NURSING STUDENTS' KNOWLEDGE OF AND ATTITUDES TOWARDS FEMALE GENITAL MUTILATION

A quantitative study in Ghana

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SUMMARY

The topic of this study was Female Genital Mutilation, a crime against human rights and a severe problem in parts of Africa. Laws against FGM have had limited effect and nurses are faced with many opportunities to inspire behavioral changes in individuals, making the aim of this study to explore Ghana’s nursing students’ knowledge of and attitudes towards female genital mutilation. Data was collected at the Atibie Midwifery and Nursing Training School located in central Ghana. It was a descriptive non-experimental empirical study carried out by collecting quantitative data with questionnaires. Data was registered and analyzed manually. The outcome of this study indicated that nursing students at Atibie Midwifery and Nursing Training School in Ghana have a fairly high knowledge of FGM and FGM-related complications. Further, the students seem to have very mixed attitudes towards FGM, the majority being a negative attitude towards the practice. Although, a small part of the study population does have a more traditional point of view.

Keywords: female genital mutilation, attitude, knowledge, nursing students, Ghana
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1 INTRODUCTION

The authors first came in contact with the issue of female genital mutilation during a course in global health as part of the nursing program. Further knowledge was acquired and an understanding of the magnitude and great complexities of the problem started to grow along with the ideas for this thesis.
2 BACKGROUND

Female genital mutilation [FGM] is a crime against human rights (United Nations [UN] 1948), and a severe problem in parts of Africa. Women who are genitally mutilated are at risk of obstetric and gynecological problems, most often in conjunction with delivery (World Health Organization [WHO] 1998). Laws against female genital mutilation have had limited effect (Ball, 2008), among other places in Ghana (Ako & Akweongo, 2009). Nurses and other health care staff are faced with many opportunities to inspire behavioral changes in individuals (Faskunger, 2008). Research has indicated that the less knowledgeable people are about FGM in general, the more likely they are to support the practice of FGM (Allam et al., 2001). Research involving nurses has shown a lack of knowledge and negative attitudes toward FGM and genitally mutilated women (Kaplan-Marcusan et al., 2009). Health education has proven to decrease the willingness to circumcise future daughters (Asekun-Olarinmoye & Amusan, 2008).

2.1 The definition of Female Genital Mutilation, Knowledge and Attitude

**Female genital mutilation** is described as all procedures resulting in partial or complete removal of or other injury of the female external genitalia for non-therapeutic reasons (WHO, 1997). WHO (1998) define four grades of FGM (I) removal of the clitoral prepuce with or without partial or complete removal of the clitoris; (II) removal of clitoris with partial or complete removal of labia minora; (III) partial or complete removal of the vulva and infibulation (suturing the vaginal opening); (IV) unspecified, for example piercing, stretching, burning, scraping, corroding and cutting of the genitals.

**Knowledge** is defined as “the fact or condition of knowing something with familiarity, gained through experience or association” (Knowledge, n.d.).

**Attitude** is defined as “a mental position with regard to fact or state” or “a feeling or emotion toward a fact or state” (Attitude, n.d.).

2.2 The history of FGM

It is not known from where the tradition of FGM originated, it is a tradition that has been practiced for thousands of years, starting long before the establishment of both Christianity and Islam. Ancient Egyptian mummies have been found circumcised, indicating the practice dating
from as far back as the fifth century B.C. (Little, 2003). FGM started in societies where the women were subordinate to the men. FGM is performed by Christians, Muslims and Animists (Persson et al., 2007) as well as Falasha Jews (Kaplan-Marcusán et al., 2010). FGM was practiced in the western world, for example, the United States of America and Europe as late as the 1930's to treat psychological disorders and to prevent masturbation as well as clitoral enlargement, redundancy, hysteria and lesbianism (Little, 2003).

The grounds for the practice of FGM

The cultures in which FGM are practiced are very diverse and so are the reasons behind it. In common is the role in the women's cultural identity that FGM plays (WHO, 1998) and it is often viewed as a cultural right. Most societies practicing FGM hold high regard for purity and sexual restraint before marriage and the mutilation is a way of protecting and controlling virginity (Little, 2003). FGM is based on a complex interaction between rights, values and cultures (Kaplan-Marcusán et al., 2010). The reasons for practicing FGM may be sociocultural, hygienic, aesthetic, spiritual, religious or psychosexual (WHO, n.d.). In certain societies there is a belief that the clitoris is a male remainder and that is the reason for performing FGM. In other communities people believe that the clitoris will grow large like a third leg if not cut (Persson et al., 2007) or that the clitoris will kill the baby or man when they touch or look at it (Little, 2003). Others believe that the female orgasm kills the sperm and that the fertility, as a result, will increase after FGM (Persson et al., 2007).

In most cultures where FGM is practiced, it is not until after the circumcision that the girl becomes a proper woman and FGM always needs to be done before the girl can get married. In most African cultures the women are economically and socially dependent on men and therefore staying unmarried is not an option (Persson et al., 2007). It is of great importance to understand the context of FGM and that it may genuinely be an act of love and be thought by parents to be in the child's best interest, and may not be regarded as a form of abuse (British Medical Association, 2006), although a recent study in Egypt showed a statistically significant positive association between positive attitudes and beliefs towards FGC, including the intention to have their daughters circumcised, and the likelihood of maternal physical abuse of the children (Afifi & von Bothmer, 2007). FGM is performed in every social stratum, among both rich and poor people, undereducated or highly educated persons and both in cities and in the countryside (Persson et al., 2007), although some research has shown a statistically significant
correlation between mutilation of the daughters and parents with no formal education (Asekun-Olarinmoye & Amusan, 2008).

### 2.3 The prevalence of FGM

FGM is most commonly practiced in African cultures, and in some parts of the Middle East (WHO, 1998). Due to migration, women who are circumcised live all over the world (Persson et al., 2007). In the world the most common types are grade I and II (WHO, 1998) and there are an estimated 130 million girls and women subjected. It is estimated that approximately 2 million girls and women are at risk of being circumcised every year (WHO, 1997).

Around 2.6 million women in Ghana are genitally mutilated. This is about 30% of the total female population. The most common type in Ghana is grade II (WHO, 1998) though the practice is mostly seen in northern Ghana, excluding migrant populations (Kadri, 1986 cited in WHO, 1998). In comparison Egypt and Somalia have a prevalence of FGM of almost 97-98%, while the Democratic Republic of Congo and Uganda only have an estimated 5% prevalence (WHO, 1998).

### 2.4 The procedure of FGM

FGM is usually performed when the girl is still young. Sometimes it is done when the girl is only a few days old and sometimes it is performed just before the wedding (Persson et al., 2007). Very rarely is the girl over the age of sixteen (Little, 2003). FGM is most commonly performed between the ages of four and fourteen and is a rite of passage to adulthood (WHO, 1998). In a study in northern Ghana it was shown that girls who had been married were four times more likely to have been mutilated than girls who had never been married, though it was not clear which factor was the cause and which was the effect (Feldman-Jacobs & Ryniak, 2006).

FGM is usually performed by a specially designated elderly woman in the community or less commonly traditional birth attendants. In some countries health professionals perform the mutilation under the name circumcision (WHO, 1998). FGM is usually performed without knowledge of normal anatomy, physiology and hygiene (Persson et al., 2007).
A knife, a piece of glass or a razor blade is often used and analgesia is not common. Sand, mud, ash, herbs or animal dung is sometimes used to stop the bleeding (Persson et al., 2007). In some cultures the excision is conducted in large groups of girls at once, up to one hundred, and in some cultures it is a private family matter and is performed in the privacy of the home. The procedure itself usually takes around 20-30 minutes of time but the healing process can be lengthy, especially in grade III mutilations where the legs are tied together for two to six weeks (Little, 2003).

**Health consequences of FGM**

According to Morison et al. (2001) the practice of FGM has repercussions on the physical, psychic, sexual and reproductive health of women, claiming that FGM can damage the woman’s future quality of life.

