

**PREVALENCE OF POST TRAUMATIC STRESS DISORDER AMONG MAASAI
GIRLS
WHO HAVE UNDERGONE FEMALE GENITAL MUTILATION AS A PRE-
REQUISITE
TO EARLY MARRIAGE IN TRANS-MARA AND KAJIADO DISTRICTS –
KENYA //**

**A Dissertation Presented In Part Fulfillment for the Award of the Degree,
Master of Science in Clinical Psychology**

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BY

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DECLARATION

I, Reginah Senke Ndiema declare that this dissertation is my original work carried out in part fulfillment of the requirement for the award of the degree of Master of Science in Clinical Psychology of the University of Nairobi under the supervision and guidance of staff of the Department of Psychiatry, University of Nairobi. I further declare that this dissertation has not been submitted for the award of any other degree or to any other university.

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Dedication

To all Maasai girls.

TABLE OF CONTENT

ABBREVIATIONS AND ACRONYMS -----	vii
ABSTRACT -----	viii
CHAPTER 1 INTRODUCTION -----	1
1.1 Background-----	1
1.1.1 Female genital cutting-----	1
1.1.2 Prevalence-----	2
1.1.3 The medical consequences-----	3
1.2 Post Traumatic Stress Disorder-----	3
1.3 Research Methods-----	5
1.4 Objectives -----	5
1.4.1 General Objectives-----	5
1.4.2 Specific Objectives-----	5
1.5 Study Justification-----	6
CHAPTER 2 LITERATURE REVIEW -----	7
2.1 Introduction-----	7
2.2 Post Traumatic Stress Disorder PTSD-----	8
2.3 Risk Factors for PTSD-----	9
2.4 Previous Studies on PTSD-----	11
2.5 Instruments-----	12
2.6 Impact of Events Scale-----	12
CHAPTER 3 METHODOLOGY -----	13
3.1 Study Hypothesis-----	13
3.2 Research Design-----	13
3.3 Study Site-----	13
3.4 Study Population and Sample-----	15
3.5 Data Collection-----	15
3.6 Study Instruments-----	16
3.6.1 Socio Demographic Profiles-----	16
3.6.2 Impact of event Scale Revised-----	17
3.6.3 Taped Transcribed FDG-----	17
3.6.4 Data Management and Presentation-----	17
3.7 Ethical Consideration-----	18
Flow Chart-----	19
CHAPTER 4 RESULTS -----	20
4.1 SOCIO DEMOGRAPHICS-----	20
4.2 POST TRAUMATIC STRESS DISORDER ANALYSIS USING IES-R SCALE-----	23
4.3 FOCUS GROUP DISCUSSIONS-----	34

CHAPTER 5	DISCUSSION -----	42
	5.1 Introduction-----	42
	5.2 The Experiences of FGM-----	42
	5.3 Prevalence of PTSD-----	45
	5.4 Age-----	46
	5.5 Family type gender and birth position-----	46
	5.6 Girls level of education-----	46
	5.7 Parents level of education-----	47
	5.8 History of mental illness-----	48
	5.9 Other Traumatic events-----	48
	6.0 Word to describe feeling-----	48
	6.1 Methodological consideration-----	48
	6.2 Theoretical Implications-----	49
	6.3 Practical Implications-----	49
	6.4 Conclusion-----	49
	6.5 Recommendations-----	50
	BUDGET-----	51
REFERENCES -----		52
APPENDICES		
Appendix 1 Consent forms for participants-----		59
Appendix 1A Consent Explanations for the Institution-----		59
Consent Forms-----		61
Appendix 1C Assent Explanation for Research Respondents-----		62
Appendix 1D Kiswahili translation for participants-----		64
Appendix 2 Instruments-----		66
Instrument 2A Socio demographics-----		66
Instrument 2B Impact of Event Scale-R-----		68
Instrument 2C Interview -Focused Group Discussion-----		70
Clearance Ethics Committee-----		73
Research Permit-----		74

Abbreviations

1. DHS	Demographic and Health Surveys
2. DSM IV-	Diagnostic and Statistical Manual of Mental Disorders.
3. FGM	Female genital mutilation
4. FGC	Female genital cutting
5. FGD	Focus group discussions
5. FGM/C	Female genital mutilation/ cutting
6. IES-R	Impact of Event Scale-Revised
7. KNH	Kenyatta National Hospital
8. MINI	Mini International Neuropsychiatry Interview
9. PTSD	Post Traumatic Stress Disorder
10. UNCHR	United Nations Commission on Human Rights
11. UNICEF	United Nations Children Education Fund
12. UON	University of Nairobi
13. WHO	World Health Organization

Abstract

The impact of traumatic events on the physical health of children and adults is well researched and recognized, but the psychological consequences have only recently become a topic of research. While other traumatic experiences of childhood and adolescence are well studied, the prevalence of Post Traumatic Stress Disorder among girls who have undergone FGM in Kenya requires investigations. This study is an attempt to provide research based evidence of FGM to help the Maasai community and any other FGM practicing community understand the psychological effects of FGM on those who undergo it.

Study objectives: This study sought to establish the prevalence of Post Traumatic Stress Disorder among Maasai girls who have undergone FGM as a pre-requisite to early marriage in Kajiado and Transmara Districts and also to document the subjective experiences of FGM among Maasai girls while describing their social demographic profiles

Design of Study: This was a descriptive, quantitative and qualitative study that adopted a population approach.

Settings: AIC Girls Kajiado

St Joseph's Girls Kilgoris

Enoosaen Girls Kilgoris

Poroko Secondary School Kilgoris

Kilgoris Girls Secondary School

Subjects: Children and adolescents between the ages of 10-18 who had undergone FGM and were willing to participate in the study

Research Instruments: Three research instruments were used: A socio-demographic profile designed by the researcher, Impact of Events Scale- Revised, and an Interview on Focus Group Discussions

Results: All the respondents studied except one presented with PTSD symptoms. 1 had no symptoms, 10 had mild PTSD, 24 had moderate PTSD and 42 had severe PTSD. The prevalence of PTSD was statistically significant with low education, having siblings and also the word fear. Many of the respondents were forced to undergo FGM.

Conclusion: Post Traumatic Stress Disorder is common in Maasai girls who have undergone FGM and is significantly related to lower education, having sibling and the word fear. Intervention is necessary to help alleviate the long term negative consequences one of them being Post Traumatic Stress Disorder.

CHAPTER 1: INTRODUCTION

In recent years, mental health professionals and researchers have become more interested in understanding the impact and treatment of the psychological effect of events that are traumatic in the lives of children and adolescents (1).

A study on psychological trauma reveals that childhood trauma is particularly significant because uncontrollable, terrifying experiences may have their most profound effects when the central nervous system and cognitive functions have not yet fully matured, leading to global impairment that may be manifested in adulthood in psychopathological conditions (2).

1.1 Background

1.1.1 Female genital cutting / Female genital circumcision / Female genital mutilation

Female genital cutting (FGC) is also known as female genital mutilation (FGM) or female circumcision. The World Health Organization (WHO) defines FGM as all procedures involving partial or total removal of the external female genitalia or other injury to the female genital organs whether for cultural, religious or other non-therapeutic reasons (3). Amnesty International estimates that 130 million women and girls have undergone the practice and over 2 million procedures are performed every year (4). WHO classifies FGM into four categories: Type I, II, III, and IV (3). Type I involves the removal or splitting of the clitoral hood with or without excision of the clitoris. Type II is the excision of the clitoris with partial or total excision of the labia minora. Type III is the excision of all the external genitalia and stitching/narrowing of the vaginal opening (infibulations). There are other forms that are collectively referred to as Type IV and may not involve any tissue removal at all but include a diverse range of practices such as pricking the clitoris with needles, burning or scarring the genitals as well as ripping or tearing of the vagina or introducing herbs into the vagina to cause bleeding and a narrowed vaginal opening.

FGC is defined as a violation of human rights (5). This practice violates girls' and women's basic human rights, denying them their physical and mental integrity, their right to freedom from violence and discrimination, and in the extreme cases, their lives.

International Conventions against FGM include: The 1979 Convention on the 'Elimination of All Forms of Discrimination against Women', which was an important milestone in recognizing the human rights implications of FGC; The 1989 Convention on the Rights of the Child, which identifies the procedure as both a harmful traditional practice that compromises a child's right to the highest attainable standard of health and a form of violence; 'A World Fit for Children'- the outcome document of the 2002 United Nations General Assembly Special Session for Children, which explicitly calls for an end to harmful traditional or customary practices, such as early marriage and FGC. Many countries have outlawed female genital mutilation (6). The Children Act 2001 represents the Government of Kenya's efforts to domesticate UNCRC position (7). Nevertheless, FGC is still performed by many ethnic groups.

1.1.2 Prevalence of FGC in Kenya

According to research findings in Kenya, FGM is practiced in more than fifty percent of Kenya's districts. The 1998 Demographic and Health Survey (DHS) indicate that 38% of Kenyan women age 15-19 have been circumcised. Circumcision is much more common in rural areas and among women who have received less education (8). Circumcision among the Kisii women age 15-19 is nearly universal (97%) and very common among the Maasai (89%), Kalenjin (62%), Taita Taveta (59%). The percentages are lower among the Kikuyu (43%), Kamba (33%) and Miji Kenda/ Swahili (12%).

The Maasai, an indigenous African ethnic group of semi-nomadic people located in Kenya and northern Tanzania routinely practice FGC (10). Nearly 90 percent of Maasai girls and women over the age of 14 years have undergone FGC (11). Circumcision of females among the Maasai is considered essential for correct sexual behaviour and fertility (12). Female circumcision or *emorata* is part of an elaborate rite of passage ritual in which girls are given instructions and advice pertaining to their new roles, as they are then said to have come of age and become women, ready for marriage. The circumcision procedure is usually performed by an invited traditional practitioner, usually an elderly woman with great experience. Girls ready for circumcision wear dark clothing, paint their faces with markings, and then cover their faces on completion of the ceremony (10).

Literature indicates that the Maasai perform Type II FGC (11). It is performed at puberty and is an indicator of both physical maturity and a change in the girl's social status. A circumcised Maasai girl is ready for marriage and childbearing. Girls are married usually within one year of circumcision, normally to a pre-determined partner (12).

1.1.3 The medical consequences of FGM/FGC

The medical consequences of FGC are widely investigated (13). Prohibition has led to FGC going underground, at times with people who have had no medical or traditional training performing the cutting without anesthetics, sterilization or the use of proper medical instruments. The procedure, when performed without any anesthetic, can lead to death through shock from immense pain or excessive bleeding. The failure to use sterile medical instruments may lead to infections (14). Other serious medical consequences include urinary and reproductive tract infections, various forms of scarring and infertility. Having sexual intercourse for the first time is also reported to be extremely painful among circumcised women (15). A study by WHO (13) found that all types of FGC pose increased risk of death to the baby and increased risks of cesarean sections and postpartum hemorrhage among women. Attempts at qualifying and quantifying the impact of FGC on psychological health have begun to emerge. Case studies mention phobias, depression and sexual disorders (16). Post Traumatic Stress Disorder (PTSD) has also been found to be significantly higher among circumcised women (17) and ritually circumcised boys (18).

1.2 Post Traumatic Stress Disorder (PTSD)

The American Psychiatric Association (19) defines PTSD as a clinical syndrome characterized by the development of pathologically intense reactions following exposure to extremely traumatic stressors. The central features of PTSD described in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) of the American Psychiatric Association include re-experiencing the traumatic event, persistent avoidance of associated stimuli and heightened physiological arousal. Dissocializing experiences, recurrent or

prolonged episodes of depression, anxiety, guilt, shame or hostility are also common. Symptoms may manifest immediately or after a delay of several months or even years, however a diagnosis of PTSD can only be made if the symptoms have been present for more than four weeks. In children, disorganized or agitated behaviour may occur as immediate responses to trauma, while long term effects may include behavioural re-enactment of the event, repetitive play or persistent nightmares. Some emerging literature indicates that PTSD is universal and is prevalent among traumatized populations in the African continent including Kenya (20, 21).

