but afterwards they begin to have hope” (Gyneacologist)
- “People have offered medications, herbs and people they felt can heal the condition” (Fistula patient)
- “My friends and family have been supportive” (Fistula patient)

4.13 **Eradication Efforts**

Responses from interviewees showed that stakeholders visited people in their homes, health facilities, churches, markets, and used every opportunity to create awareness on obstetric fistula in the Central Region. The Professor in Obstetrics and Gynaecology said gynaecological doctors from various teaching hospitals in the country had formed a fistula outreach team, which visited selected health facilities throughout Ghana to surgically repair fistula patients at no cost to the victims. According to the two community health nurses interviewed, they recruited fistula victims through their visits, information from people and contact with health facilities where patients presented the condition, with a view to treat and rehabilitate them back into society.

Such activities being undertaken by various stakeholders ensured that even if most people did not know the name of the condition (Obstetric Fistula), they were aware of how a fistula manifests. Interviewees also believed that such activities had also ensured that some members of the society also realized the need to visit a health facility during pregnancy and especially at labour.

All the respondents were optimistic that obstetric fistula can be eradicated in Ghana but agreed that there was the need for more educational campaigns to be undertaken to reach this target. Approaches to this education were however varied. The health personnel were consistent on the view that there was the need to establish more health facilities especially in remote areas and make it less expensive. They also felt that since the legal age for voting is 18 years, there is the need to make the legal age for marriage or sexual consent the same. They identified females who became pregnant before attaining 18 years as more likely to develop a fistula if their labour delayed unduly without skilled attendance or surgical operation. Their concerns reflected those

of the WHO, UNFPA and other literature which attests that girls who married at an early stage or became pregnant were likely to develop a fistula.

At Mankessim, the community health nurse noted that there were no fliers, audio or video recordings used in educating women on obstetric fistula and as soon as practicable, there is the need to get such items to aid in awareness-creation ventures. The interview respondents were of a common view that such items can help in explaining the condition better and ensure that people understand what it is, how it occurs and how to prevent it. The community health nurse in Otum cited that some people wrongly referred to the condition as ‘Njusokrobo’ (to wit, bed-wetting) and revealed that a resident in a village had once reported the sister who was a bed-wetter to them thinking she had a fistula based on the education the resident had received. With the educational aids to give visual description of what the resident had heard, this mishap might have been avoided.

The two medical officers, the community health nurse at Mankessim and the queenmother felt that treated victims should be recruited as advocates, as they could serve as testimony for treatment measures and also they could better educate such victims, having been one of them in the past. The fistula patient and the community health nurse at Otum however disagreed. They each felt that there is stigma attached to the condition and these advocates could be stigmatised or victims might not even open up to them or reveal their identity to them. It was suggested that it would be more effective for healthcare providers to speak to people on a one-on-one basis for now, with time, other activities can be undertaken when more awareness had been created about the condition.

All interviewees agreed that mass media platforms, especially local ones, could be used actively in awareness-creation and eradication efforts. The queenmother for instance, recounted how a fistula victim called on her for assistance after she had heard her speak about the condition on Adom TV (a station on the Multi TV digital television channel).

4.10.0 Stakeholder Recommendations for Educational Campaigns

1. Establish more healthcare facilities and make treatment affordable (O & G Professor)
2. Train/recruit more healthcare personnel for treatment and education (Community health nurses)
3. Treated victims to serve as advocates (Queenmother)
4. Production on print, audio and visual aids for education (Community health nurse, Mankessim)
5. Usage of one-on-one interaction, mass media platforms (Fistula patient)

CHAPTER FIVE

CONCLUSION

5.0 Introduction

This study was motivated by findings from a cross-sectional study undertaken in Burkina Faso. The study found that rural women were unlikely to have knowledge on obstetric fistula than their colleagues in the urban areas (Banke-Thomas, Kouraogo, Siribie, Taddese & Mueller, 2013). The current study therefore tried to find out if the same evidence would hold true in Ghana, in addition to finding out cues that will make people access health messages and the channels they use. Clinical personnel, opinion leaders and a fistula patient were also interviewed to gain insight into the communication strategies used in educational campaigns and eradication efforts. The chapter discusses the implications of the findings reported in Chapter 4, especially in relation to the research questions/ hypothesis formulated for the study; and in the light of the theories and related studies reviewed in earlier chapters.