There are fewer complications with grade I and II than grade III even though the grade II mutilated vagina will sometimes heal with fusion of the raw surfaces thus resulting in a very infibulated like mutilation with many of the same complications (Iregbulem, 1980; Diejomaoh & Faal, 1981). The prevalence of complications depends on several factors such as hygiene, extent of cutting and the child's inherent tendency to bleed (WHO, 1998), and are most commonly seen in the genitourinary system. Acute complications of FGM may be severe pain, injuries to neighboring organs such as rectum, vagina or urethra. Severe bleeding is common as the clitoral artery is cut. Acute urinary retention and infections are also common. Other complications are fractures due to the pinning down of the girl when the excision is performed (Persson et al., 2007). Death caused by FGM is seen as a consequence of hemorrhagic shock, neurogenic shock or septicemia. The single most common long term health consequence of all types of FGM is dermoid cysts which form when the lubricating glands of the vulva continue to secrete inside the scar tissue. Other long term complications of grade I and II include urine retention and infections, incontinence, painful sexual intercourse and infertility as well as menstrual problems, fistulas and severe bleeding from the clitoral artery during childbirth, not to mention the traumatic memories of the procedure itself (WHO, 1998). FGM is often done on a number of girls, one after another, increasing the risk of blood borne infections such as HIV and hepatitis (Persson et al., 2007). Research has also shown that circumcised women are more likely to be infected with HIV than uncircumcised women, not only from the unhygienic initiation itself but from vaginal tearing from forceful intercourse (Brady, 1999).
2.5 Steering documents concerning FGM

*International agreements concerning FGM*

Female genital mutilation is a crime against human rights, not only in the sense of equality and freedom for all, but also all human being's right to health, non-discrimination on the basis of sex and/or gender as well as physical and mental integrity (UN, 1948). It is also a violation against the Convention on the Rights of the Child not only in their right to participate in decisions concerning their future but the right to develop physically, mentally and socially to their fullest potential. Children shall also be protected from all forms of physical or mental violence (UN, 1989). In 1989, WHO Regional Committee for Africa adopted a resolution recommending among other things that medicalization of FGM should be prohibited and that information on the dangers of FGM should be included in the training programs of health and traditional birth attendants (WHO, 1998).

In 1982 WHO made a formal statement on its position regarding FGM stating that governments should adopt national policies to abolish the practice and to inform and educate its people on the harmfulness of the practice (WHO, 1998).

The UN convention in 1979 on the Elimination of all Forms of Discrimination Against Women did not specifically address the issue of FGM although it clearly states that all member states should actively work towards modifying or abolishing existing customs and practices which constitute discrimination against either of the sexes (UN, 1979). In 1993 the UN Declaration on Elimination of Violence Against Women FGM is mentioned among other forms of violence and harmful practices (UN, 1993).

During the United Nation’s International Conference on Population and Development [ICPD] in Cairo 1994, all participating countries were requested among other things to counteract this type of gender based violence. The declaration and program of the ICDP also clearly calls for the prohibition of FGM and characterizes FGM not only as a violation of basic human rights and a major lifelong risk to women's health but describe it as coercive and discriminatory (United Nations Population Fund [UNFPA], 2010).

In April 2006, fifteen of the 28 African states where FGM is prevalent had made it an offense under criminal law (UN, 2006).
National agreements concerning FGM

FGM has been illegal in Ghana since the year of 1994, and is an offense leading to no less than three years imprisonment (Constitution of the Republic of Ghana 1994:484, §1), but this law has had very little influence on the people’s practices (UNFPA, 2010). Similar laws in other countries have also had limited effect, this might be partly due to difficulties enforcing these laws over the vast areas affected and partly due to the taboo of the subject (Ball, 2008). The first independent African state to pass a law specifically against FGM was Ghana. Prior to this, several states had laws prohibiting health care professionals performing FGM while performing any surgical operation of any kind was prohibited for everyone else, thus making FGM indirectly illegal. To this day, most countries do not have explicit laws prohibiting FGM, including many western countries. In the year of 1982, Sweden passed a law against FGM making it an offense leading to no more than four years imprisonment (Lag med förbud mot könsstypning av kvinnor, SFS 1982:316), being the first country in the world with African immigrants to pass a specific law against the practice (WHO, 1998). The recently developed trend of designer vaginas in the western world may be adding to the issue of legislation against FGM, since the definition of FGM includes all procedures resulting in partial or complete removal of or other injury to the female external genitalia for non-therapeutic reasons, thus including any plastic surgery performed regardless of the reason behind it, may it be cultural or esthetic. Some of the surgeries performed in the western world, the phenomena referred to as designer vaginas, are tightening of the vagina, shortening of labia minora, clitoris lift, liposuction of the pubic mound, not completely unlike a traditional circumcision (Johnsdotter, 2009). Social pressure and physical ideals may result in a perceived need for cosmetic surgery in the western world in a similar way that FGM would in certain other countries (Sheldon and Wilkinson, 1998).

2.6 Strategies and collaboration in abolishing FGM

WHO has been promoting the elimination of harmful traditional practices since the 1970s, including gathering information on FGM. In 1979 the Seminar on Traditional Practices was held in Sudan, sponsored by WHO, being the first international forum on FGM and the first step in formulating international recommendations on the subject (WHO, 1998).

Some countries, mainly in Africa, still have a high prevalence of FGM despite legislation. This indicates that behavioral change will come primarily from social measures, for example
planning and collaboration between different parts of the society such as government institutions, human rights organizations and the parts of society that practice FGM (Ako & Akweongo, 2009). Odur et al. (2006) also describe this in their study, they claim that pressure from outside rarely is productive, since it may be perceived as cultural imperialism and disrespect towards the people’s culture and customs. Their study showed that health work and communication in line with the local culture, for example information campaigns against FGM, was effective. Ako and Akweongo (2009) also point out the importance in societal and culturally adapted campaigns to achieve a noticeable improvement. According to WHO (1998) the amount of scientific research done on the subject is relatively small in light of the size and complexity of the practice. It is important to discuss FGM and to develop and increase the competence in the health care sector since they often meet the circumcised women (Persson et al., 2007).

In a FGM reducing project conducted in northern Ghana between the year of 1999 and 2003, the result clearly showed that the single most important factor to change was FGM educational activities, followed by a combination of education with livelihood and development activities (Feldman-Jacobs & Ryniak, 2006).

### 2.7 Health care and FGM

**The role of nurses**

According to the International Council of Nurses [ICN] the four fundamental responsibilities of a nurse is to promote and restore health, to prevent illness and alleviate suffering. Nursing must be founded in a respect for human rights, including cultural rights, the right to life and choice and should be unrestricted by considerations of gender, social status et cetera. Furthermore, a nurse should promote the importance of personal health and illustrate its relation to other values (ICN, 2005). According to a local nursing job description provided by the principal of Atibie Midwifery and Nursing Training School, P. Osabutay (personal communication, April 22nd 2011) a nurse must advise and teach patients and their relatives on the promotion of health and prevention of illness. According to Gedda (2003) guidance is of more use than informing in promoting health, since it is a mutual exchange of knowledge and experience. The nurse and the patient work together to understand the current situation based on their previous experiences to truly root the learning in the patient (ibid.). Nurses and other health care personnel have great potential to inspire behavioral changes in individuals since they have regular personal contact.
with the people, especially with the part of the population in need of these changes (Faskunger, 2008). According to WHO the most important principles of professional health ethics are to do no harm and preserve healthy body organs at all costs (WHO, 1998). Nurses must be active in maintaining and developing a research based professional knowledge (ICN, 2005). However it must be kept in mind that most mutilated women live in countries with limited infrastructure and availability of health care, and may not be in contact with nurses very often (WHO, 2006). Thompson (1994) describes that it is important that nurses act according to the attitudes and values of the nursing profession. A person’s attitude can deeply influence the thinking, personality and lifestyle of the individual concerned. Being a nurse includes not only theoretical knowledge and practical expertise but also to consider the ethic and moral values. Ethics is concerned with a person’s feelings, attitudes and values which will in turn affect the person’s way of dealing with people. Moral experience is therefore an important part of the nursing education (ibid.).

Health care system and nursing in Ghana

In 2008 there were 22834 nursing and midwife personnel in Ghana, giving a ratio of 9.8 nurses per 10,000 population, in comparison to the ratio in Sweden (2006) 115.7 per 10,000. In Ghana (2008) there were also 1.9 community health workers per 10,000 inhabitants (n = 4502), and none in Sweden. In the year of 2008 there were 1.1 doctors per 10,000 inhabitants in Ghana and in 2006 there were 35.8 doctors per 10,000 inhabitants in Sweden (WHO, 2011).

There are both private and government nursing schools in Ghana and the nursing program is between four and six semesters of full-time studies followed by one year of clinical internship (Ministry of Health, Ghana, 2011). Found in one of the books used in teaching at the Atibie Midwifery and Nursing Training School, there is a section clearly stating that female circumcision is harmful and should not be done. Further it states that cutting the clitoris is as bad as cutting off the end of the penis of a boy, that those with more extensive cutting often have difficulties in delivering babies and that the procedure itself may cause severe bleeding. Regarding male circumcision the book states that it may be necessary and usually does no harm (Werner, Thuman, Maxwell & Pearson, 1993).

To complement the nurses in developing countries, other health care staff may be trained, including traditional birth attendants. A traditional birth attendant [TBA] may be a recognized professional trained by older TBAs or she may be an experienced relative who has delivered a
few babies in the past. Since most babies are born at home in most rural communities in
developing countries, TBAs and their competence are of great importance. The community
nurse may be involved in the initial instruction and the subsequent supervision of the TBAs
(Byrne & Bennett, 1986), thus making the competence and influence of the nurses of great
importance. More than 40% of the Ghanaian population has been reported to lack access to
health care (Utrikespolitiska Institutet, 2008).