There is therefore need to extend our understanding on the prevalence of PTSD among other categories of traumatized people such as circumcised girls who have not received literal attention.

From the perspective of Maasai girls who have undergone circumcision, all the elements pertaining to the development of PTSD listed in the DSM-IV apply (17). The clitoris is one of the organs that have been found to have an extensive network of sensory nerves. Women who have undergone clitoridectomy and other forms of FGC have described it as an unbearable experience characterized by extreme pain especially when conducted without anesthesia, which is often the case; it is an event that is beyond normal human experience. (DSM-IV) criterion of exposure to extreme traumatic stress)

Because the girls are usually held immobilized during the procedure there is often a feeling of intense fear, helplessness, and horror. There have been reports of death caused by neurogenic shock, during the procedure.

Circumcision has been described as involving an imbalance of power between perpetrator and victim, containing both aggressive and libidinal elements, wherein a child's sexual integrity is threatened by the amputation of genital body parts. A child has little cognitive reasoning and is unlikely to be able to differentiate between a sexual attack and other traumatic invasive procedures of the genitalia. (22). A child is unable to withhold consent, can't control what happens to his/her body, and is unlikely to have enough information to understand the consequences. Even in situations where a girl-child refuses to undergo FGC they are often overpowered and cut. Many children have described their circumcision experience in the language of violence, torture, mutilation and sexual assault. Factors that

may predispose a person to the development of PTSD include feelings of powerlessness and loss of control, lack of consent/lack of information, perceived lack of sympathy in the circumciser and the experience of pain (18).

1.3 Research Problem

Female genital cutting, which is still highly prevalent among the Maasai as well as other ethnic groups in Kenya is a traumatic event and a violation of human rights (3) that clearly satisfies the DSM-IV description of a traumatic event. Girls are particularly vulnerable to pain and trauma (23). Long-lasting psychological symptoms of PTSD have been reported in adult females subjected to the procedure, many years earlier (17). However, there has been hardly any research to qualify and quantify the prevalence of PTSD among girls who have undergone FGC. Consequently, our understanding on the relationship between FGC and PTSD is limited. Without this knowledge it will continue to be very difficult to design effective strategies for dealing with PTSD among girls. Hence, the purpose of the study was to explore the relationship between FGC and PTSD among Maasai girls.

1.4 Objectives

1.4.1 General Objective

The present study aimed at examining the evidence of psychological symptoms of PTSD among Maasai girls, who have undergone female genital cutting.

1.4.2 Specific Objectives

1. To establish the prevalence of PTSD among Maasai girls who have undergone FGC.
2. To establish the demographic profile of Maasai girls who have undergone FGC.
3. To document the subjective experience of FGC among Maasai girls.
4. To recommend approaches to management of the psychological needs of Maasai girls and other circumcised girls in Kenya.
5. To use information acquired in the study in preventive campaigns against FGC

1.5 Study Justification

This study has both academic and social relevance. Academically, this study has attempts to establish the psychological effects of an extremely traumatic cultural experience i.e. FGC. Although a lot of studies on the physical consequences of FGC have been done, most of the reports on psychological consequences are based on case studies. The prevalence of psychological consequences remains unknown to a large extent. This is also true of PTSD in relation to FGC

This study has a practical and social relevance in that it will provide data that can be used to target strategies to manage PTSD among Maasai girls. It is only through a greater understanding of FGC and the myriad mental health problems that it causes, that coherent and effective strategies for dealing with them can be developed. It will also provide information to anti-FGC activists, information that can be used in the community for the purposes of preventive campaign.

CHAPTER 2: REVIEW OF LITERATURE

2.1 Introduction

A number of studies have investigated the prevalence of PTSD in the general population and specific vulnerable groups such as refugees, soldiers, women and children. Studies on children and adolescents show that those who have been exposed to various traumatizing events may use various forms of defensive functions to avoid thinking about the traumatic event or to gain mastery or control over the event. They may experience intolerable intrusive thoughts or images and memory impairment may occur thus affecting intellectual functioning or the ability to perform in the present or think of the future. Cognitive effects of trauma in these children also include: (a) time distortions regarding the event, (b) inability to recall details of the event in sequence, (c) conscious suppression of the thoughts or images and avoidance (d) a foreshortened sense of the future, (e) no goals or altered goals, (f) hyper vigilance, (g) alertness to reminders and (h) guardedness against attack (24, 25, 26, 27, 28).

Studies among traumatized children and adolescents reveal that affective effects of trauma make children and adolescents react in two ways after trauma: either in a hyperresponsive mode with unmodulated anxiety and hyperreactivity or a hyporesponsive mode and withdrawal socially and emotionally. They were also observed to display emotional lability, were more likely to express, irritability, anger and rage and their capacity to modulate feelings was reduce (2, 26, 29). Likewise, it seems that they have constricted emotions or have demonstrated an inability to express or experience feelings or they may appear emotionless (30, 33). The affective effects in these studies were also noted to include anxiety, panic and irritability; fears, excessive worry, generalized phobias and fears of retraumatization, tension, distress at reminders of objects, situations or people, traumatic dreams, avoidance of pleasurable activities and re-experiencing the event emotionally (30, 31, 32). Other studies in children and adolescents have revealed numerous behavioural changes after trauma that meet the PTSD criteria and these include: posttraumatic play, aggressive behaviour, reenactment in play, retelling the event without affect, poor concentration, inattentiveness, hyperactivity, altered behaviour to avoid activities, people, situations or objects that are reminders of the events (24, 26, 27).

Various studies in children and adolescents who have experienced traumatic events have also found an association between trauma and physiological and somatic effects that meet the criteria for PTSD, including: hyper arousal, low tolerance for stress, startle response to reminder stimuli, alternating with numbing, sleep disorders and fatigue (26, 29, 33, 44).

2.2 Post Traumatic Stress Disorder

The essential feature of PTSD is the development of characteristic symptoms following exposure to a traumatic event that arouses fear, helplessness, or horror or in children disorganized or agitated behaviour (19). A host of stressors both natural and man-made can be very traumatizing. Naturally occurring stressors include natural disasters and man made events, which include acts of violence. Some of these are single events with acute effects while others involve chronic exposure. Exposure can occur through the direct experience with person, victimization or through witnessing of a traumatic event. Circumcision of both girls and boys is considered to be a traumatic event (18). However, female genital cutting has been found to be even more traumatic through the extreme pain, loss of body part, the frequent acute complications involved as well as the chronic sometime life long complications. It should therefore, never be compared or equated to male circumcision.

The symptoms of PTSD are classified into three clusters: persistent re-experiencing of the traumatic event, persistence avoidance of associated stimuli and heightened physiologic arousal (19). The first cluster of symptoms involves alternating phases or states of intrusive phenomena related to the event such as flashback, nightmares, and recurrent recollections of the event. According to the DSM IV Tr, at least one re-experiencing symptom is required for diagnosis.

The second cluster of avoidance phenomena includes both purposeful actions and unconscious mechanisms related to the event like emotional numbness, avoidance of reminders of the events, inability to recall important aspects of the trauma and social or emotional withdrawal. In the DSM-IV at least three symptoms of avoidance are needed for diagnosis.

The arousal cluster requires increased general arousal, including sleep disorders, irritability or outbursts of anger, difficulty concentrating, hyper vigilance and startle response. At least two of these symptoms, not present before the traumatic event are required for diagnosis in accordance with the DSM- IV.

To qualify for diagnosis, symptoms must continue for more than one month or persist for months or years. Symptoms usually begin three months after exposure to the traumatic event but may be delayed, and specific symptoms and their intensity or severity may take more time. The symptoms must cause significant distress or impaired functioning which may be evident at work, home, school or in other settings and interpersonal relationships. Expression of some PTSD symptoms may be noticed following the trauma exposure, partial symptomatology may be disabling, and the symptom complex may develop over time. Treatment may be necessary even if the criteria are not met.

PTSD can either be acute, chronic or have a delayed onset. Acute PTSD is said to occur when symptoms manifest themselves for less than three months. When symptoms are experienced for more than three months, chronic PTSD is said to occur. Delayed Onset PTSD occurs when the onset of symptoms is at least six months after the incidence.

2.3 Risk Factors for Post Traumatic Stress Disorder

Literature suggests that three types of factors predispose individuals to PTSD. These are host related factors, the degree of trauma and environmental factors. Existing literature suggests that host related factors such as age (21, 34) and gender (35) predispose individuals to PTSD. Studies show that women have an increased vulnerability to PTSD. Thus one expects to find higher prevalence rates of PTSD in females as compared to males, who have been exposed to traumatic experiences.

There is also evidence of higher rates of trauma related psychological problems in children (36). Of the different age groups, the most vulnerable group appears to be adolescents (34). There is evidence of a high correlation between mothers' distress and children's distress in war situations (37). This indicates that the prevalence of PTSD is most likely to be higher

in children exposed to traumatic experiences, especially in situations where mothers have also been traumatized.

Psychiatric history and current physical illness are also considered to be risk factors for PTSD (38). Thus individuals with underlying health problems are more vulnerable to PTSD.

There is some emerging evidence that circumcision of male infants leads to PTSD (19). In addition FGC male circumcision is also considered a risk factor for PTSD (16). Our understanding of male circumcision and FGC as risk factors for PTSD mainly emanates from studies using boys or adult females.

There is some consistent evidence on the relationship between the degree of trauma and the amount of psychological distress (21). In other words, the greater the exposure to trauma (both physical and psychological) the more pronounced the symptoms are. It is recommended that future studies on PTSD should control for the above reviewed risk factors.

Available evidence seems to suggest that it takes more than the agent (for example threat to life) to provoke psychopathology. Indeed the role of the environment is of importance. Religious beliefs, ideological commitment and social support are thought to have protected communities that were exposed to terrorist attacks (39). Despite the infliction of long-lasting somatic harm on most individuals, the fact that FGC is culturally embedded may represent a protective factor against the emergence of PTSD (17). However, it must be pointed out that more and more FGC takes place outside of ritualized context and there is increased awareness among girls that it is a harmful practice. Therefore studies that examine the possible interaction between the traumatizing event, the person (victim) and the environment in influencing the prevalence of PTSD are required. Failure to understand this relationship is detrimental to sound mental health policy and practical guidance.

2.4 Previous Studies on Post Traumatic Stress Disorder

Although there have been no studies on the prevalence of PTSD among genitally mutilated women/girls in Kenya, some studies have been done in Africa. A comparative study involving 23 circumcised and 24 uncircumcised Senegalese women in Dakar was undertaken to investigate the mental health status of women after genital mutilation (17). A neuropsychiatry interview using the Mini International Neuropsychiatry Interview (MINI) was used to assess psychiatric illnesses. Furthermore, a short form of the Traumatic Life Event Questionnaire was used to assess other traumatic life experiences. Short-term and long-term memory were measured with the Rey Figure Test. Demographic variables of both groups were also sought. The two groups of circumcised and uncircumcised women did not differ significantly in terms of age, education, marital status, or traumatic life experiences. The mean age of the respondents of this study was 22.9 years and they had completed an average of 11.5 years in school. The circumcised women showed a significantly higher prevalence of PTSD (30.4%) and other psychiatric syndromes (47.9%) than the uncircumcised women. PTSD was accompanied by memory problems. This study concluded that, a mental health problem exists within the circumcised group that furnishes evidence of the severe psychological consequences of female genital mutilation. The authors of this report provide an additional strong argument for the provision of culturally grounded knowledge that can contribute to the eradication of female genital mutilation. They also call for more research to support women suffering from emotional difficulties. This study has a methodological limitation in that it uses a small sample size and is cross sectional in nature.