5.1 Implications of Hypothesis Testing

In the course of searching for literature on knowledge of obstetric fistula in Ghana, there appeared to be little on knowledge acquisition. There was also limited literature which identified channels for acquiring information on the condition and what motivates people to use them. The Central Region, which has a clinical facility dedicated to the treatment of fistula victims, was selected and knowledge of women resident in the rural and urban areas was assessed. In order to guide the search for data for the study the researcher hypothesised that:

1. There were likely to be differences in knowledge on Obstetric Fistula between rural and urban women in Ghana

2. Perceived threat of having the disease condition increases the likelihood of seeking health information and adopting a positive behaviour

The objective was to therefore find out:

- the attitude of women towards the condition;
- whether their socio-economic status affects their access to health information;
- the communication strategies being used by health providers to educate rural and urban women on the condition;
- And whether perceptions of severity and susceptibility to obstetric fistula can affect accessing health information.

A triangulated approach was used, involving a survey and in-depth interviews. For the survey, questionnaires were administered to women in a rural area (Otum) and an urban area (Mankessim). The questionnaire centred mainly on issues of:

- Access to health information message and attitudes towards it
- Knowledge on obstetric fistula and how it was received
- Perceptions about obstetric fistula and whether respondents felt they could become a victim

For the in-depth interviews four health personnel, an opinion leader and a fistula victim were interviewed to find out:

- The communication strategies being used in education efforts
- Effects of the condition on victims and
- Eradication efforts

5.2 Summary of Findings

5.2.0 Residence as a Determinant of Knowledge and Information on OF

Results from the study revealed a gap in knowledge between rural and urban women on obstetric fistula. While 53.7% of respondents in Mankessim (urban area) knew about the condition, only 28.2% of their colleagues in Otuam (rural area) knew of it. This finding corroborates the findings of an earlier study by Banke-Thomas, Kouraogo, Siribie, Taddese and Mueller (2013) in Burkina Faso. A significant relationship ($p < 0.01$) was found between one's residence and knowledge on OF. Women from Mankessim were found to be more likely to have knowledge about the disease condition than women in Otuam. The KGT suggests that as information is introduced into society through various media channels, people with higher socio-economic status, among other factors, are more likely to receive their information quicker than others (Tichenor & Donohue, 1970). With evidence from this study, stakeholders, when undertaking awareness-creation campaigns will need to increase messages sent to people in rural areas than those in the urban areas to bridge the information gap that exists between them. This will ensure that residents in both areas will be knowledgeable about the disease condition.

5.2.1 Education as a determinant of Knowledge and Information on OF

The KGT identifies education as a cue which results in information gaps among members of a population in the course of distributing messages. In the current study, there was evidence to corroborate this assertion as a significant relationship ($p < 0.041$) was found between one's level of education and knowledge on OF. Education enhances an individual's exposure to mass media channels, level of understanding of messages and interpersonal communication as studies by

Banke-Thomas et al (2013), De Wet, Du Plessis and Klopper (2013), Hazavehei, Taghdisi and Saidi (2007) and Viswanath and Ackerson (2011) had all found.

Based on findings from the study, education can assist in determining individuals' belief of a health message and ultimately, their undertaking positive behaviours to ensure OF eradication in Ghana. Results from the experimental study by Hazavehei, Taghdisi and Saidi (2007) in Gramdsar, Iran, for instance, confirms the impact of education in creating knowledge as the current study undertaken at Mankessim and Otuam in the Central Region of Ghana also found.

5.2.2 Health Belief/Perception and Inclination to Seek Health Information

The second hypothesis of the study suggested a relationship between perceptions of susceptibility and severity to obstetric fistula and accessing health information. This suggestion was made in view of findings from Vermaas and Wijngaert's (2010) study which stated that health information-seeking behaviour of individuals is due to a belief that they may be vulnerable to the disease and will, therefore, seek information in order to prevent its occurrence. The KGT and HBM were used to ascertain if respondents' health beliefs on OF translated into accessing information on it.

Generally, respondents surveyed were found to have more than one source for accessing and receiving their health information (74% in Mankessim and 50% in Otuam). It was found that they did not actively look for health messages on a regular basis even though cost was not a factor for this apathetic attitude. Less than a quarter of total respondents from both areas identified cost as a factor in accessing their preferred channel. For every 10 women interviewed

in Mankessim and Otum, six were found to have more than one channel for accessing information.