The National Health Insurance Scheme [NHIS] is funded by membership premiums and the
central government. The NHIS includes three main categories of health insurance. The first
category is the district mutual health insurance scheme that any resident in Ghana can register
under, whether you are able to pay or not. The second category of health insurance comprises
the private commercial health insurance operated by approved companies and is paid for by the
individual. The third category is the private mutual health insurance scheme, for groups such as
church groups, paid by the group. By signing up for one of these schemes one will receive
treatment and approved drugs without having to pay up front and one is entitled to necessary in-
and out-patient care, maternity care, emergency care and certain dental care. One may have to
pay additional fees for anti-retroviral drugs for HIV, heart and brain surgery other than those
resulting from accidents, all organ transplants, cosmetic surgeries, dialysis, cancer treatment
other than breast and cervical cancer and a few other conditions, treatments and examinations

The knowledge of FGM among health care professionals

Livermore, Monteiro and Rymer (2007) state that health care professionals must have a
sufficient insight in the health complications, legislation and educational programs of FGM as
well as women's attitudes towards and perceptions of it in order to enhance their consultations
with the affected women. However research on health care professionals in the western world
have shown a lack of knowledge and negative attitudes toward FGM and genitally mutilated
women. The researchers conclude that adequate specialized training and understanding is
essential in solving this problem (Kaplan-Marcusan et al., 2009). A Flemish study showed that
gynecologists were in favor of the medicalization of FGM (Leye et al., 2008), something that
WHO (1989) condemns, and only a third of them were discouraging women from having their
daughters mutilated (Leye et al., 2008). Many genitally mutilated women are reluctant to seek
medical care due to shame, fear and worry that they will be received with a lack of knowledge
and understanding (Daley, 2004).
According to Bjälkander (2008) health care professionals in Sierra Leone were skeptical of the fact that FGM may lead to medical complications, the reason for this being the lack of studies on girls in Sierra Leone. The doctors claim that the studies that have been conducted in other countries are not valid in Sierra Leone because other countries practice other grades of FGM, although the same doctors showed a consistent lack of knowledge about the studies mentioned above, as well as WHO’s and other organizations standpoints on FGM. These factors make it very difficult to encourage health care professionals to take part in campaigns against FGM (ibid.).

In another study (Oduro et al., 2006), it is discussed why FGM is still common practice despite reports on complications and following health problems. The authors bring up the problem of insufficient data - the frequency of these complications is not clear since the studies that have been conducted are small scale. In the countries where the prevalence is high, there is also a risk that the complications are viewed as a normal part of a female’s life, not necessarily as a direct complication of FGM (ibid.).
3 PROBLEM

That FGM is all conducted is a serious humanitarian problem that leads to difficulties on a physical, psychological, sexual and societal level. Legislation against FGM has had limited effect, which indicates a need for a change of attitude in different levels of society. Nurses and other health care professionals have great potential to inspire individuals to behavioral change due to their regular personal contact with the people in need of change. However, studies on nurses in the western world have shown a lack of knowledge and negative attitudes toward FGM and genitally mutilated women, this resulting in a poorer level of health care. Thus, future nurses’ knowledge and attitudes towards female genital mutilation is important to research and understand, especially in a country with a high prevalence of FGM. The authors cannot find any published studies on this topic in Ghana in the databases searched.
4 AIM

The aim of this study is to explore Ghana’s nursing students’ knowledge of and attitudes towards female genital mutilation.

4.1 Research questions

1. How is the knowledge about female genital mutilation among nursing students in Ghana?
2. How are nursing students’ attitudes towards female genital mutilation?
5 METHOD

5.1 Design

This is a descriptive non-experimental empirical study carried out by collecting quantitative data with questionnaires.

5.2 Sample

In a quantitative study a sample as big as possible is important (Polit & Beck, 2008). The number of nursing students in their final year is limited in this school, which means that measures must be taken to decrease the risk of subjects withdrawing from participating in the study.

Study area and population

Atibie is a town in central Ghana with 3736 inhabitants in the year of 2000 (personal communication with Mr. P. Ziddah of Statistical Service Atibie, May 4th 2011). According to the human resource executive officer of Atibie Midwifery and Nursing Training School, B. Asare-Icyei, (personal communication, May 4th 2011) there are 213 nursing students and 148 midwifery students at this particular school. All students are female and ages range between 18 and 49 (ibid.). Less than 10% of the students are originally from Atibie area, but all originate from Ghana, and most will return to their hometown upon completing training (personal communication with nursing tutor L. Badu, May 6th 2011).

Sample selection

Nursing students in their final year of nursing training at Atibie Midwifery and Nursing Training School in Ghana were included in the study. Forty-five of the final year nursing students were randomly selected by choosing the 45 students sitting in the front of the classroom, starting from the right. Exchange students and other temporary visitors were excluded since they were not likely to practice as nurses in Ghana. All participants were given a small gift, a Red Cross University College pen, as a token of gratitude for their time and effort.
5.3 Data collection

The principal of Atibie Midwifery and Nursing Training School, Mrs. Paulina Osabutay, was contacted ahead of time with extensive information on the study and a request for permission to collect the data.

Each nursing student received an envelope with the questionnaire and a form explaining that they give their informed consent to participate in the study by filling out the questionnaire and returning it and that the information will be kept strictly confidential. They were given oral instructions not to put their name on the questionnaire, but simply answer the questions as directed and try their very best not to leave blanks. The respondents were informed on what the topic of the study was, but they were given no education on the subject by the authors. They were instructed to return the questionnaire in the sealed envelope the following day.

The structure of the questionnaire

The questionnaire was specifically designed for this study. The questionnaire was presented in English, which was not expected to be a problem since English is the official language of Ghana and also the language that is spoken in class. The term female genital circumcision [FGC] was used since the term mutilation may be regarded as offensive. Please see the questionnaire as attached, appendix 2. A questionnaire containing 49 items was constructed according to the recommendations of J. Wallenborg of Statistics Sweden's [SCB] (personal communication, July 8th 2010). Initially a list of variables was made and a schedule clarifying the particular questions of interest. The schedule was used as a base and it was clear that the questionnaire needed two separate sections – one for attitude and one for knowledge. Basic demographic information was also included.

To make the collected data standardized and easy to interpret closed questions were used, though none of the items were completely closed questions as there was always an uncertain or other option. The questionnaire was balanced by an attempt to have the same amount of positive and negative statements on FGC, this to avoid respondents ticking the first option no matter what their opinion is or agreeing more often than they would like to (Brancato et al., 2006). It is advisable to use a Likert scale for questions on attitude (Olsson & Sörensen, 2007).

The facts and various beliefs that were used to phrase the questions in the questionnaire were gathered from the literature from WHO (1997, 1998, 2006).
Olsson and Sörensen (2007) recommend that the questions of a questionnaire should be in a logical order and that simple questions that are easy to answer should come before the more difficult ones, therefore the knowledge part will be presented to the respondent before the attitude section. For maximum user-friendliness Statistics Sweden's mall för enkäter provided by J. Wallenborg of SCB (personal communication, July 8th 2010) was used for design and layout. The layout makes the questionnaire pleasant and easy to fill out and it has sufficient instructions for the participant to be able to fill it out properly, and with ease. Final adjustments were made using the checklist from SCB (ibid.), ensuring that the questionnaire was following all their rules and recommendations.

**Testing the questionnaire**

According to the recommendations of J. Wallenborg of SCB (personal communication, January 5th 2011) the questionnaire was tested using six nursing students who have completed half or more of their nursing education. Two of the students were attending the Red Cross University College in Sweden and four were nursing students from Ghana visiting Sweden at the time. To find two nursing students from the Red Cross University College an e-mail was sent out to all the students conducting their last year of nursing training to match the target population as much as possible. The first two to reply were selected. The Ghanaian students were selected merely based on their origin. Each participant was offered 100 Swedish kronor for their time and effort. The students were asked to complete the questionnaires and each item was discussed with the authors to ensure that the questions were easy to understand and answer. The students were also asked to give feedback regarding the layout and choice of questions. The four students from Ghana were given special attention in the matter of offensiveness in the questions and appropriate options for answering all the questions. The necessary changes were made to the questionnaire to match the questions and comments given. Since only small changes were made the questionnaire was not run by the students again.

**5.4 Data analysis**

Data was summarized manually by counting how many respondents chose each option on each item and the count was recorded on a blank copy of the questionnaire. If there was more than one answer ticked per item where it was not allowed, there were no points registered. The numbers were then inserted in a spreadsheet in Microsoft Excel 2007, and charts and tables
were organized to illustrate the results. Each questionnaire was numbered in order to facilitate identifying them in the process of data analysis, in accordance with Trost's (2007) recommendations. It was also recorded on the front of the questionnaire how many correct answers out of the total possible the respondent had selected in the knowledge section.
6 ETHICAL CONSIDERATIONS

Along with the questionnaire there was a form attached explaining that participating was completely voluntary, that the questionnaires were anonymous, and that the information will be kept confidential at all times (appendix 2). It also briefly explained the aim of the study. By filling out the questionnaire and handing it in they gave their informed consent to partake in the study. The respondents’ identities were not to be registered at any point, and the collected information was to be accounted for anonymously and only for the purpose of this thesis.