Although this may not be very useful when considering female genital mutilation, it is important here to quote similar studies done on male populations. A study in the Philippines compared the prevalence rates of PTSD among boys who had either undergone ritual or medical circumcision (18). This study used a large sample of 1577 boys. Of the sampled boys 1072 had been circumcised under medical procedures while the remaining 505 boys underwent ritual circumcision. This study used a self report questionnaire that solicited information on the biographical data of the respondents their circumcision experiences and their perceptions of the circumcision procedure. PTSD was assessed using the Watson *et al.* PTSD-I interview rating scale. The sampled boys were aged between 11

and 16 years. This study established that 70% of boys subjected to ritual circumcision and 51% of those subjected to medical circumcision fulfilled the DSM-IV criteria for a diagnosis of PTSD. This study revealed that circumcision, even in male children can lead to the development of PTSD. The study called for educating the Filipino community about the psychological harm caused by both ritual and medical circumcision of boys. This study could not discriminate between acute and chronic PTSD due its cross sectional nature.

While appreciating that the above reviewed studies enhance our understanding of the magnitude of the PTSD, it is important to observe that these rates come from different studies that use different methods and samples in different time periods and geographical areas and thus can not be a reliable guide of the magnitude of the problem among different local populations like the Maasai Girls.

2:5 Instruments

To capture the prevalence of PTSD, existing studies generally tend to use either quantitative approaches such as surveys (19, 20) or qualitative approaches such as case studies (15).

Three of the most common instruments that are used for the diagnosis of PTSD include the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) of the American Psychiatric Association (19), the Impact of Events Scale (IES) (40) and the Watson *et al.* PTSD-I interview rating scale (41).

2:6 The Impact of Event Scale-R (IES-R)

This is a self administered report scale designed to measure the intensity of trauma-related symptoms on two separate dimensions: intrusive thoughts and behavioural avoidance. It yields a total score, the Intrusion subscale score and an Avoidance subscale score, with higher scores indicating increased intensity of symptoms. This instrument has been shown to have adequate internal reliability, test-retest reliability and sensitivity to both patient and non patient samples (42). This is the instrument that has been used in this study.

CHAPTER 3: METHODOLOGY

3.1 Study Hypotheses

Alternate Hypothesis- Maasai girls who have undergone female genital cutting exhibit psychological symptoms of PTSD.

Null Hypothesis- Maasai girls who have undergone female genital cutting do not exhibit psychological symptoms of PTSD

3.2 Research Design

The study was a descriptive quantitative and qualitative study that adopted a population survey approach to establish the prevalence of PTSD among Maasai girls who have undergone FGC. The qualitative component was supposed to capture the actual experience of the girls in focused group discussions.

3.3 Study Site

The study was conducted in Transmara formerly part of Narok and Kajiado Districts. These two Districts are largely inhabited by the Maasai. Transmara district has four schools which gives shelter to the girls who have undergone FGM saved from early marriage. Kajiado district has three. The interviews were carried out in the following schools:

(i) Enoosaen Secondary School

This school is located at the furthest end of Transmara district bordering Kisii district in the north and Migori district in the west. It was build as a boarding school to cater for Maasai girls mainly the Iluasin ngishu sub tribe of the Maasai though it admits girls from other communities who go there for their secondary school education. It was built in 1994 and has so far offered shelter to those girls who have undergone FGM and have ran away from possible early marriage. It is a girls' only school and is ran by the government school. However, some of the girls have already undergone FGC by the time they come to the school having been rescued to save them from early forced marriage. The first 24 interviews for this study were carried out in the first four days beginning early June 2008.

(ii) St. Joseph's Girls Boarding School.

This is one of the oldest girls school in Transmara having been established in the early 70s by the Mill Hill Missionaries under Ngong Diocese. It was managed by the nuns who have since been replaced by government employees. It was established to act as a rescue centre for Maasai girls and to offer education. It admits children from as far as Nairobi. Though it is one of the oldest schools its status has not changed because it still offers primary education. This was the second interview centre with 12 girls and it took two days in the second week of June 2008. The church influence is still very strong in the management of the school and the missionaries cater for the girls who have nowhere to go during the holidays.

(iii) Kilgoris Girls Secondary School

It was established five years ago. It was originally part of Kilgoris Secondary School which was then a mixed school. The parents decided through the help of the government to separate the girls from the boys hence there was need to put up another school which became the current girls secondary school. It caters for children from all communities though the majority are Maasais. It is located within the urban centre. It was the third school for the interview to take place and 20 girls were incorporated into the study. Currently it is congested due to accommodating internally displaced girls from the post election violence. Most of the rescued girls have guardians who pick them up during the holidays.

(iv) Poroko Secondary School

It is a mixed day school. It was established some ten years ago to cater for the Moitanik sub tribe of the Maasai whose children used to trek all the way to Kilgoris Secondary school which is over ten kilometers for education. It has quite a number of girls who have undergone FGM but were unwilling to disclose because of stigma they feel is associated with it and the cultural aspect of not wanting to disclose to somebody they do not know well what actually happens during and after circumcision because a lot of things happen

behind closed doors which only the initiates and those who have undergone FGM are allowed to know. The Maasai do not reveal because it is taken as a taboo and that one can run mad if you disclose anything about circumcision to a stranger. Nine respondents in this school were interviewed before they also left for half term.

(v) AIC Girls

This is one of the oldest girls school in Kajiado District. It was under the leadership of Mrs. Priscillah Nangurai who rescued many of the Maasai girls who had undergone FGM and were being forced into early marriage. She retired some four years ago but she still rescues many of these girls and refers them to the school for admission. It was my third school to do the interview during the last week of June 2008 and 12 girls were incorporated into the study. Though the number of respondents was small the study took four days because the girls still looked fearful and proper rapport was necessary to establish. When schools close these girls go to their guardian Mrs. Nangurai who is planning to build a rescue centre if funds are available.

3.4 Study Population and Sample

The population for the study included all Maasai girls who were residents of the schools that have offered them shelter and educations and had undergone FGC in Narok and Kajiado districts. These were girls who had been removed from schools to undergo FGC in preparation for marriage.

The inclusion criteria for the study was any Maasai girl aged between 10 and 18 years who was resident in the stated districts, had voluntarily agreed to participate in the study, had given assent and consent had been obtained from the guardian.

Exclusion criteria included all the girls who were not willing to participate, those whose consent had not been granted and those who had not undergone FGC.

3.5 Data Collection

Data for the research was collected using a socio-demographic questionnaire, Impact of Event Scale and Taped Focused Group Discussions. Each respondent was briefed on the nature of the study and given the necessary instructions to enable them to fill the

questionnaires or participate in the discussions. The self administered questionnaires were given to all the respondents who had agreed to participate in the study and they were in a position to respond directly. The various schools where the interview took place were visited on different days. Before administering the questioners, the researcher had to establish rapport a few days earlier. The questionnaires consisted of:

- Socio demographic questionnaire.
- Impact of Event Scale-R

The researcher read questions exactly the way they appeared to those respondents who were not in a position to fill out the questionnaires on their own and their responses was recorded as answered by the child. To limit any intimidation, the researcher had to reassure the respondents again that she was only reading the questions out to assist the children to participate fully and that the responses were to be respected and recorded as stated. Some of the data from the socio-demographic questionnaire was directly retrieved by the researcher from the organizations' database (the admission forms).

3.6 Study Instruments

3.6.1 Socio Demographic Profiles

A socio demographic questionnaire prepared specifically for the study by the researcher as shown in Appendix 1B Section A.

The main language of interview was English. However, translation into Kiswahili was done to accommodate any girls who did not speak English.

This questionnaire was compiled to get personal and family information from the respondents. The information collected included present age, age at circumcision, gender, time of rescue, information also included how the child was rescued and who assisted in the rescue, whether the intervention was legal, and educational background. Family information included:

Parents' level of education, any history of mental problems in the family, whether had been treated for mental problems.

Who made the decision that child was to be cut and or married

Number of siblings and age at which other siblings had undergone FGC if they had, motivation for undergoing it for example, self motivation, peer pressure, voluntary or forced. If voluntary, the respondents were asked to state what motivated them to undergo the procedure. A question was asked on history of some other traumatic event that acted as a pre-stressor to trauma which could have influenced the diagnosis. In order to rule out other traumatic events, the girls were asked to indicate whether they had experienced any of the following incidents during their lifetime: serious road traffic accident, severe industrial accident, violent crime, natural disaster, sexual abuse, rape, attack, or some other unusual traumatic experience, or none of the above.

3.6.2 Impact of Event Scale Revised

This was a self report and it was to measure the three domains of intrusion, avoidance and numbing after experiencing the traumatic event.

3.6.3 Taped, Transcribed Focused Group Discussion-Using interview guide

Focused Group Discussions were to enable the researcher understand the reality and real life experience of girls who have undergone FGC. It gave information that may be relevant in future attempts to prevent the further traumatization of girls in that manner. An Interview guide was formulated for the group discussion (Appendix-2C). All discussions and interviews were tape recorded, transcribed and analyzed with the help of the soft ware MAXQDA (VERBI software, 2002, Berlin, Germany)

3.6.4 Data Management and Presentation

The collected data was stored on computer media (flash disks and CDs) and analyzed using the Package for Social Sciences (SPSS) version 13.0. Results were considered to be statistically significant when $p < 0.05$. Results were presented using descriptive statistics such as percentages, means, standard deviation and graphs, tables and charts.

Thematic qualitative analysis was done on the data collected from the focused group discussion which was taped, transcribed, analyzed and summarized into thematic categories with additional direct citation for further clarification.

3:7 Ethical Consideration

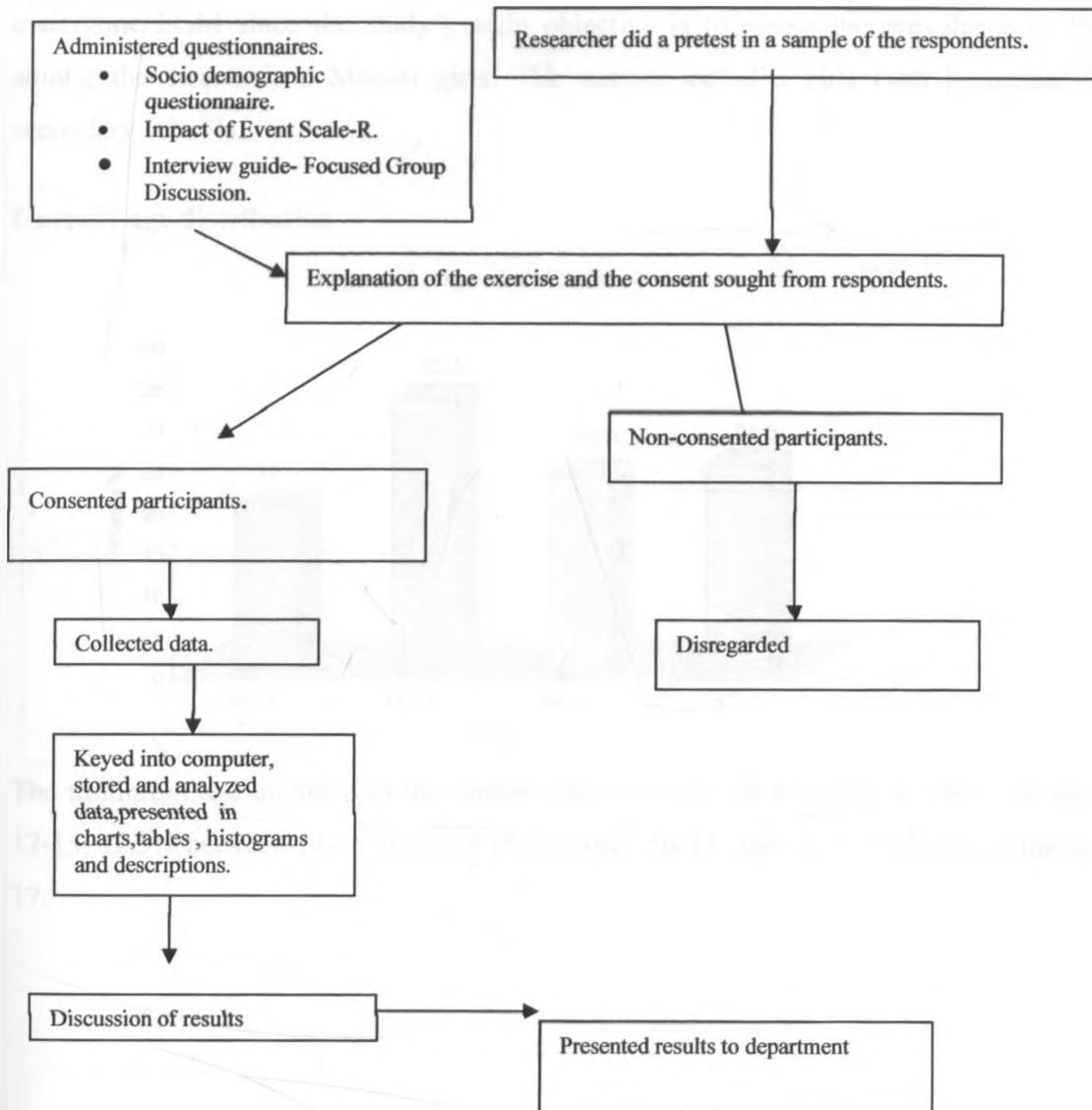
The research proposal was presented to the Department of Psychiatry UON for approval. The proposal was then presented to the ethical committee of Kenyatta National Hospital for clearance. Approval was also sought from the Ministry of Education and Ministry of Science and Technology. The management of the institutions where the research was to be carried out in both Transmara [Narok] and Kajiado who were the guardians of the children were required to give consent to carry out the research among the respondents.