On respondents' beliefs, a strong relationship ($p < 0.04$) was found between perceptions of severity and susceptibility to OF. Women in Mankessim and Otum who perceived OF as severe also perceived themselves at risk of becoming a victim as the HBM asserts. A weak relationship ($p > 0.217$) was, however, found between these perceptions and accessing of health information on OF by respondents. There was found to be no relationship between these perceptions and accessing health information. Therefore, it is likely that even if an individual sees obstetric fistula as harmful and risky to her, these perceptions may not translate into the individual seeking information on it. This finding implies that for individuals to seek information on OF they may need an additional element or cue to action (Rosenstock (1966), to translate their beliefs into seeking information on it. Perceiving OF as severe or risky alone is not enough to predispose an individual to seek information on it in order to undertake a recommended behavioural change.

5.2.3 Awareness-creation and Future Campaigns

On the strategies used in awareness-creation efforts for women in the rural and urban areas, there were no specific differences found. Both the in-depth interviews and survey conducted revealed that interpersonal communication and radio were mostly used in informing people about OF in Mankessim and Otum. Television was used in awareness-creation activities, even though it was not as high as the two sources stated earlier. It was found that there were no print, audio or visual materials to aid care-givers and stakeholders in public educational campaigns. There is the need to have these educational aids as soon as possible to enhance awareness-creation efforts.

5.2.4 Effects of OF and Eradication Efforts

Available literature on OF states that most women affected by this condition are stigmatised and treated poorly by family, friends and society in general. The WHO (2012) and Info Reports (2004) note that OF victims may be described as adulterers, cursed by the gods, among others. Care-givers who were interviewed in-depth said most OF victims kept to themselves very often for fear of public stigmatisation and also had a lack of confidence in themselves especially before a surgical procedure was done to repair the hole. Responses from the survey however, showed that majority of the women believed that OF victims should be supported rather than treated with any negative emotion. The fistula patient interviewed also noted the support she had received from family and friends when she became a victim, even though she had negative perceptions on how she acquired the condition. From the survey and in-depth interviews conducted, respondents were unanimous in their belief that OF could be eradicated in Ghana.

The responses from this study imply that different individuals may view OF and its victims differently but most people believe that it can be eradicated. There is therefore the need to fashion out messages which will address various audiences adequately to reduce negative perceptions while increasing positive ones to enhance eradication efforts.

5.3 Limitations of Study

This research was limited by the total number of respondents sampled for the quantitative and qualitative data. The time allotted for the study and financial constraints prevented the researcher from increasing the population for the study. At the same time, it was difficult to secure the consent and participation of OF victims, on account principally of the stigma that persists about

the condition. It is recommended that the same research is undertaken in future but with a larger sample size and possibly involving a wider (national) population.

Responses from healthcare providers in the in-depth interview suggested that certain policies in Ghana could affect eradication efforts. The Professor in Obstetrics and Gynecology and a member of the fistula team, for instance, noted that in Ghana the legal age for sexual consent is 16 years which is detrimental to eradication of OF. He said females who conceived below 18 years were more at risk of getting OF if their delivery was delayed unduly. Increasing the legal age for sexual consent to 18 years, he said, would ensure that the number of females below the reproductive age who get pregnant is reduced. Again, the study found that there was no local name for obstetric fistula and this was hampering educational efforts. During the survey, the researcher found that some respondents knew the disease condition even though they did not know its name as “obstetric fistula”. This observation was confirmed by one of the community health nurses interviewed who said OF was wrongly referred to by some local people as ‘Njusokrobo’. It would be interesting to undertake further studies to verify if these observations can affect awareness-creation and eradication of obstetric fistula in Ghana.

5.4 Recommendations

5.4.0 Localising Obstetric Fistula

Responses from questionnaires administered to inhabitants in the study areas showed that even though most people knew about the condition they did not know it was called ‘Obstetric Fistula’. When respondents were told how the condition manifested itself, it was realised that they knew what it was. Most people referred to it as ‘Njusokrobo’. Educational efforts should use local

languages more and there is the need to have a local name for obstetric fistula to make its education simpler and easier for people to understand and internalise.

Data analysed for this study showed a significant relationship between one's educational level and knowledge on obstetric fistula. Majority of respondents surveyed had completed school up to the JHS level with a few, going to school up to the tertiary level. It is recommended that educational campaigns be directed towards such institutions, at all levels but with target towards the JHS level and higher. This, it is envisaged, will ensure that more people become aware of the condition and in turn educate others.

Finally, the relevant policy (ministries, departments, agencies) and regulatory (Parliament, Attorney General's Department) as well as human rights NGOs should collaborate with the health education units in Ghana. Such collaboration would improve the education and advocacy efforts around the issues of public awareness and legislation on the legal age for sexual consent and marriage.