Approval of the ethical considerations was given from the course examiner at the Red Cross University College prior to the initiation of the study itself. The principal of Atibie Midwifery and Nursing Training School also approved the data collection and study to be conducted prior to initiation. The exchange program between the Red Cross University College and Atibie Midwifery and Nursing Training School may influence the principal's willingness to approve the subject of the study, feeling obliged to do so.

Since the participation of the local principal and or teachers may be perceived as influential, and the students may hesitate to decline partaking in the study, their participation was kept at a minimum. The students may also feel pressure to score high since the results will be presented to the school. It must be completely clear at all times who is conducting this study and what the information will be used for. In regards to the sensitive nature of the subject, it was not optimal that the respondents fill out the questionnaires in a classroom with their peers, since it may hinder the respondents from answering the questionnaire truthfully. On the other hand this way the risks of dropouts and cooperation among the students in filling out the knowledge part were minimized. FGM is not common practice in southern Ghana, but the students at the Atibie Midwifery and Nurses Training School originate from all of Ghana, so it was of great importance that no student felt singled out at any point of the data collection or in the presentation of the results.
7 RESULTS

Out of the 45 questionnaires handed out, 44 were returned giving a response rate of 98%. One was returned blank, meaning 43 questionnaires were analyzed. Some of the 43 questionnaires were not fully completed. The response rate of each item is presented in the table in the column number of respondents. One of the questionnaires was less than 20% completed. All 43 (100%) of the respondents were women and the mean age was 23 years of age, ranging between 20 and 27 (see table 1). All students but three had completed three semesters of nursing school. Two of those stated they had completed two semesters and one student did not state.

Table 1. Ages of respondents

<table>
<thead>
<tr>
<th>Years of age</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>6</td>
</tr>
<tr>
<td>21</td>
<td>4</td>
</tr>
<tr>
<td>22</td>
<td>7</td>
</tr>
<tr>
<td>23</td>
<td>7</td>
</tr>
<tr>
<td>24</td>
<td>10</td>
</tr>
<tr>
<td>25</td>
<td>5</td>
</tr>
<tr>
<td>26</td>
<td>3</td>
</tr>
<tr>
<td>27</td>
<td>1</td>
</tr>
</tbody>
</table>

The respondents stated they had learned the most about FGC from class at school, followed by television and thirdly from the radio (see table 2), clearly showing that school is the major source of knowledge. Few students state they learned about FGC from their families. In stating the reasons for FGM being conducted, cultural and traditional were the highest ranking, followed by pressure from society and to ensure virginity (see figure 1).
Table 2. Sources of knowledge of FGC among respondents, number (n) of times each option was selected.

<table>
<thead>
<tr>
<th>Sources of knowledge</th>
<th>None (n)</th>
<th>Little (n)</th>
<th>Some (n)</th>
<th>A lot (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>In class at school</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>32</td>
</tr>
<tr>
<td>Television</td>
<td>2</td>
<td>8</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>Radio</td>
<td>0</td>
<td>11</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>Doctors/nurses</td>
<td>4</td>
<td>12</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Internet</td>
<td>17</td>
<td>7</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Community health education</td>
<td>13</td>
<td>6</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Newspapers and magazines</td>
<td>3</td>
<td>7</td>
<td>20</td>
<td>6</td>
</tr>
<tr>
<td>Family members</td>
<td>13</td>
<td>11</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Friends</td>
<td>4</td>
<td>16</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>Bulletin boards/posters</td>
<td>18</td>
<td>8</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Other (n: 2); documentary (n: 1), from my grandparents as history (n: 1).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 1. The purpose of FGC, number of times each option was selected among the respondents.
*Other, “To reduce the rate of sexual immorality in youth.” (n: 1), “They believe when it is done it prevents them from having early sex.” (n: 1), “To avoid fornication.” (n: 1), “Cultural practices.” (n: 2) and “To prevent sexual immorality.” (n: 1).
### 7.1 Results from the knowledge section

Table 3 presents the results from the knowledge section of the questionnaire. Each item is presented with the number of correct and incorrect answers given by the respondents.

**Table 3. Results of the knowledge section. Number of correct and incorrect answers given by the respondents on each item.**

<table>
<thead>
<tr>
<th>5. Knowledge Scale</th>
<th>Number of correct answers</th>
<th>Number of incorrect answers</th>
<th>Uncertain</th>
<th>Number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. There are laws against Female Genital Circumcision in Ghana (true)</td>
<td>32</td>
<td>6</td>
<td>4</td>
<td>42</td>
</tr>
<tr>
<td>b. There are laws against Female Genital Circumcision in other countries (true)</td>
<td>12</td>
<td>2</td>
<td>28</td>
<td>42</td>
</tr>
<tr>
<td>c. Uncircumcised women get more infections (false)</td>
<td>30</td>
<td>10</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>d. Female Genital Circumcision can cause infertility (true)</td>
<td>32</td>
<td>9</td>
<td>2</td>
<td>43</td>
</tr>
<tr>
<td>e. There are different types of Female Genital circumcision (true)</td>
<td>13</td>
<td>17</td>
<td>11</td>
<td>41</td>
</tr>
<tr>
<td>f. Female Genital Circumcision is legal in Ghana (false)</td>
<td>28</td>
<td>12</td>
<td>2</td>
<td>42</td>
</tr>
<tr>
<td>g. Female Genital Circumcision can cause severe bleeding (true)</td>
<td>43</td>
<td>0</td>
<td>0</td>
<td>43</td>
</tr>
<tr>
<td>h. Circumcised women are more likely to suffer from urinary incontinence (true)</td>
<td>35</td>
<td>4</td>
<td>2</td>
<td>41</td>
</tr>
<tr>
<td>i. Female Genital Circumcision is not dangerous (false)</td>
<td>40</td>
<td>2</td>
<td>0</td>
<td>42</td>
</tr>
<tr>
<td>j. Female Genital Circumcision can cause cancer (false)</td>
<td>8</td>
<td>25</td>
<td>9</td>
<td>42</td>
</tr>
<tr>
<td>k. Being circumcised makes no difference during childbirth (false)</td>
<td>30</td>
<td>10</td>
<td>2</td>
<td>42</td>
</tr>
<tr>
<td>l. Female Genital Circumcision can give lethal complications (true)</td>
<td>33</td>
<td>1</td>
<td>7</td>
<td>41</td>
</tr>
<tr>
<td>m. If the clitoris is not removed it will grow large like a penis (false)</td>
<td>39</td>
<td>2</td>
<td>0</td>
<td>41</td>
</tr>
</tbody>
</table>
Table 3. continued. Results of the knowledge section. Number of correct and incorrect answers given by the respondents on each item.

<table>
<thead>
<tr>
<th>5. Knowledge Scale</th>
<th>Number of correct answers</th>
<th>Number of incorrect answers</th>
<th>Uncertain</th>
<th>Number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>n. If the clitoris is not removed the baby will die during delivery (false)</td>
<td>39</td>
<td>1</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>o. Circumcised women are less likely to catch sexually transmitted infections (false)</td>
<td>28</td>
<td>9</td>
<td>3</td>
<td>40</td>
</tr>
<tr>
<td>p. Infants of uncircumcised mothers are more likely to die than those of circumcised mother (false)</td>
<td>32</td>
<td>4</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td>q. Female Genital Circumcision improves fertility (false)</td>
<td>37</td>
<td>3</td>
<td>1</td>
<td>41</td>
</tr>
<tr>
<td>r. All women in Ghana are circumcised (false)</td>
<td>41</td>
<td>0</td>
<td>0</td>
<td>41</td>
</tr>
<tr>
<td>s. Female Genital Circumcision can prolong labor during childbirth (true)</td>
<td>28</td>
<td>9</td>
<td>6</td>
<td>43</td>
</tr>
</tbody>
</table>

Out of 43 respondents, 6 (14 %) thought that there are no laws against FGC in Ghana and 4 (9 %) were uncertain. Out of the 43, 28 (65 %) were uncertain regarding whether there are laws against FGC in other countries, and 12 (28 %) believed that FGC was legal in Ghana. None of the respondent claimed that all women in Ghana are circumcised. The five respondents that did not know the answer to any of the questions regarding legislation were also in the group with the lowest amount of total correct answers, getting ten or less correct answers out of 19 possible. Some of the students that did not know FGC to be illegal in Ghana had still stated that there are no laws against FGC in Ghana and vice verse.