All respondents and guardians at the institutions were briefed on the purpose of the study and consent obtained from each of them. The researcher explained the content of the consent and they were duly informed that no one was to be victimized for not participating or withdrawing from the study.

Each respondent was assured of confidentiality and allowed to ask questions or clarifications before they signed the assent form prior to participating in the study. They were dully informed that no one was to be victimized if they chose not to participate in the study. Considering that the study was to ask invasive questions that would have made the respondents uncomfortable or go through emotional pain as they relieved the traumatic experiences, those who chose to participate were informed of the risks and that they had the right to withdraw at any time. They were also informed of any benefits of participating for example if found in need of further care then the researcher suggested relevant and practical recommendations to the respondent through her institution. This information was included in the assent form that the respondents were required to sign before participating.

The institutions' management was also informed that they had the right to allow or deny their respondents to participate in the study. All respondents found to be in need of further psychiatric services were referred to the program's counselors or appropriate facilities where necessary or advised to seek further management.

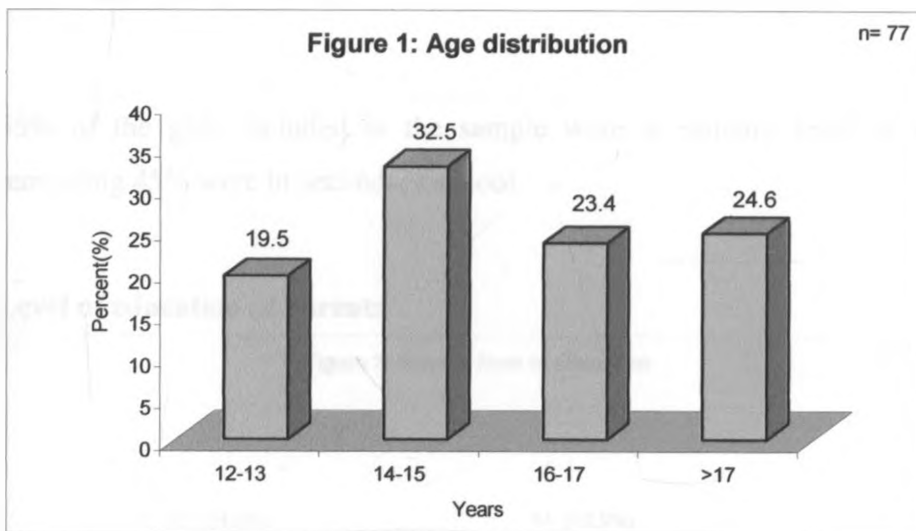
Flow chart of procedures



CHAPTER 4: RESULTS
4.1 Socio Demographics

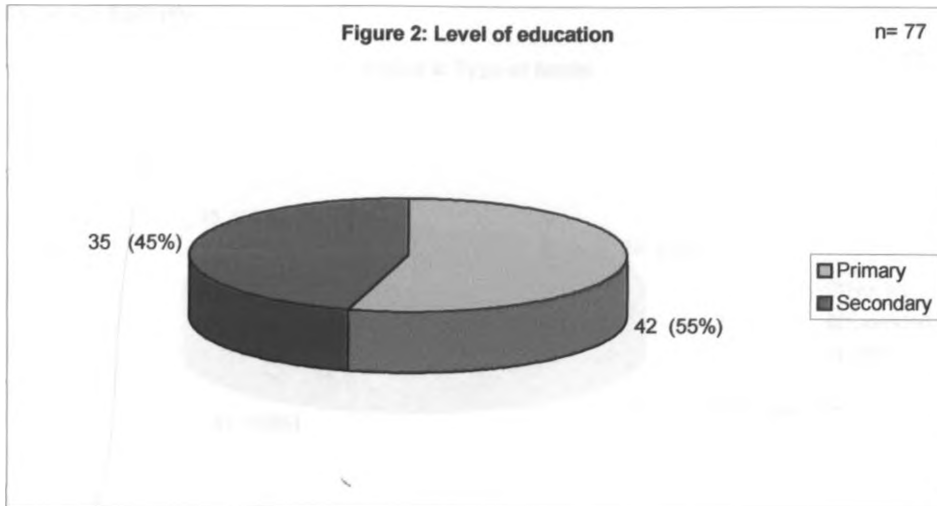
The sample was a total of 77 Maasai girls, majority of who were from Transmara (87%) and some (13%) from Kajiado district. The targeted sample was mainly the girls who had undergone FGM since the study's main objective is to assess the prevalence of PTSD among the circumcised Maasai girls. The sample included girls both in primary and secondary schools.

Current age distribution



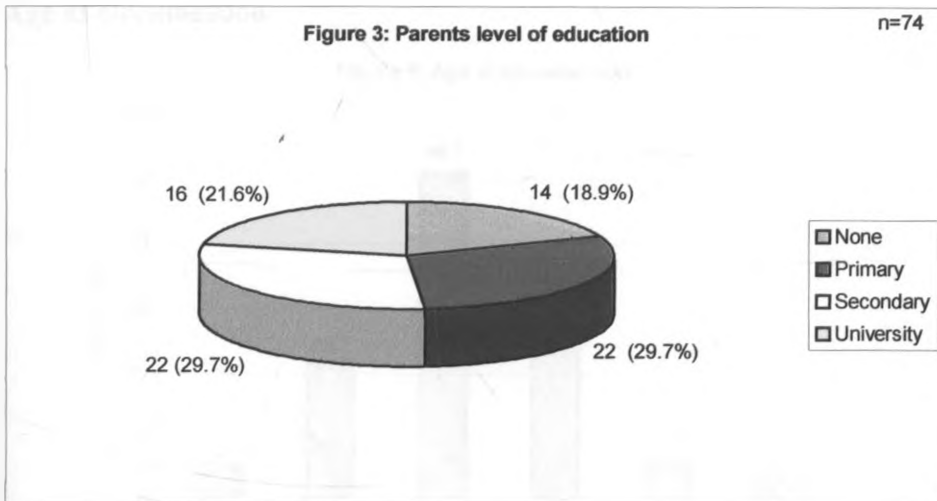
The minimum age included in the sample was 12 years. 19.5% were between the ages of 12-13, 32.5% between 14-15 years 23.4% between 16-17 years and 24.6% above the age of 17.

Current level of education



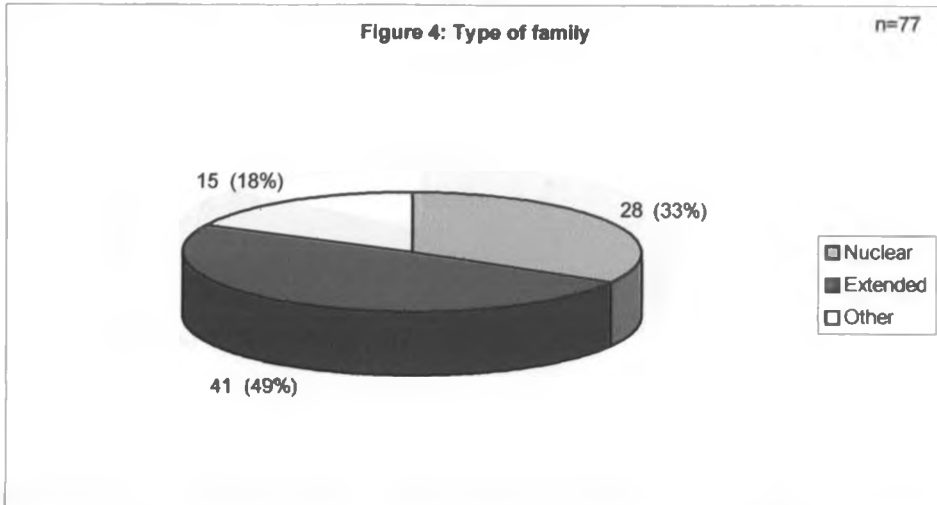
55% of the girls included in the sample were at primary level of education and the remaining 45% were in secondary school.

Level of education of parents



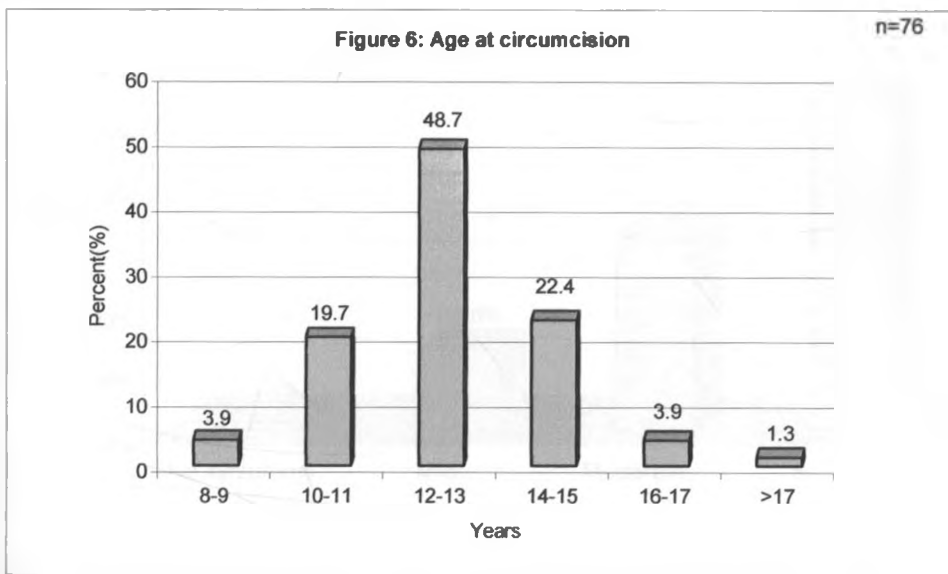
18.9% of the girls had parents who had no level of education, 29.7% had primary level of education 29.7% to secondary level, while 21.6% had university level of education.