APPENDIX I

QUESTIONNAIRE FOR COMMUNITY MEMBERS

This survey is being carried out by a student of the School of Communication Studies as part of a thesis for the award of a Masters degree in Communication Studies. The study is being undertaken to find out women’s knowledge on Obstetric fistula and factors that inform their selection of a channel for health information.

Your responses will be strictly confidential and will assist in giving empirical evidence to the level of knowledge on Obstetric fistula and future interventions needed to eradicate it from Ghana.

The interview will take less than an hour of your time and you will be required to answer the questions while the interviewer enters your response.

Do I have your permission to begin the interview?

1) Are you a resident here?

- a) Yes b) No

2) If ‘No’, then, what are you doing here

- a) I work here c) I school here d) For business e) Other (Please state).....

3) Do you have a child/ children?

- a) Yes b) No (If ‘No’ go to Question 5)

4) Have you had any complication associated with delivery

- a) Yes b) No

4ii) If ‘Yes’ what was it? Please state.

.....
.....

5i) What beliefs and practices about pregnancy do you know about which you can share with me?

.....
.....

ii) How did you get to know this?

- a) From Personal experience b) from older women c) from health educator
- d) From the media e) other (specify):

6) What complication(s) associated with delivery can you immediately recall?

- a) Death of baby/mother b) death of both c) bleeding
- e) (convulsion) eclampsia f) other (please specify)

7) Where do you get your information on health from?

- a) Radio b) Television c) Newspapers d) Internet e) Mobile phone
- f) Hospital and Healthcare providers g) Family and Friends
- h) Others (Specify):

8) How often do you look for information on health?

- a) Once a year b) about twice c) very often d) not so often
- e) As and when the need arises f) rarely

9i) What type of information on health do you look for?

- a) Preventive b) Curative c) Infectious d) others (please specify)

9ii) Why do you look for the answer selected to the question above?

.....
.....

12) What do you know about the condition called Obstetric fistula?

.....

13) From where did you get your information on fistula?

- a) Radio b) Television c) Newspapers d) Internet e) Healthcare providers (E.g. nurses, midwives, community healthcare nurses etc)
- f) Community sources (E.g. durbars, meetings, social gathering etc)
- g) Inter-personal sources (E.g. Family and friends)
- h) Other (Specify):

14) On a scale of 1-5, please tick your answer for Questions 14 (a - b), where;

1= Strongly Disagree 2= Disagree 3= Don't Know 4= Agree 5= Strongly Agree

	QUESTION	1	2	3	4	5
A	I am at risk of getting Obstetric Fistula					
B	Obstetric Fistula is harmful to me					
C	Obstetric Fistula can be prevented					
D	Obstetric Fistula can be treated					

15) Do you know of anybody who has/has had this condition?

- a) Yes b) No

16) Which of the following is your preferred source for receiving health information?

(Record sources mentioned).

- a) Radio b) Television c) Newspapers d) Internet e) Healthcare providers (E.g. nurses, midwives, community healthcare nurses etc)
- f) Community sources (E.g. Chief, Queen mother, Opinion leader etc)
- g) Inter-personal sources (E.g. Family and friends)
- h) Religious leaders

- i) Non-governmental organizations
- j) Government officials
- k) Other (Specify):

17) What do you consider in using the preferred channel?

- a) Cost b) Convenience c) Credibility d) Accessibility

18) Which of the following sources would you trust most for information on fistula? (Please tick one)

- a) Radio b) Television c) Newspapers d) Internet e) Healthcare providers (E.g. nurses, midwives, community healthcare nurses etc)
- f) Community sources (E.g. Chief, Queen mother, Opinion leader etc)
- g) Inter-personal sources (E.g. Family and friends)
- h) Religious leaders
- i) Non-governmental organizations
- j) Government officials
- k) Other (Specify):

18i) Why?

.....

19) What communication gadgets do you own (you can tick more than one)

- a) Radio set b) Television set c) computer d) IPAD e) normal mobile phone
- f) Smart phone g) Satellite dish

20) Do you think there is enough awareness about fistula?

- a) Yes b) No

20i) If 'No', what can be done to increase awareness?

.....
.....

21) Do you think fistula can be eradicated in the country?

- a) Yes b) No

21ii) Why?

.....

22) How does the community view women known to suffer from fistula?