All of the respondents (100 %), knew that FGC may cause severe bleeding, a majority of the respondents knew that FGC is dangerous however seven respondents were uncertain whether FGC can give lethal complications or not. Most of the respondents knew that circumcised women are more likely to suffer from urinary incontinence.

Out of the ten respondents wrongly believing that uncircumcised women get more infections, three also thought that circumcised women are less likely to catch sexually transmitted infections and one believed that circumcision promotes cleanliness.

Out of the ten respondents that believed that being circumcised makes no difference during childbirth, three did not know that FGC can prolong labor and one said that infants of
uncircumcised mothers are more likely to die than those of circumcised mothers. Also, out of the ten, five respondents stated that it is in the woman's best interest to be circumcised.

The 43 respondents were divided into two groups depending on age, one group with 20- to 23-year-olds and 24 to 27-year-olds in the other group. In the younger group of 24 respondents, seven (29%) claimed that uncircumcised women get more infections, where only three out of 19 (16%) in the older group believed so. However, the mean total amount of correct answers in the knowledge part was equal in the two groups.
7.2 Results from the attitude section

Table 4 presents the results from the attitude section of the questionnaire. Each item is presented with the number of respondents ticking each option.

Table 4. Results of the attitude section. Number of respondents ticking each option on each item.

<table>
<thead>
<tr>
<th>6. Attitude</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Uncertain</th>
<th>Number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. One is not a proper woman until you are circumcised</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>33</td>
<td>0</td>
<td>41</td>
</tr>
<tr>
<td>b. Female Genital Circumcision should be illegal</td>
<td>26</td>
<td>9</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>42</td>
</tr>
<tr>
<td>c. An uncircumcised woman is happier</td>
<td>18</td>
<td>14</td>
<td>5</td>
<td>4</td>
<td>0</td>
<td>41</td>
</tr>
<tr>
<td>d. It is not right to circumcise young children</td>
<td>29</td>
<td>9</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>41</td>
</tr>
<tr>
<td>e. Female Genital Circumcision should be voluntary</td>
<td>9</td>
<td>16</td>
<td>5</td>
<td>9</td>
<td>3</td>
<td>42</td>
</tr>
<tr>
<td>f. If the clitoris is not removed, a woman cannot please a man</td>
<td>3</td>
<td>1</td>
<td>9</td>
<td>27</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>g. Female Genital Circumcision is unnecessary</td>
<td>30</td>
<td>7</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>42</td>
</tr>
<tr>
<td>h. Each family should decide if they want to circumcise or not</td>
<td>13</td>
<td>17</td>
<td>4</td>
<td>8</td>
<td>0</td>
<td>42</td>
</tr>
<tr>
<td>i. It is in the woman’s best interest to be circumcised</td>
<td>3</td>
<td>7</td>
<td>12</td>
<td>19</td>
<td>1</td>
<td>42</td>
</tr>
<tr>
<td>j. The removal of the clitoris promotes cleanliness</td>
<td>3</td>
<td>2</td>
<td>10</td>
<td>27</td>
<td>0</td>
<td>42</td>
</tr>
<tr>
<td>k. No woman should be circumcised</td>
<td>29</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>l. People who circumcise their children should be prosecuted</td>
<td>21</td>
<td>14</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>42</td>
</tr>
</tbody>
</table>
Table 4. continued. Results of the attitude section. Number of respondents ticking each option on each item.

<table>
<thead>
<tr>
<th>6. Attitude</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Uncertain</th>
<th>Number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>m. I talk to my friends about Female Genital Circumcision</td>
<td>12</td>
<td>17</td>
<td>0</td>
<td>1</td>
<td>9</td>
<td>39</td>
</tr>
<tr>
<td>n. A circumcised woman is no longer a whole woman</td>
<td>10</td>
<td>16</td>
<td>3</td>
<td>7</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td>o. Without circumcision a woman is unable to fulfill her intended role in marriage</td>
<td>0</td>
<td>1</td>
<td>10</td>
<td>29</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>p. It is important to talk about Female Genital Circumcision</td>
<td>26</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>41</td>
</tr>
<tr>
<td>q. I respect uncircumcised and circumcised women equally</td>
<td>5</td>
<td>21</td>
<td>7</td>
<td>5</td>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td>r. Many people talk about Female Genital Circumcision</td>
<td>13</td>
<td>26</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>s. An uncircumcised woman has no self-control</td>
<td>2</td>
<td>6</td>
<td>15</td>
<td>15</td>
<td>1</td>
<td>39</td>
</tr>
<tr>
<td>t. Men only like circumcised women</td>
<td>0</td>
<td>2</td>
<td>12</td>
<td>24</td>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td>u. I respect the people that perform the circumcisions on women</td>
<td>2</td>
<td>1</td>
<td>10</td>
<td>26</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td>v. Female Genital Circumcision is important</td>
<td>0</td>
<td>2</td>
<td>10</td>
<td>29</td>
<td>0</td>
<td>41</td>
</tr>
<tr>
<td>x. I would circumcise my daughters</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>33</td>
<td>0</td>
<td>40</td>
</tr>
</tbody>
</table>

A majority of the respondents agreed that FGC should be illegal, that it is not right to circumcise young children and that people who circumcise their children should be prosecuted. However 30 respondents agreed that each family should decide if they want to circumcise or not. All respondents claimed that they would not circumcise their daughters.

A majority of the respondents agreed that a circumcised woman is no longer a whole woman, the majority also believed that a woman does not need to be circumcised to fulfill her intended role in marriage and most did not believe that men only like circumcised women. Ten respondents believed that it is in the woman's best interest to be circumcised and 36 stated that no woman should be circumcised.
Out of the 12 respondents that claimed not to respect uncircumcised and circumcised women equally, none respected the people that perform the circumcision and three believed that an uncircumcised woman has no self control.

Almost all respondents considered it important to talk about FGC, only one disagreed that many people do talk about FGC, however only 29 claimed they talk to their friends about FGC.

Two groups were distinguished based on their knowledge regarding legislation on FGC, one group containing eight respondents (group A.), knew all the right answers to the questions regarding the legal status of FGC both in and outside of Ghana. In group B., there were five respondents that got all the questions on the legal status wrong or ticked uncertain. Out of the eight respondents in group A., all eight strongly agreed that FGC should be illegal. Out of the five respondents in group B. two strongly agreed FGC should be illegal and three agreed, (figure 2). Furthermore, group A, the group that got all the right answers regarding legislation, six agreed that people who circumcise their children should be prosecuted and two disagreed. Out of group B., four agreed that the people should be prosecuted, one disagreed. In group A., all eight agreed that each family should decide if they want to circumcise or not where four in group B. agreed and one disagreed. On the question whether they respect uncircumcised and circumcised women equally, four agreed and four disagreed out of group A. whereas three agreed and two disagreed in group B. When asked whether they respect the people that perform the circumcisions, all in group A. strongly disagreed and in group B. one strongly agreed, one disagreed, two strongly disagreed and one was uncertain, (figure 3).
Figure 2. Group A contains eight respondents, all knew all the right answers to the questions regarding the legal status of FGC both in and outside of Ghana and group B contains the five respondents that got all the questions on the legal status wrong or ticked uncertain. The figures show how many of the respondents ticked each option on this particular item.

Figure 3. Group A contains eight respondents, all knew all the right answers to the questions regarding the legal status of FGC both in and outside of Ghana and group B contains the five respondents that got all the questions on the legal status wrong or ticked uncertain. The figures show how many of the respondents ticked each option on this particular item.
8 DISCUSSION

8.1 Discussion of method

The data for this study was collected through a questionnaire, even though Polit and Beck (2008) argue that a personal interview will give a higher quality of data. This decision was made based on the taboo of the subject being studied. The absence of an interviewer will give more honest answers and the questionnaires will increase the perceived anonymity (Polit & Beck, 2010). Had time allowed, a mixed method may have been of use, completing the data collection by interviewing or re-distributing the questionnaire after some time. According to Nieswiadomy (1993) using more than one method of measuring the variables of interest should not only produce similar or close to identical results, this would in turn also increase the confidence in the study findings.

Due to the fact that the authors could not find a previously validated questionnaire covering all the items of interest, a questionnaire was designed for this particular study, and a validation process was attempted with a small amount of nursing students as similar to the target population of the study as possible. The questionnaire was constructed in English which is the official language of Ghana. English is not the mother tongue of either of the authors, which may or may not have affected the clarity of the items in the questionnaire. To minimize possible linguistic misunderstandings, the questionnaire was proof read by an English speaking person prior to it being tested by four nursing students from Ghana. Throughout the questionnaire FGM is referred to as FGC in an attempt to be culturally sensitive; this may have led the respondents to think that the questions were not regarding FGM but rather some other type of circumcision.