Type of family



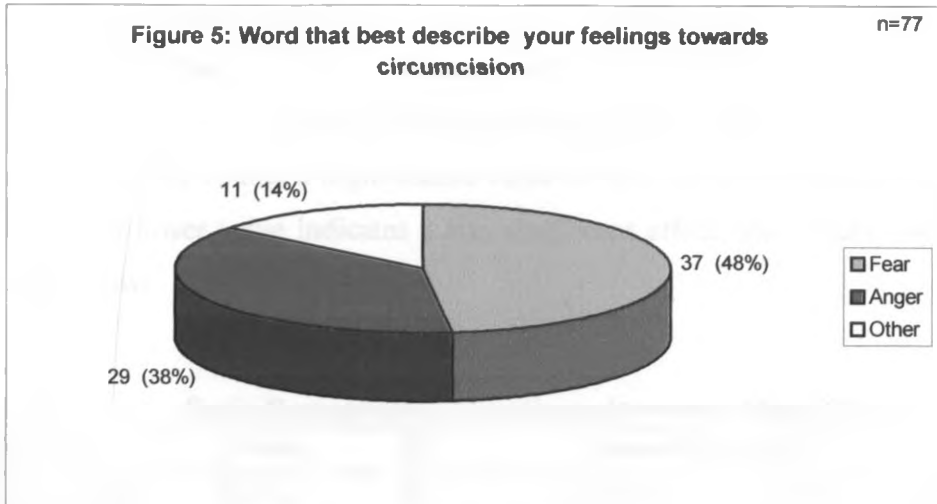
Most of the girls (49%) came from extended families, 33% from nuclear type of families, while 18% came from other types of families.

Age at circumcision



Most of the girls were circumcised at the age of 12-13. On average the girls were circumcised at the age of 12.6 years with very few being circumcised above the age of 15.

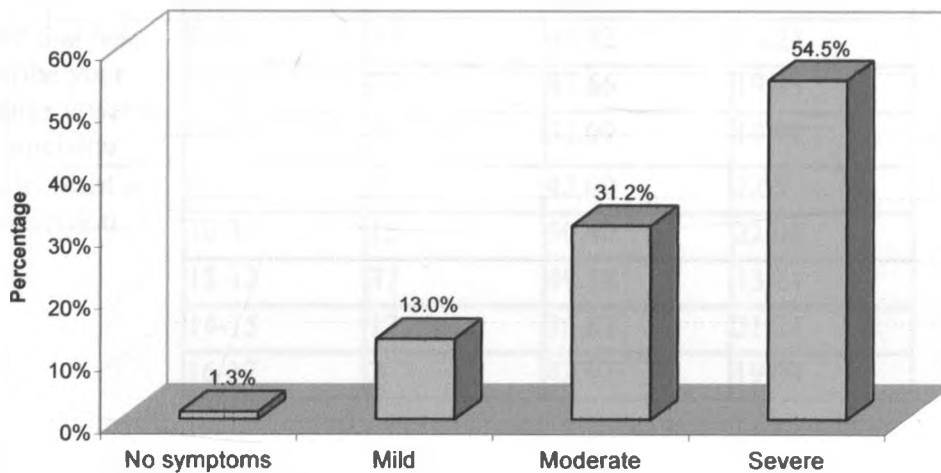
Descriptive Word



On questioning how they feel about the process, 48% of the girls feared the experience, 38% were angry while 14% did not state how they feel towards circumcision.

4.2 POST TRAUMATIC STRESS DISORDER ON IES-R

Figure 7: LEVELS OF PTSD

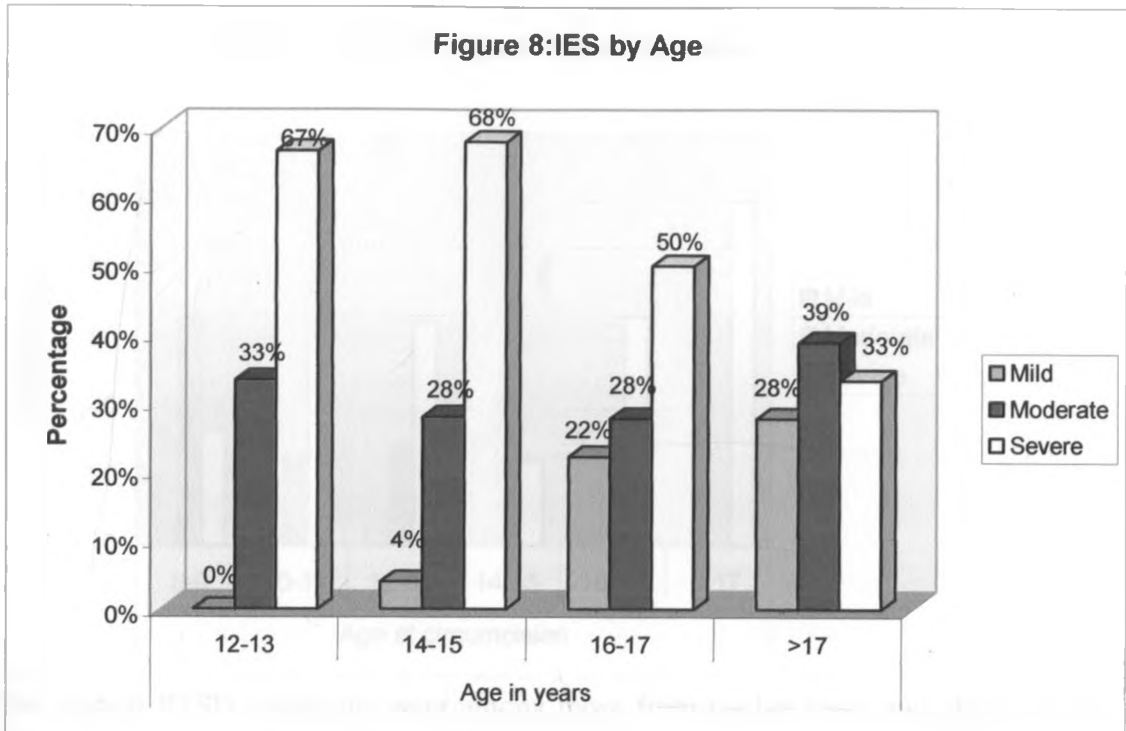


When analyzed for the severity of PTSD using Impact of Event Scale-R 1 respondent had no symptoms (1.3%), while 10 (13.0%) had mild, moderate (31.2%) were 24 and 42 (54.5% had severe PTSD).

A cross-tabulation was done to compare the prevalence of PTSD by different socio-demographic factors. The Chi-Square test was used to determine whether there is a significant variation in the PTSD level by socio-demographic factors at a 95% confidence level. From the results a Significance value of less than 0.05 indicates a significant effect whereas a lower value indicates a non significant effect. The results are as shown on the table below:

Table 1 Socio Demographic Questionnaire verses Mean IES-R

Factor	Group	N	Mean IES-R	SD
Age in years	12-13	15	50.20	7.57
	14-15	25	51.24	13.61
	16-17	18	48.22	21.65
	>17	19	35.79	20.40
Socio-economic class	Low	16	59.00	16.77
	Middle	46	42.26	17.11
	High	15	46.27	14.58
Word that best describe your feelings towards circumcision	Fear	37	49.92	13.23
	Anger	29	47.66	19.83
	Other	11	32.09	18.91
Age in years at circumcision.	8-9	3	42.00	2.65
	10-11	15	50.40	22.05
	12-13	37	49.38	13.24
	14-15	17	36.82	21.24
	16-17	3	42.67	19.09



From the figure above it can be seen that symptoms of PTSD tend to reduce as the girls grow. The 12-13 and 14-15 year olds have the highest level of severe PTSD of 67% and 68% respectively. The severe cases are much lower in the older girls with 16-17 and over 17 year olds having 50% and 33% respectively. It can also be noted that the percentage of mild cases increases as the age increases.

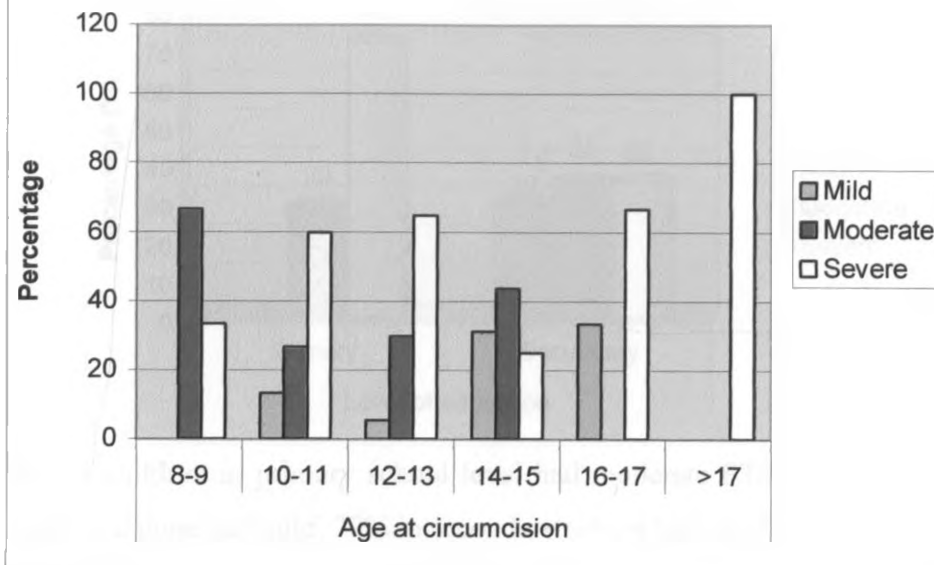
The $df = 6$

chi square = 10.862

p value = .093

Not statistically significant.

Figure 9: IES by Age at Circumcision



The highest PTSD symptoms were among those from twelve years and above while the least was found those who were between ages 8-11.

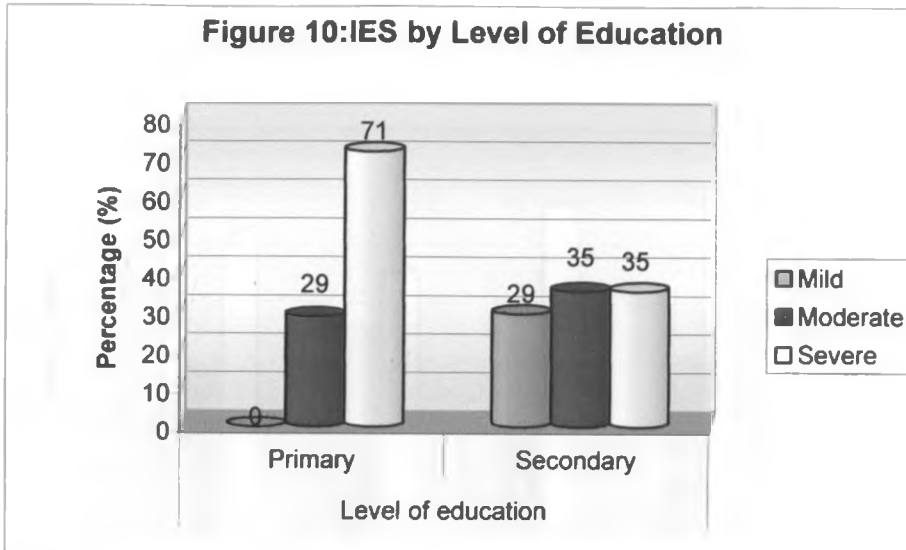
The $df = 10$

chi square = 14.382

p value = .156

Not statistically significant

Figure 10: IES by Level of Education



29% of children in primary school level had moderate PTSD symptoms while 71% had severe and none had mild. 29% in secondary school had mild, while 35% had moderate and another 35% had severe symptoms of PTSD.

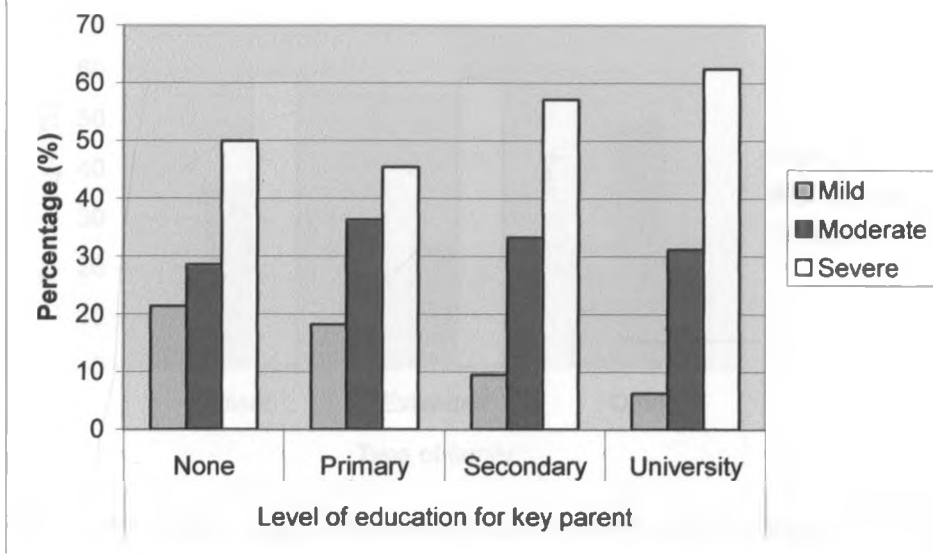
The $df = 2$

chi square = 17.061

p value = .000

This is statistically significant.