- a) As an outcast/ cursed
- b) Dirty
- c) Adulterous
- d) People needing support
- e) Don't know f) Other (state)

23) How do you feel about women with fistula?

- a) As an outcast/ cursed
- b) Dirty
- c) Adulterous
- d) People needing support
- e) Other (Specify):

Demography of Participant:

Q1) Name of the Rural/Urban Area:

Q2) Age:

Q3) Marital Status:

- a) Married b) Divorced c) Separated d) Widowed e) Single

Q5) Highest Educational Level:

- a) None b) Primary c) JHS d) SHS e) Voc & Tech f) Tertiary and above
g) No income

Q5) Occupation:

Q6) Monthly Income level (GHc): a) below 100 b) 100-500 c) 600 - 1,000
d) Over 1,000 e) None

Code for Interview Area:

Name/Code of Interviewer:

Date:

Time:

Thank you for your assistance.

APPENDIX II

IN-DEPTH INTERVIEW GUIDE FOR HEALTHCARE PROFESSIONALS

I would like to ask you some questions about your knowledge, attitude and perceptions towards Obstetric fistula. I am also interested in knowing how you educate women and victims about this medical condition.

Your responses will be strictly confidential and will assist in giving empirical evidence to the level of knowledge on Obstetric fistula, effects of the conditions on victims, the communications strategies used in educational efforts and any other issues related to fistula.

The interviews will be recorded because I do not want to miss of your comments but your responses will be strictly confidential. Information given will be used strictly for the purpose of this study. I will be taking notes alongside the recording too. The interview is conversational and you should feel free to provide further clarification on issues. The entire exercise will take between 45 minutes to an hour of your time.

Are there any questions about what I have just explained or do I have your consent to continue?

Do I have your consent to continue?

- 1) What is Obstetric fistula and how long have you known of the condition?
- 2) What is the prevalence rate here?
- 3) What is the socio-economic status of those most frequently diagnosed with the condition?
- 4) What is the knowledge of your patients on OF before, during and after treatment?
- 5) Who are most likely to seek information on the condition?
- 6) What has been the response of the community on OF activities?
- 7) How often are public awareness outreaches organized?
- 8) What are your observations on;
 - education campaigns so far
 - attitude of people towards the condition and victims
- 9) What strategies, interventions tools should be (dis)continued and why?

APPENDIX III

IN-DEPTH INTERVIEW GUIDE FOR FISTULA PATIENT

I would like to ask you some questions about your knowledge, attitude and perceptions towards obstetric fistula. I am also interested in knowing how you became a fistula patient, your treatment processes and society's attitude towards you and your views on tools used in the educational campaigns.

The interviews will be recorded because I do not want to miss of your comments but your responses will be strictly confidential. Information given will be used strictly for the purpose of this study. I will be taking notes alongside the recording too. The interview is conversational and you should feel free to provide further clarification on issues. The entire exercise will take between 45 minutes to an hour of your time.

Are there any questions about what I have just explained or do I have your consent to continue?

Demography of Respondent

Name of community:

Interview date:

Age:

Number of children:

- 1) Why do you think you got the OF condition?
- 2) Were you aware of the condition before becoming a victim?
- 3) Are your relatives/friends aware of your condition and how do they feel?
- 4) What has been your experience with yourself and the society when you become an OF patient?
- 5) What do you think about the communication strategies and tools being used in OF education?
- 6) Would you like to be part of people who educate others about OF? And Why?
- 7) Do you think OF can be prevented in Ghana?

APPENDIX IV

INDEPTH INTERVIEW GUIDE FOR OPINION LEADER

I would like to ask you some questions about your knowledge, attitude and perceptions towards obstetric fistula. As an opinion leader in your community, I am also interested in knowing what you are doing to educate other people in your area.

The interviews will be recorded because I do not want to miss of your comments but your responses will be strictly confidential. Information given will be used strictly for the purpose of this study. I will be taking notes alongside the recording too. The interview is conversational and you should feel free to provide further clarification on issues. The entire exercise will take between 45 minutes to an hour of your time.

Are there any questions about what I have just explained or do I have your consent to continue?

10) When did you become aware of OF?

11) How did you get to know about it?

12) How involved are you in educating people about OF?

13) What do you do and how does your position in society help you in creating awareness about OF?

14) What are your observations on;

- education campaigns so far
- attitude of people towards the condition and victims
- awareness of society on OF

15) What strategies, interventions tools should be (dis)continued and why?

16) Any other comments?

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