The knowledge part will be presented to the respondent first, since these questions are easier to answer than the more provocative questions on attitude. This because Olsson and Sörensen (2007) recommend that the questions of a questionnaire should be in a logical order and that simple questions that are easy to answer should come before the more difficult ones. Therefore the questionnaire may be perceived as less offensive thus minimizing the risk of participants dropping out or skipping large sections of the questionnaire. There are also plenty of opportunities throughout the questionnaire for the participant to comment and point out questions that were difficult to understand and or answer. Basic demographic information was also included, it may have been of interest to include more specific demographic information,
for example which part of Ghana the respondents originate from, but at the same time these questions may have decreased the perceived anonymity thus decreasing the response rate.

To make the collected data standardized and easy to interpret, closed questions were used. Some of the questions were not completely closed since they had the option of “other” with space to leave comments and thus make a personal response, mainly because the authors were not certain that all the possible options were already represented. According to Nieswiadomy (1993) it is essential that the response categories of the closed-ended questions must be both collectively exhaustive as well as mutually exclusive, meaning all possible answers are provided and that there is no overlap between the options. A structured questionnaire was constructed, with special attention to the simple and easy-to-understand phrasing of the questions and a sufficient spread of options for the respondents to select; therefore, they could answer all the questions in a way that they felt appropriate. There was always an “uncertain” option to select so that the respondent would not feel forced to select an option they thought inappropriate, in accordance with the recommendations of Brancato et al. (2006). The items in the questionnaire was balanced by an attempt to have the same amount of positive and negative statements on FGC, this to avoid respondents ticking the first option no matter what their opinion is or agreeing more often than they would like to (Brancato et al., 2006), however this resulted in a certain amount of double negative questions, which is not advisable since they are difficult to reply to and may cause confusion (Nieswiadomy, 1993).

In all returned questionnaires, most of the items were answered both in the knowledge and the attitude section. In the knowledge section no more than three respondents had chosen to skip the same item and in the attitude section no more than four respondents skipped the same item. If there was more than one answer ticked per item where it was not allowed, there were no points registered, meaning double answers on one particular item were registered in the same way as a blank answer on the same particular item. Handing out pens and not pencils to the respondents together with the questionnaire may have affected the tendency to leave double answers, as the respondents could not easily erase and change their already ticked answers. One respondent commented on item O. in the knowledge section, stating it was unclear yet the person did still tick the correct answer.

Polit and Beck (2008) write that compliance may increase if the person handing out the questionnaires resembles the respondents in regards to ethnicity, race, et cetera, or if the respondents for some other reason are confident in this person. Therefore, it may have been constructive if the principal or a teacher had cooperated in the presentation of the study and in
handing out the questionnaires. This not being possible, the questionnaires were handed out by the authors alone, which may have been constructive in the sense that it became clearer that the study was not a test conducted by the Atibie Midwifery and Nursing Training School.

Due to the lack of time, it was not possible to let the students fill out the questionnaires during class. Therefore the questionnaires were handed out one day and collected the next day which gave the students a chance to ask each other or to look for the correct answers elsewhere, which may have affected the results. The students were assured it was not a test.

It was decided that 45 students were to be included in the study, thus including more than 40% (45 out of 104) of the target population. One questionnaire was never returned and one was returned empty thus 43 respondents were included in the study. The results may or may not have been different with a larger sample, as the homogeneity of the group is not known, especially concerning the origin of the students sampled. Since there are no simple rules for determining sample size, one must consider the homogeneity of the population, the degree of precision desired and the type of sampling procedure that will be used. A small sample size may be sufficient if the population is very homogeneous or alike on all variables other than the one being studied. However a small sample size may not accurately represent the population, decreasing the generalizability of the study findings (Nieswiadomy, 1993).

Because the respondents were randomly selected and 44 out of 45 questionnaires were returned, selection bias is not a concern, assuming the same students that were given the questionnaires filled out and returned them. Since the class of final year students is substantially larger than our sample, there is a risk of sampling error, seeing it is not possible to know for certain that the random selection does not differ from that of data obtained from the entire population.

According to Trost (2007) it is advisable to manually register data as long as the sample size is smaller than 50 respondents. All data was registered and analyzed manually, minimizing the risk of error with double-checking by both authors. The questionnaire cannot be graded with points, therefore the possibilities of statistical data analysis are limited.

8.2 Discussion of results

Out of all the students that completed the questionnaire, 40 out of 43 (93 %) were attending their final semester, meaning within a short period of time they will be practicing as nurses in hospitals and health care clinics all over the country. In the section where the respondents were
asked to define how much, none, little, some or a lot, they have learned about FGC from different sources, they ranked at school in class first followed by television and radio. A Nigerian study found a statistically significant decrease in the intention to perform FGC on daughters after a mass media intervention, however an even larger decrease resulted from a combination of the mass media intervention and community activities, thus indicating the importance of exposure to consistent messages from a variety of sources to facilitate the intended behavioral change (Babalola et al., 2006). Allam et al. (2001) found in their study in Egypt that television and radio were the main sources of information concerning FGM for university students, followed by relatives and friends (ibid.). Among the nursing students in Ghana the authors found that only four out of 43 respondents ticked that they had learned about FGM from family members and only two out of 43 respondents ticked from friends.

In stating the reasons for FGC being conducted, cultural and traditional were the highest ranking, followed by pressure from society and to ensure virginity, (see figure 1) which concurs with WHO (1998). According to Sheldon and Wilkinson (1998), the decision whether or not to undergo female genital mutilation is effected by pressure from family and friends and may have important social consequences for the woman. It is a common belief that FGM is of religious importance, which was also indicated in our results, putting religion in fifth place. However, FGM dates back further than most major religions (Little, 2003). It is important that health care professionals understand why a person behaves in a particular way if they are to begin to influence change (Ball, 2008).

**Discussion of the results from the knowledge section**

On the question of whether there are different types of FGC only 13 out of 43 (30 %) knew the correct answer, and 11 out of 43 (26 %) were uncertain. In Ghana it is mostly grade II FGM that is conducted, which may be a part of the reason why the students do not know of the presence of different types. However other studies have shown there to be confusion on the matter among health care professionals (Leye et al., 2008). This information is contradicting Bjällkander’s (2008) statement saying that part of the reasons stated by health care professionals in why they do not accept results from research on FGM in other countries is because the FGM itself is different in other countries.
The knowledge of legislation regarding FGC

The results of the knowledge section show some confusion among the students whether FGC is legal or illegal in both Ghana and other countries. Out of 43 respondents, 32 (74 %) knew that there are laws against FGC in Ghana, 6 (14 %) thought there to be none, and 4 (9 %) were uncertain. Out of 43 respondents, 28 (65 %) were uncertain regarding whether there are laws against FGC in other countries, and 12 (28 %) believed that FGC was legal in Ghana. Some of the students that did not know FGC to be illegal in Ghana had still stated that there are no laws against FGC in Ghana and vice versa, indicating that the questions may have been misunderstood or confusing to some. However, studies in Europe among health care professionals have had similar results in lacking knowledge of the legal status of FGC in their home country, the laws not being clear to them, at times resulting in illegal and ethically questionable treatment of patients (Leye et al., 2008). According to Livermore, Monteiro and Rymer (2007), less than 60 % of the female patients asked in Kenya knew that FGM was illegal. According to WHO it is important that health care professionals know the legal status as well as the international consensus on the matter in order to give appropriate care (WHO, n.d.). Since FGM became illegal in Ghana there has been a steady decline in the practice. However it is unclear whether the decline is actually significantly associated with the legal approach or if people are less likely to admit to partaking in the practice once it became illegal (Oduro et al., 2006). People may also avoid seeking medical attention for complications relating to FGM seeing it is illegal (Livermore, Monteiro & Rymer, 2007).

Health consequences of FGC

On the question of whether uncircumcised women get more infections, 10 out of 43 (23 %) of the students wrongly believe it to be so. Three students chose not to answer. Out of the 40 respondents that chose to answer the question, nine (21 %) believed that circumcised women are less likely to catch sexually transmitted infections. It has been shown that circumcised women are more likely to be infected with HIV than uncircumcised women, not only from the unhygienic initiation itself but from vaginal tearing from forceful intercourse (Brady, 1999). In a Kenyan study it was found that less than one third of the female patient respondents were aware of the associated risk between FGM and HIV transmission (Livermore, Monteiro & Rymer, 2007). However only five out of 43 (12 %) regard FGC as promoting cleanliness. Further, 25 out of 43 (58 %) of the students wrongly believed that FGC can cause cancer, nine (21 %) were uncertain. It is important to keep in mind that the respondents always have a 50 %
chance to pick the right answer, no matter what their knowledge is. WHO points out that health care professionals are respected and listened to and therefore have a major role to play in promoting education on FGM. It is also of importance that the health care professionals know not only the reasons for FGM being practiced but also be aware that it is a gender and human rights issue and it is recommended that nurses and midwives integrate education and counseling against FGM in their daily work, as well as supporting the individuals and families that have been subjected to FGM (WHO, n.d.). Allam et al. (2001) found among Egyptian university students that the single most important item independently associated with the condoning of FGM was disagreeing that FGM is usually followed by complications, followed by the belief that FGM is not a harmful procedure. The higher the knowledge of the risks of FGM was, the more likely the respondent was to be against the practice.