Figure 11: IES by level of Education of Key Parent



Those respondents whose parents had university level of education exhibited the highest PTSD symptoms, followed by those with secondary level of education then those whose parents had no education and the lowest were from those whose parents had primary level of education.

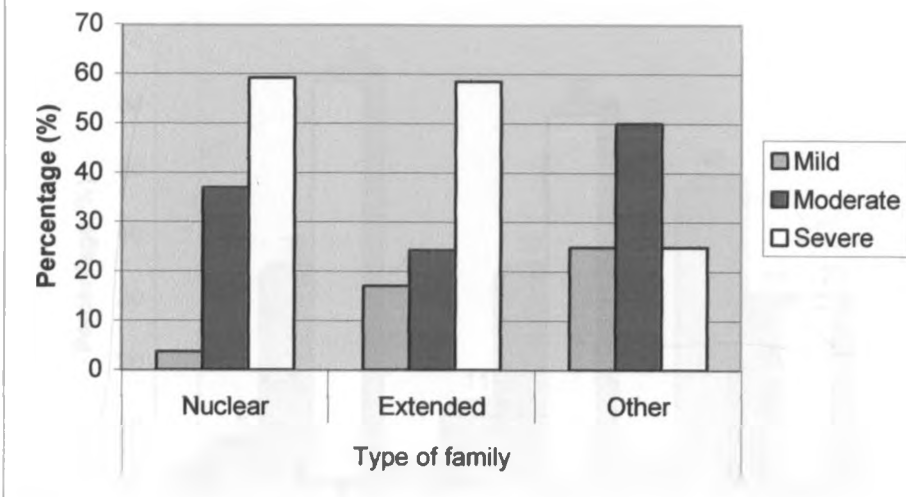
The $df = 6$

chi square = 2.616

p value = .855

Not statistically significant.

Figure 12: IES by Type of family



Most (69%) of the respondents from nuclear family had the highest PTSD symptoms while followed by those from extended families (68%), then the least 23% from others.

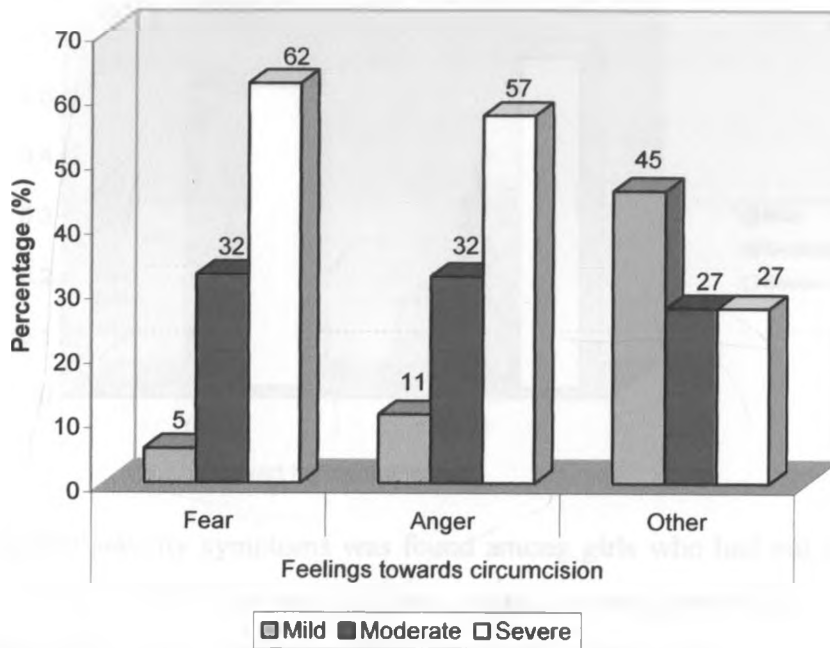
The $df = 4$

chi square = 6.433

p value = .169

Not statistically significant

Figure 13: IES by Feeling towards Circumcision



Those respondents who said fear is what they experienced most had the highest symptoms of PTSD (62%) followed by anger (57%) then others had mild symptoms.

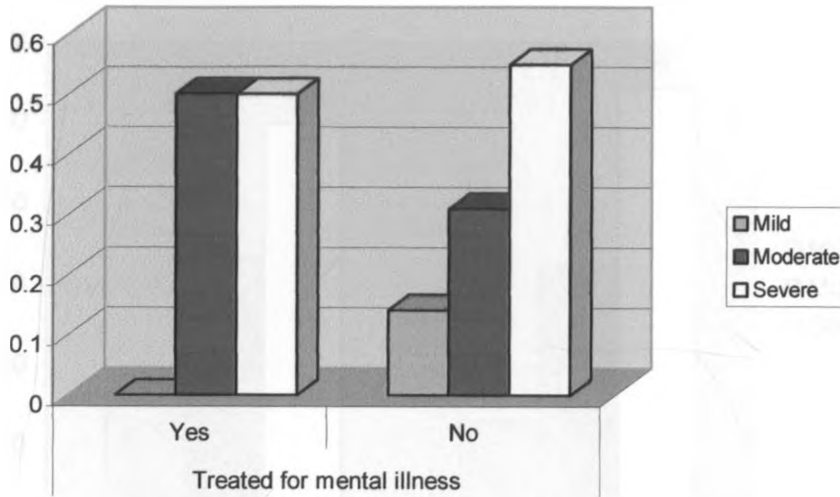
The $df = 4$

chi square = 12.509

p value = .014

Statistically significant.

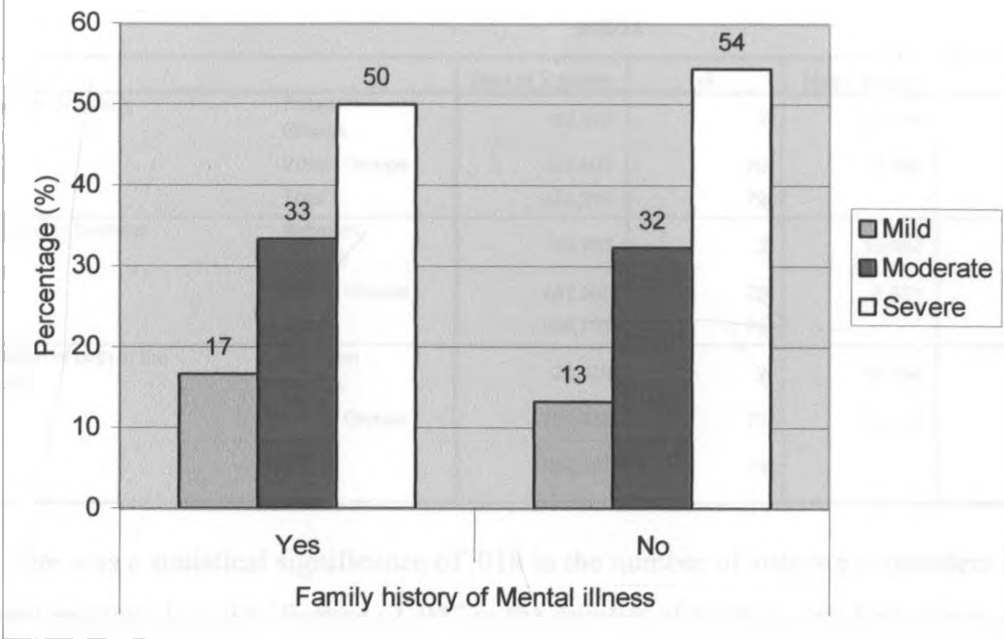
IES Score by Treatment for mental illness



The highest severity symptoms was found among girls who had not been treated for any mental illness while those who had been treated for any mental illness had same levels of moderate and severe symptoms. Mild symptoms were highest in the former group while moderate were highest in the later group.

The $df = 2$
chi square = 1.008
p value = .604
Not statistically significant.

Figure 15: Family mental illness History



The highest PTSD symptoms were found among respondents whose family had no history of mental illness.

The $df = 2$

chi square = .070

p value = .966

Not statistically significant.

ANOVA to test whether there is a significant variation due to the number of sisters, number of brothers, and position at birth by the different IES levels.

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Number of sisters	Between Groups	52.417	2	26.209	4.249	.018
	Within Groups	431.802	70	6.169		
	Total	484.219	72			
Number of brothers	Between Groups	39.785	2	19.892	2.982	.057
	Within Groups	487.005	73	6.671		
	Total	526.789	75			
Position of birth in the family	Between Groups	20.129	2	10.064	.948	.392
	Within Groups	764.458	72	10.617		
	Total	784.587	74			

There was a statistical significance of .018 in the number of sisters a respondent had and another statistical significance of .057 in the number of brothers one had. There was no statistical significance (.392) in one's birth position.

4.3 Focused Group Discussions

Group A- consisted of 24 girls from forms 1 to 4

Girls were invited to the discussion on the basis of having undergone FGM and a willingness to talk about it.

Group A – consisted of 24 girls from forms 1 to 4

Categories group A	Summary paraphrased	Direct citation
1. Ceremonial Preparations-	Girls unanimously agreed that they were involved in ceremonies which were prepared for them. This involved the slaughtering of a bull, villagers were invited and there was singing and dancing the whole day and night. The girls were dressed smartly and celebrated and took photos with their friends. Fathers spent a lot of money on the ceremony	<i>“We have never been as smart as that before”</i> <i>“Mzee [father] can use even up to half a million. After that he starts getting poor. He put in so much to show you off on your day, he shows up until he gets poor”</i>
2. Who initiated the rituals	While some of the girls asked to undergo the ritual, some under the influence of friends others were told or pressurised by the parents	
3. The cut as experienced	The cutting was conducted at home. Nearly all the girls even those who had been injected	<i>“We lost a lot of blood even on that day”</i>

	<p>experienced the procedure as painful, there was a lot of bleeding. The pain got even worse later and was also associated with urinating. In some cases the bleeding continued for days. one girl had to be given medication another was given two glasses of cow blood</p> <p>Some were injected others were not. Some were injected in the evening, others on the spot and some after. There seems to have been 2 types of injections in use- to ease the pain and to prevent tetanus</p>	<p><i>"You feel a lot of pain when we urinate so we fear urinating"</i></p>
<p>4. Immediate reaction</p>	<p>Although the girls knew what was going to happen it was when the cutting, the bleeding and the pain start that full awareness sets in. There was regret and shame because they suddenly felt very exposed</p> <p>After the cutting is over the girls feel more ashamed because people crowd around them at this point some girls start crying, particularly those who had been forced.</p> <p>Some feel very angry, they</p>	<p><i>"Yes, the moment they cut you now your mind gets open. – before that preparation, actually you don't know what is going to happen, after that you regret, you had not really thought about it."</i></p> <p><i>"Yes, then also I was feeling ashamed that day.—they cut you now they see the thing of the girl".</i></p>

	<p>experience strong feelings of hate even against their parents. Some however, are happy- they know it is over now they have left the life of childhood and they try to forget what has happened.</p>	<p><i>"At the time your mind goes blank you don't care about anything even your parents".</i></p> <p><i>"- if you were forced, you keep on crying, when she remembers she feels very disturbed. Because you did not ask for it you were forced. When you sleep the pictures come back- you dream about it. You feel as if you have been totally destroyed. You dream and get startled in sleep. You see as if it is happening again. You can even wake up, sit in bed and start crying."</i></p>
<p>5. Current feelings and Memories</p>	<p>Some of the girls said they had forgotten all about it, others still remember particularly, in December when the circumcision rituals take place and especially if some girl they know is involved because it makes them feel as if they are going through it again. While</p>	<p><i>"These days I don't even want to know who is going. I don't want to know- when I was circumcised I was not saved, when I got saved I found out it was bad. Now I don't want to hear even if it is one of my sisters going"</i></p>

	<p>some girls attend such ceremonies other said they were afraid to do so</p> <p>Some girls talked of deep regret.</p>	<p><i>"I still blame my parents because they forced me into it when I was young, so that I could not decide for myself. When I remember I feel like crying and I hate them"</i></p>
6. Opinion about FGM	<p>Responses to what girls thought about FGM ranged from- <i>"It is a must"</i>, to it should be stopped. A big number of girls seemed to be of the opinion that FGM Should not be forced, but those who wanted to continue should be free to do so.</p> <p>One of the cited disadvantages was that it interferes with school</p>	<p><i>"Like in our Maasai culture when girls are circumcised they feel like they are grown up. They can get married. It stops a lot of children from going on in school, so I will discourage them."</i></p>
7. Advantages	<p>Apart from what has been cited below, the only other advantage cited was related to what was seen as uncontrolled and promiscuous sexual behaviour of uncircumcised girls.</p>	<p><i>"Those who have not gone have very bad manners. They are the ones who get pregnant quickly. They have moral of men."</i></p>
8. Lessons learned from	<p>FGM was seen as imparting important lessons in growing up</p>	<p><i>"You gain respect from parents, when you talk to</i></p>

FGM	and leaving the world of childhood so that one gained the respect accorded to adults.	<i>them they listen, even the community respects you. If you have not undergone FGM whenever they you say anything you are not respected. The moment you are circumcised even if you say something useless they say you have a point."</i>
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Group B- consisted of 12 girls from forms 1 to 4

Girls were invited to the discussion on the basis of having undergone FGM and a willingness to talk about it.

Categories	Summary paraphrased	Direct citation
1. Ceremonial Preparations-	There was little discussions on this except to admit that there had been a ceremony	
2. Who initiated the rituals	None of the girls admitted to having willingly gone for the ritual. One girl had to go through at the same time as her sister to save on resources	
3. The cut as experienced	Was conducted at home some in large groups- some girls were injected before, others after. Most of the girls described varying degrees of pain some immediately after others a	<i>"I don't even want to think about it. It was very painful. We were nineteen girls and it had rained. All that cold and then in the evening we were not injected or given any</i>

	<p>short while later. One girl talked of such excessive bleeding and pain that another ceremony had to be performed the following day. There was excessive pain on urinating and even sitting and walking</p>	<p><i>medicine. It was very painful. After it is done you are told to get up and you feel as if you have been given a very heavy load to carry, and you also feel as if your body is very heavy. Then we were led into that house after the circumcision, I found a lot of people and mothers, and each mother was running to her child. I could not even breath. Some were very small children and they started to cry, others started fainting. And bleeding”</i></p>
4. Immediate reaction	<p>There was a feeling of shame, of being seen naked by all who had gathered.</p>	<p><i>“Everybody is struggling to see you, it is full of children, adults, youth, your father is there, it was very shameful.”</i></p>
5. Current feelings and Memories	<p>Some had clear memories of the events. They had very negative feelings against the women who did the circumcision. Women they didn't greet if they met. One even found that these women</p>	<p><i>“When I was circumcised, I did not see that woman change the knife, I still remember that and it bothers me even today. I did not like it. We were nineteen girl each one was</i></p>

	<p>looked scary like animals. Some still feel very bad and angry. It changed the way they relate to others- to parents, to those who are not circumcised, and even they way they feel about themselves and their lives.</p>	<p><i>pushing to get be done and get it over with, in fact one of them was not properly circumcised, it had to be repeated and it was even more painful by that woman”</i></p> <p><i>“The love I had for people changed so that when I see someone now I don't have feelings for them.</i></p> <p><i>-we see those who have not gone through it and we feel bad- you really get bored, you feel bad -you think it is you alone who went through it especially when the teachers mention about it. In fact when I meet my colleagues I feel bad and I start remember. If I could not have gone through it I couldn't have that memory. We get distracted”.</i></p>
<p>6. Opinion about FGM</p>	<p>The majority of girls in this group were very adamant that FGM should stop. FGM disrupts education for girls because they are quickly married off</p>	<p><i>I can't support it because you feel a lot of pain, and you hate the parents. Parents waste a lot of money because they want to marry you off, in fact</i></p>

	<p>afterwards.</p> <p>One of the students didn't care what others people would say she would fight against FGM.</p> <p>Another was against because it caused forgetfulness and ill health.</p> <p>Some reported that some girls had died and others had gone mad and therefore it should stop.</p>	<p><i>most of those who were circumcised with me are already married, I am the only one who had luck and could come to school. They [parents] like marriage more than school because they spend more money on circumcision than school. So I can't support so that children can continue to go to school</i></p> <p><i>There should be a law against it because we feel very bad about it. And if we feel bad about it, how can we allow our children or sisters to go through it</i></p>
7. Advantages	None described	
8. Lessons learned from FGM	None mentioned	

CHAPTER 5: DISCUSSION

5.1 Introduction

Despite the children's act and the Sexual Offences Act, underage girls in some ethnic groups in Kenya are still undergoing female genital mutilation and being forced into early marriage. This study looks at such phenomena among Maasai girls in the Transmara and Kajiado districts. It also goes on to document the prevalence of PTSD among girls who had undergone FGM and been rescued from early marriage. The study shows extremely high levels of PTSD, which is not surprising considering the extreme pain and trauma associated with FGM as revealed in the focused group discussion in this study.

5.2 The Experience of FGM.

Though the girls were involved in the preparations and even entertained their visitors, they still developed PTSD because of the traumatic nature of FGM and parental lack of communication about the traumatic nature of the process. On the eve of circumcision girls are normally checked physically by some old ladies to determine virginity. This is usually a bad experience for the girls because of the manner in which their genitals are handled in the process.

The girls are normally circumcised in a group and a traditional circumciser, usually an elderly woman with great experience performs the procedure. The girls have their legs parted widely and they are held back by some women so that they do not run away during the procedure or kick the circumciser. All the girls are circumcised on the same day.

Until recently all the girls were circumcised with the same instrument, usually a knife which in most cases is uneven and blunt due to the length of time it has been used. Many of those who get circumcised in the more rural interior have a paste from cow dung and milk fat applied on the fresh wound to stop the bleeding. The procedure is normally done very fast and the girls are not supposed to scream because this would bring shame to the family. No matter how painful it is the girl is supposed to maintain an expressionless face, as if nothing has happened. It is a very humiliating experience because no privacy is maintained since it is done in the open.

Many of the girls bleed excessively because the cutting is normally very crude thus affecting a lot of blood vessels and sensitive nerves. The blood vessels are left open so that some of the girls faint due to excessive bleeding. The extreme pain and excessive bleeding

in the presence of so many people often leaves these helpless girls with a lot of fear of imminent death and actually some of them prefer death at that moment. This is when some develop antipathy and even hatred towards their parents.

The results show that all the girls in the focused group discussions portrayed almost similar perceptions, feelings and experiences towards FGM. Top on the list is extreme pain, excessive bleeding, shame and antipathy and hatred towards their parents and the circumciser, despite the fact some had voluntarily accepted to be cut and they had actually been prepared for it and had even participated in the preparations. Even those who got the injection before, after and during the operation still reported extreme pain like the rest. Most got the injection the previous evening and this could have weakened the effectiveness of the drugs since the operation took place almost eight hours after and those who got the injection after experienced pain before though they said that it could have been a tetanus injection. All the girls who had received the injection and those who had not all experienced a lot of pain and bleeding to the extent that some fainted and others had to have cow's blood to replace to replace the lost one and other's had traditional rites performed by their fathers to stop the bleeding while others were rushed to hospital as emergency cases because of bleeding. Hate towards their parents especially the mother has also been cited because most of the girls who had been forced to undergo it had been forced by their mothers and also they expected their mothers to have warned them of the pain and humiliation. They expressed anger and hatred towards the circumciser. They reported that they avoided greeting her when they met and one girl said she had a face like an animal.

While the description and ranking of their experiences and feelings was similar in both groups, their opinions on FGM varied with several girls in a rural school almost supporting it, while those in an urban school rejected and some even broke down during this part of the discussion.

Information from various focus group discussions in other parts of Kenya like Embu, Meru, Machakos, Nyamira, Nyeri reveal the same findings- girls experiencing intense pain, excessive bleeding and shock. A survey in 1991 involving 1,222 women in four Kenyan

districts indicated that 48.5% of the women experienced haemorrhage, 23.9% infection, and 19.4% had urine retention after the cutting (44).

Some eight community focus group discussions in Mt. Elgon found out that several important issues some being that the community takes exceptional pride in FGM just like the Maasai and those who do not accept circumcision are outcasts and despised by their peers. They cannot even be married within the community. Despite this, the discussions revealed consequences of FGM, which are no different as those described by other FGM practicing communities (44)

Another study in Sierra Leone in 1995 involving 269 women who were interviewed found that 97% of them experienced intense pain during and after FGM, and more than 13% went into shock and had haemorrhage leading to anaemia. (45) Wound infection, including tetanus. A survey in one clinic in Sierra Leone showed that of 100 girls who had undergone FGM, 1 died and 12 required hospitalization. Of the 12 who were hospitalized, 10 suffered from excessive bleeding and 5 from tetanus. This scene is no different from what Maasai girls undergo during FGM.

There are long term consequences of FGM including painful or blocked menses, recurrent urinary tract infections, abscesses, dermoid cysts, keloid scars, increased risk of maternal and child morbidity and mortality and infertility. Some researchers have described the psychological effects of FGM as ranging from anxiety to severe depression and psychosomatic illnesses. FGM is also likely to increase the risk of HIV infection-often the same un-sterilized instrument is used on several girls at a time, increasing the chance of spreading HIV or another communicable disease (46).

5.3 Prevalence Rates of PTSD

PTSD is a commonly occurring disorder that is characterized by an individual's exposure to one or more events that involve death, threat to life or limb, or serious injury (APA, 2000) (47) and a cluster of psychological responses to the memories of those events, consisting of intrusive, avoidant, and hyper-arousal symptoms. A number of factors contribute to the outcome following trauma, including aspects of the event and exposure, the characteristics of the victim and family and socio-cultural factors. This study was undertaken to estimate the prevalence of PTSD among Maasai girls after undergoing circumcision. The findings in the study show the three PTSD categories (mil, moderate and severe) in 76 (98.7%) out of the 77 (100%) respondents. A few studies (48) of the general population have been conducted that examines rates of exposure and PTSD in children and adolescents. Results from these studies indicated 15% to 43% of girls and 14% to 43% of boys have experienced at least one traumatic event in their lifetime. Of these children and adolescents who have experienced at least one traumatic event in their lifetime, 3% to 15% of girls and 1% to 6% of boys could be diagnosed with PTSD. The prevalence rates (98.7%) of PTSD found among circumcised Maasai girls in this study are even higher than those reported in a similar study in Filipino boys who had undergone ritual circumcision at PTSD prevalence rates of (69%) and (51%) among those who had undergone circumcision under medical conditions. The prevalence rates in this study are also higher than those found among 100 women who had undergone obstetric or gynecological procedures (50). In the study thirty of them fulfilled the DSM- IV criteria for a diagnosis of PTSD.

The results of this current study support the first hypothesis that Maasai girls who have undergone FGM/C exhibit psychological symptoms of PTSD. Despite the fact that female genital cutting presents a part of the participants' ethnic practices, the results imply that cultural embedment does not protect against the development of PTSD in such traumatic rituals. The present findings reveal that Female Genital Mutilation leads to the development of PTSD in the majority of the initiates. Previously, Goldman had reported that exposure to such traumatic experiences, which are beyond the limits of normal events, would result in PTSD (51).