**FGC and childbirth**

Out of 43 respondents, ten (23%) believed that being circumcised makes no difference in childbirth and 30 (70%) believed it does. Nine out of 43 (21%) also believed that FGC does not prolong labor during childbirth. Type II being the most commonly practiced grade of FGC in Ghana, which should not normally affect the labor process, it is understandable that a large proportion of the students are not aware of this effect of FGC. However, grade II mutilations may unintentionally result in an inffibulations-like state (Iregbulem, 1980; Diejomaoh & Faal, 1981), which theoretically may result in a similar effect in childbirth as would an intentional grade III mutilation. Grade II mutilation may also cause severe bleeding during childbirth due to the tearing of the weaker scar tissue of the clitoral artery, meaning a difference in childbirth is present though perhaps not as great as in grade III mutilations (Persson et al., 2007). However all (100%) of the students at Atibie Midwifery and Nursing Training School knew that FGC may cause severe bleeding, which may be partly due to the fact that this is mentioned in the school literature by Werner, Thuman, Maxwell & Pearson (1993) and in class at school is rated first in places where the respondents claim to have learned about FGC. In an Egyptian study, less than 35% of the women asked knew that FGC can lead to death as the result of hemorrhage (Afifi & von Bothmer, 2007). According to Swedish International Development Cooperation Agency [SIDA], gender-based violence is a violation of human rights and FGM is one type of gender-based violence, therefore awareness and knowledge about the linkages between FGM and sexual and reproductive ill-health and morbidity is important. FGM is based
on conservative conceptions about women’s sexuality and reproduction, this must be challenged (Gender Secretariat, 2007).

**Discussion of the results of the attitude section**

To facilitate the discussion of the results on the attitude subscale, strongly agree and agree have been added together as well as disagree and strongly disagree.

Considering the low amount of blank responses and uncertain responses, this may indicate the nature of the subject being less sensitive than initially thought. Though the amount is small, a few students have very liberal attitudes towards FGM, which may be partly due to the fact that the students at this school are from many different parts of the country, including the north of Ghana (personal communication with nursing tutor L. Badu, May 6th 2011) where FGM is widely practiced (Kadri, 1986 cited in WHO, 1998).

On the question whether FGC should be voluntary, 25 respondents (58 %) agreed or strongly agreed that FGC should be voluntary and three out of 43 (7 %) were uncertain. The question may be interpreted two ways; each person should decide in the matter, meaning no laws should regulate the practice – which seven out of 43 (16 %) stated – or on the other hand, it may be interpreted as a question regarding the performance of FGM on small children or young adults against their will. However 38 out of 43 (88 %) believed that it is not right to circumcise young children, three (7 %) disagreed, two chose not to answer. Had the data collection been conducted through interviewing or a questionnaire with open ended questions, the intended answer may have been clearer.

**The respect towards circumcised women**

When asked if they respect uncircumcised and circumcised women equally, 26 out of 43 (60 %) claimed they do, 12 (28 %) claimed they do not and five (12 %) were uncertain or chose not to answer, see figure 4.
Figure 4. The figure shows how many of the respondents ticked each option on this particular item.

Lockhat (2004) found that health care professionals had poor understanding and provided inappropriate care for genitaly mutilated women. The health care professionals were also found to feel sorry for the mutilated women and reacting with disgust upon learning of their status and Lockhat recommends more education on the practice and greater sensitivity and understanding of the cultural issues to avoid stereotyping and ensure a respectful treatment.

**The sexual and psychological aspects of FGC**

When asked regarding their perceptions of uncircumcised women's self-control, eight out of 43 (19 %) answered that an uncircumcised woman has no self-control and four chose not to answer, meaning a majority of 30 respondents (70 %) disagreed. Out of 43 respondents 26 (60 %) believed that a circumcised woman is no longer a whole woman, but the questionnaire does not specify whether it is in regards of physically being a whole woman or mentally. Four out of 43 (9 %) believed that if the clitoris is not removed a woman cannot please a man. However, only two out of 43 (5 %) believed that men only like circumcised women. When asked, Ethiopian women thought that if men openly stated a preference to marry uncircumcised women, FGM would probably cease. Some of the women also believed that now that people are more free to marry whomever they want, FGM may become less important for marital reasons since it is no longer necessarily in the best interest of the family (Missalidis & Gebre-Medhin, 2000). In a mixed method intervention study in Nigeria with over 400 respondents, out of the men and women asked whether they wanted FGM stopped, around half of both sexes did not
want it to cease prior to the health education intervention. Out of the women asked whether they regretted being circumcised, 85% had no regrets and 12% regretted being circumcised (Asekun-Olarinmoye & Amusan, 2008). In a study in Ghana, based on interviewing 70 women who had undergone FGM with post delivery complications, it was found that 43% had no regrets and 57% regretted being circumcised (Baffour Awuah, 2008). Reasons given for regretting being circumcised were complications they experienced during labor and delivery. Reasons given for not regretting were that they wanted to be respected by their husbands and also to enhance fertility. Furthermore, all of the respondents disagreed that they would encourage the practice of FGM (ibid.).

The willingness to circumcise future daughters

None of the students at Atibie Midwifery and Nursing Training School stated they would have their daughters undergo FGC, excluding three who chose not to answer. In a recent Nigerian study 43% of the respondents stated that they would have their daughters undergo FGM (Asekun-Olarinmoye and Amusan, 2008) and in a study conducted in Kenya 96% of the respondents claimed they would not circumcise future daughters, the main reason being health risks (Livermore, Monteiro & Rymer, 2007). In an Egyptian study, over 75% of the women asked intended to circumcise their daughters (Afifi & von Bothmer, 2007). In a Flemish study (Leye et al., 2008) gynecologists were asked whether they attempted to persuade their pregnant patients that were mutilated not to mutilate their future daughters, only 35% did and 65% stated they would attempt no form of prevention. The main reasons given for the above were communication problems, the language barrier or out of cultural respect. In the previously mentioned Nigerian study, a statistically significant correlation between formal education level and the willingness to circumcise their daughters was shown (Asekun-Olarinmoye & Amusan, 2008). Livermore, Monteiro & Rymer (2007) found that the parents of children that had undergone FGM were also the ones with higher awareness of the health complications of FGM.

8.3 Conclusion

The outcome of this study indicates that nursing students at Atibie Midwifery and Nursing Training School in Ghana have a fairly high knowledge of FGM and FGM-related complications. Further, the students seem to have very mixed attitudes towards FGM, the
majority having negative attitudes towards the practice but still a small part of the study population does have a more traditional point of view.

8.4 Clinical impact

Although small, the results of this study describe the level of knowledge among the nursing students at the Atibie Midwifery and Nursing Training School in Ghana, which will in turn be of importance in the work against FGM and the spreading of information thereof. Knowing the attitudes of the future nurses in a country where genital mutilation is common practice is crucial in the work against the occurrence of FGM. Although, since most mutilated women live in countries with limited infrastructure and availability of health care, they may not be in contact with nurses very often - some may also hesitate to seek medical attention due to the legal status of the practice.

8.5 Proposal on further research development

It may be of interest to study the correlation between the attitude and knowledge of the nursing students in future research. More studies on the subject may shed some light on ways to abolish FGM.
9 ACKNOWLEDGEMENTS

The authors are grateful to Mrs. Paulina Osabutay, principal of Atibie Midwifery and Nursing School for her warm welcoming and assistance in data collection. The financial and educational support of Swedish International Development Cooperation Agency [SIDA] is also greatly appreciated. The authors are also grateful for the support and advice of Ulla Thörnblom, Jennica Wallenborg of Statistics Sweden, as well as Viktor Ljöstad, Marcus Johansson, Niklas Östergren and Sofi Avén for their support, and Shar Nordstrom, Certified Shorthand Reporter, for proofreading.
10 REFERENCES


APPENDIX 1 – INFORMATION LETTER

The Red Cross University College

To the head of the department of
Atibie Midwifery and Nurses Training School

Inquiry regarding data collection for a bachelor’s essay.

We, Johanna Avén and Christel Jacobson, are nursing students at the Red Cross University College in Stockholm, Sweden. As part of the education we are to perform a bachelor’s essay comprising ten study weeks, i.e. 15 ECTS points, within the main field of study, nursing science. Our aim is to perform a study within the frame of this bachelor’s project. Preliminary name for the study is:

Nursing student’s knowledge and attitudes towards female genital mutilation.

The overall research question for the study is to study nursing students in Ghana’s knowledge of and attitudes towards female genital mutilation.

Data collection will be done using questionnaires filled out by approximately forty-five students in the last semester of nursing college.

Time table: Data collection is planned to start April 11th, 2011 and to be finished April 22nd, 2011.

The Study is approved by the Red Cross University review board for empirical student projects.

We, Johanna Avén and Christel Jacobson, undertake to verbally and in writing inform staff and students in the concerned activity. Further, we undertake to handle gathered data confidentially. From all study subjects informed consent will be collected before their participation. Information from the study subjects will not be identifiable. All results will be presented so that single persons will not be identified. The study results will be reported back to the concerned parties.

Thus, we request permission to perform the above described study in:

Atibie Midwifery and Nurses Training School.

Stockholm April 7th, 2011.

Johanna Avén  Christel Jacobson
joavvk09@rkh.se  chjavk09@rkh.se

Red Cross University College, Box 55 676, S-102 15 Stockholm, Sweden, +468 58751600
APPENDIX 2 - QUESTIONNAIRE

General information for you as a participant in the study *Nursing Students’ Knowledge and Attitude towards Female Genital Circumcision – in Ghana.*

The aim of this study is to describe nursing students' knowledge and attitude towards female genital circumcision in Ghana.

We will conduct a Minor Field Study which is sponsored by SIDA (Styrelsen för Internationellt samarbete, the Committee for International Cooperation). A Minor Field Study gives bachelor/master students the opportunity to conduct a study with a specific topic in a country outside of Europe.

You will be asked to complete this questionnaire that contains 49 short questions. The participation is completely voluntary and anonymous and you have the right to refrain from participating at any time. By completing and returning the questionnaire you are giving your informed consent to participate. The information gathered will be kept anonymously and the results will be presented in our thesis.

We appreciate your participation,

Johanna Avén
joavvk09@rkh.se
+46-722 353 011

Christel Jacobson
chjavk09@rkh.se
+46-700 432 720
Questionnaire

Questionnaire of knowledge and attitudes regarding female genital circumcision

I am informed that I have the right to refrain from participation in this study at any time. Further my participation in this study is anonymous. By returning this form I agree to participate in this study on the terms specified above.

You will be asked to answer the following 47 questions on the following 8 pages. These are questions regarding Female Genital Circumcision, there will be no questions regarding your personal status in this matter. Please mark the alternative that is in most agreement with your opinion and mark "uncertain" rather than leaving any question unanswered.

This is not a test; it is a questionnaire on your Opinion.

There will be room at the end of the questionnaire for comments.

Please enjoy!

Demographic information

1 How old are you?

2 Are you male or female?
   1 [ ] Male
   2 [ ] Female

3 How many semesters of nursing school have you completed? Not counting the current one.

Please continue on the next page
4 From where did you learn about Female Genital Circumcision?
Please tick the boxes that best describe where you have learned of Female Genital Circumcision and how much you have learned. Tick “Not sure” if you do not understand the meaning of the option.

<table>
<thead>
<tr>
<th>Option</th>
<th>None</th>
<th>Little</th>
<th>Some</th>
<th>A lot</th>
<th>Not sure</th>
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<tr>
<td>a. Family members</td>
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<td>b. Friends</td>
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<tr>
<td>c. In class at school</td>
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<td>d. Doctors/nurses</td>
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<td>e. Community health education</td>
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<td>f. Television</td>
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<td>g. Newspapers and magazines</td>
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<td>h. Radio</td>
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<td>i. Bulletinboards/Posters</td>
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<td>j. Internet</td>
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<td>k. Other, Please specify in box:</td>
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Please continue on the next page
Please review and answer the following questions as best as you can by marking "True" or "False" or mark "Uncertain" if you are not sure. This is not a test that will be graded; it is to estimate the level of knowledge. Please use your own knowledge and do not look for answers elsewhere.

|   | Knowledge Scale. Please review and answer the following questions as best as you can by marking "True" or "False" or mark "Uncertain" if you are not sure. This is not a test that will be graded; it is to estimate the level of knowledge. Please use your own knowledge and do not look for answers elsewhere. |
|---|---|---|---|
| a. | There are laws against Female genital circumcision in Ghana | □ | □ | □ |
| b. | There are laws against Female Genital circumcision in other countries | □ | □ | □ |
| c. | Uncircumcised women get more infections | □ | □ | □ |
| d. | Female Genital Circumcision can cause infertility | □ | □ | □ |
| e. | There are different types of female genital circumcision | □ | □ | □ |
| f. | Female Genital Circumcision is legal in Ghana | □ | □ | □ |
| g. | Female Genital Circumcision can cause severe bleeding | □ | □ | □ |
| h. | Circumcised women are more likely to suffer from urinary incontinence | □ | □ | □ |
| i. | Female Genital Circumcision is not dangerous | □ | □ | □ |
| j. | Female Genital Circumcision can cause cancer | □ | □ | □ |
| k. | Being circumcised makes no difference during childbirth | □ | □ | □ |
| l. | Female Genital Circumcision can give lethal complications | □ | □ | □ |
| m. | If the clitoris is not removed it will grow large like a penis | □ | □ | □ |
Knowledge Scale continued. Please use your own knowledge and do not look for answers elsewhere.

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<tr>
<th></th>
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<th>True</th>
<th>False</th>
<th>Uncertain</th>
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<tr>
<td>n. If the clitoris is not removed the baby will die during delivery</td>
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<td>o. Circumcised women are less likely to catch sexually transmitted infections</td>
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<td>p. Infants of uncircumcised mothers are more likely to die than those of circumcised mothers</td>
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<td>q. Female Genital Circumcision improves fertility</td>
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<td>r. All women in Ghana are circumcised</td>
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<td>s. Female Genital Circumcision can prolong labour during childbirth</td>
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If any of the questions were unclear, please tell us which one below.

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<thead>
<tr>
<th></th>
<th>Attitudes related to Female Genital Circumcision. <em>Please tick the option that best agrees with your opinion, tick “Uncertain” if you are not sure.</em></th>
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</thead>
<tbody>
<tr>
<td>a.</td>
<td>One is not a proper woman until you are circumcised</td>
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<tr>
<td>b.</td>
<td>Female Genital Circumcision should be illegal</td>
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<tr>
<td>c.</td>
<td>An uncircumcised woman is happier</td>
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<tr>
<td>d.</td>
<td>It is not right to circumcise young children</td>
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<tr>
<td>e.</td>
<td>Female Genital Circumcision should be voluntary</td>
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<td>f.</td>
<td>If the clitoris is not removed, a woman cannot please a man</td>
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<td>g.</td>
<td>Female Genital Circumcision is unnecessary</td>
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<td>h.</td>
<td>Each family should decide if they want to circumcise or not</td>
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<tr>
<td>i.</td>
<td>It is in the woman’s best interest to be circumcised</td>
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<tr>
<td>j.</td>
<td>The removal of the clitoris promotes cleanliness</td>
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<tr>
<td>k.</td>
<td>No woman should be circumcised</td>
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<tr>
<td>l.</td>
<td>People who circumcise their children should be prosecuted</td>
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<tr>
<td>Attitudes related to Female Genital Circumcision continued. Please tick the option that best agrees with your opinion, tick &quot;Uncertain&quot; if you are not sure.</td>
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<tr>
<td><strong>m.</strong> I talk to my friends about Female Genital Circumcision</td>
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<tr>
<td><strong>n.</strong> A circumcised woman is no longer a whole woman</td>
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<td><strong>o.</strong> Without circumcision a woman is unable to fulfil her intended role in marriage</td>
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<td><strong>p.</strong> It is important to talk about Female Genital Circumcision</td>
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<tr>
<td><strong>q.</strong> I respect uncircumcised and circumcised women equally</td>
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<tr>
<td><strong>r.</strong> Many people talk about Female Genital Circumcision</td>
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<tr>
<td><strong>s.</strong> An uncircumcised woman has no self control</td>
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<tr>
<td><strong>t.</strong> Men only like circumcised women</td>
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<tr>
<td><strong>u.</strong> I respect the people that perform the circumcisions on women</td>
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<tr>
<td><strong>v.</strong> Female Genital Circumcision is important</td>
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<tr>
<td><strong>x.</strong> I would circumcise my daughters</td>
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</tbody>
</table>
7  The purpose of Female Genital Circumcision is: (tick one or several options)

01 ☐ To give birth
02 ☐ Cultural
03 ☐ Aesthetics
04 ☐ Cleanliness
05 ☐ Traditional
06 ☐ Religious
07 ☐ Medical
08 ☐ To please the man sexually
09 ☐ To ensure virginity
10 ☐ Because the man wants to
11 ☐ Because the woman wants to
12 ☐ Pressure from society

13 ☐ Other, please specify in box: ____________________________

If any of the questions were unclear, please tell us which one below.

_________________________________________________________________
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If you have comments you would like to give regarding this questionnaire or regarding the study itself, please do so below.

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Please return this form in an enclosed envelope to Johanna and Christel.

Thank you for your participation!