5.4 Age

This study found no statistical significance between age and the development of PTSD though the adolescents at the time of circumcision exhibited higher PTSD rates (60.0%) the children (40.0%) and as they grew older the PTSD tended to lower. This variation is difficult to explain because of the narrow range of ages. A study (56) found in their study that children who had experienced Hurricane Hugo that younger children were more likely to develop PTSD though he cautions that this finding might have been due to the higher levels of anxiety found in the younger subjects. A local study (57) did not find any statistical significance between age and the development of PTSD though the study showed that all the age range categories interviewed did develop PTSD. Other studies have suggested that young or old age is a risk factor for the development of PTSD (58). These studies have however, compared populations with wider ranges of age than this study.

5.5 Family type, gender and birth position

Coming from a large family was expected to be a shield against the development of PTSD due to an increased networks of significant others for social support. This study found no statistical association between family size and the development of PTSD since all the respondents across the board minus one had varied levels of PTSD. However, girls from extended families exhibited slightly higher PTSD levels than the rest despite the fact that more social support of relatives was expected to be a protective factor. This study found no statistical significance between the development of PTSD and birth position in the family. All girls no matter their birth position did develop symptoms of PTSD which the author attributes to the circumcision experience

5.6 Girls' level of Education

Findings are mixed on whether education level is a significant predictor of posttraumatic stress levels. The National Co-morbidity Survey found education was not a significant predictor of PTSD after controlling for gender, age, and marital status (59). Breslau, Davis, André ski, Peterson, and Schultz (1997) found that education level was not significantly associated with PTSD (60).

In this current study, the girls level of education was found to have a statistical significance $p = >.000$ in the development of PTSD with girls in primary school exhibiting higher levels of PTSD than those in secondary though the significance was minimal. This finding is similar to that found by Breslau et al (1991) who found that individuals with lower levels of education had a greater percentage of PTSD than those with higher levels of education (60). In our current study this could be due to the fact that most of the girls in primary school had just experienced circumcision and the memory of it was still very fresh and frightening. Similar findings have been reported following Hurricane Hugo (61, 38). Higher education level itself may be protective, besides increased age; however this issue may need further study.

5.7 Parents' level of Education.

WHO found a lower prevalence of re-experiencing the trauma in its study in children who witnessed a public hanging in Iran to be associated with higher parents' level of education. The results were the opposite of Quota who had studied Palestinian children exposed to military violence. He concluded that those most vulnerable to avoidance symptoms were children whose mothers were better educated (62).

The current study found no statistical association between parents' level of education and the development of PTSD. This may be due to the traumatic nature of the ritual, cultural conformity, use of force, lack of communication about the traumatic nature of circumcision by parents, pressure and the general low levels of education in the community.

The surprising thing is that even parents with high level of education, like university level, as shown in this study, still take their children for circumcision and early marriage. The author postulates that this could be due to pressure from the family and due to cultural conformity so that one is not seen as an outcast in the community. It could also be due to the fact that some girls are motivated on their own to undergo it or due to peer pressure or due to force from some family members who have not gone to school. Some studies have found that low education level is a risk factor for the development of PTSD (20, 63, and 64). However, a study (20) done locally did find an association between higher education and PTSD among adults.

5.8 History of mental problems in a family

A low number, of respondents who reported of a history of mental problems in the family had PTSD though the study shows that there was no association between having a relative with mental problems and the development of PTSD unlike past studies done among diverse populations which showed an association between the two (64, 20, 23). This could be due to the small sample size and the fact that PTSD in this sample size was almost universal. A study done locally on former Mau Mau detainees (21) found a statistical association between the two and the author suggested that this could be due to a genetic component in vulnerability to PTSD.

5.9 Other Traumatic Events in life

Respondents who reported having experienced traumatic events and those who had not were equally affected by circumcision and developed PTSD. Traumatic events were not predictors of PTSD in this study. Current trauma was so big that there was almost universal presentation of PTSD in the respondents. One local study (59) found significance while still another local study (23) did not find any association between the development of PTSD and other traumatic events.

6.0 Word that best describe one's feelings towards circumcision

The current study found a statistical association between fear and the development of PTSD. Fear is one of the major components that an individual experiences when confronted by a traumatic event.

6.1 Methodological Considerations

The data presented in this study does not discriminate the specificity of PTSD whether it is acute, that is if the duration of symptoms is less than three months, whether it is chronic, that is if the duration of symptoms is three months or more; or delayed, that is if onset of symptoms do not appear for at least three months or more. It is possible that that some girls may have developed PTSD right after circumcision and may have exhibited evidence of PTSD symptoms but symptom severity may have declined over time.

6.2 Theoretical Implications

Despite some methodological limitations, this study clearly demonstrates the causal role of circumcision in the development of PTSD among Maasai girls in Kenya. The findings herein also shed light on previous studies between circumcision and PTSD (18). It is evidently clear that there is strong evidence of a causal relationship between circumcision and resultant psychological trauma.

Although the results of this study support the claim that FGM/C exerts a major negative impact on mental health of the girls, some caution is warranted in interpreting these results. The small group size presents an important limitation, and the results do not allow general conclusions about the prevalence of PTSD after FGM/C.

6.3 Practical Implication

This study suggests that there is need for the Maasai community to be informed about the psychological harm caused by female genital cutting. Goldman (43) who researched on the circumcision of Filipino boys commented that:

“As a society, we do not acknowledge the severe pain that circumcision causes, although it is amply documented. The discovery that some boys feel harmed by circumcision, whatever the prevalence of this feeling is a warning that should be heeded.”

These findings of PTSD among Maasai girls following circumcision need be part of any discussions providing informed consent in relation to circumcision of girls in Kenya.

6.4 Conclusion

Maasai girls who have under gone female genital cutting exhibit psychological symptoms of PTSD. However results of this study provide strong evidence of a direct causal relationship between female genital cutting and the subsequent development of PTSD in circumcised Maasai girls. Force which accounts for 51.0% and cultural conformity are the major forces in the perpetuation of circumcision on defenseless girls in Assailant. The study reveals that 76 of the respondents had various ranges of PTSD the highest range severity accounting for 54.5% and the remaining 1 respondent who did not exhibit PTSD

accounting for 1.3 %. This study suggests that there is need for the Maasai community to be informed about the serious psychological harm caused by circumcision.

6.5 Recommendations

This study is a pioneering research, documenting evidence of PTSD after female genital cutting in Maasai girls. Further investigation of the psychological and social effects of FGM/C will open a valuable new area of inquiry, particularly into the long-term harmful psychological effects of FGM/C forced on helpless Maasai girls and other girls in FGM practicing communities in Kenya. The strong statement on personal experience of FGM by a local female M.P from North Eastern on 5-07-08 while attending a seminar on FGM in Mombasa clearly points to the urgency of quick intervention in helping the helpless girls nationwide (65). Various strategies to curb it need to be put in place. The community should be encouraged to adapt other methods of transitions that make a girl child grow into an adult. They should be encouraged to adapt the passage of rites a method that other communities in the country have adapted. The Children's Act should come into play. The law should be enforced by the Government and those who break it should be arrested. Non Governmental Organizations (NGOs) should be encouraged and assisted to establish rescue centres for the girls who seek refuge evade circumcision. Apart from the NGOs, the government should establish many schools in the two districts so that parents do not get an excuse of not taking their children to school. Other economic methods of acquiring wealth should be encouraged instead of using the girls as a source of wealth by circumcising them early and marrying them off. Many female employees should be posted by the Government to these districts so that they can act as role models.

This will make the community learn from them. Incentives should be used by the government by ensuring that all Maasai ladies who have acquired education be appointed in government positions and should be encouraged to go home frequently and act as role models and also as anti – FGM activists in a way that will not antagonize them with their community. The community should also be enlightened on the health consequences of FGM.

BUDGET

<u>Item</u>	<u>Unit</u>	<u>Total</u>
1. Proposal preparation		
• Typing and printing	2,000.00	
• Photocopying	4,000.00	
• KNH Ethical committee fees	1,000.00	7,000.00
2. Materials & Equipment		
• Pens of 1 pack of 12		
• Folders 10 @ 127-	100.00	
• Stapler	100.00	
• Staples 1 pack small	400.00	750.00
	150.00	
3. Preparation of Questionnaires		
Typing, printing and photocopying 100 copies @ 157- * 10 pages @ 27-	30,000.00	30,000.00
4. Staff Costs		
Researcher 15 days @ 20007-	30,000.00	
Biostatistician 10 days @ 40007-	40,000.00	70,000.00
5. Transport and Communication		
Transport	15,000.00	
Telephone calls	5,000.00	20,000.00
6. Data Processing and Bookbinding	40,000.00	40,000.00
7. Typing preliminary results		
	2,000.00	2,000.00
8. Photocopies to 2 supervisors Typing final draft	1,500.00	1,500.00
9. Photocopy of final draft to supervisors		
Printing and binding final report	4,000.00	4,000.00
10. Binding 10 books	3,000.00	3,000.00
Sum Total		178,250.00

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APPENDIX 1: Consent forms for participants in a study of Post Traumatic Stress Disorder among Maasai girls who have undergone FGM/C in Kenya.

APPENDIX 1A: Consent explanation for the institution

CONSENT FORM: Consent for Institutional Heads of girls participating in the study:

I Reginah Ndiema am a master's student in Clinical Psychology at the University of Nairobi. I am collecting data on the prevalence of post traumatic stress disorder and its relationship with FGM/C. I am trying to find out how big a problem it is and how to treat it. We will ask you if you would like the girls who have undergone the FGM procedure to be part of this research study. If you agree, we would like to ask the girls some questions about these problems. The questions will be about your girls' experiences about painful experiences on FGM/C and how they have managed or have treated the problem.

Risk/discomfort : This involves invasion of personal life on questions related to a psychological disorder, FGM/C, family structure (marital status, psychological disorders, other medical problems, residence) but only I and the research assistant asking you the questions will know the answers as an individual.

Benefits: The girls will be referred within the system in case they have mental problems and they need attention. Also to be explained are benefits to the whole systems in putting into place appropriate policies based on the findings. The study will also help us to better treat mental health problems in relationship to FGM.

Confidentiality: What we talk about will be kept private to the extent allowed by the law. To protect the girls' privacy, we will keep the records under a code number and not the name. We will keep the records in a safe place and only the researcher and the supervisors will be allowed to look at them. The girls' name or other facts that might point to them will not appear when we present this study or publish the results.

To be in this study is by choice by you and the girls. If any of them do not want to join the study, they will still get the best possible medical care here at the clinics in or hospitals.

The girls can withdraw from the study at any time without any loss of benefits or any victimization whatsoever. If you have any questions about your rights as a subject, you can get in touch with the Officer in charge of that particular institution

CONSENT FORM

Name of Institutional Head -----

Today's date -----

Institutional head statement.

The above study has been explained to me and I agree to allow the girls to take part. If I change my mind and decide to withdraw the permission at any time, I understand that I and my girls will continue to receive medical care.

Institutional head's signature* _____

(Or mark of consent)

Witness' Name and signature* _____

Investigator's Name and signature _____

APPENDIX 1C: Assent explanation for research respondents

Assent for girls in Kenya participating in the study.

The investigator will read this consent to the girls at the time of enrollment.

Introduction

Although we got permission of your Institutional head to talk to you, I want to explain to you what we want so that you can decide yourself whether you want to participate.

Purpose of the study In this project, I am assessing the psychological effect of FGM/C among Maasai girls in Kenya. We want to find out how big a problem it is and how to treat it.

If you want to join in the study you will be asked to do something. We will ask you some questions about yourself, your family, mental illness and FGM. This will take about 45 minutes.

Discomfort Invasion of personal life on questions related to mental disorders, FGM, Family structure (marital status, mental health problems, other medical problems, residence)

Benefits The results of the relationship between FGM and the mental illness will be within two months. The results can help you get treatment for mental illness. The study will also help us to learn how to better treat mental illness among FGM practicing populations of Kenya.

Confidentiality What we talk about and the test results will be kept private to the extent allowed by law. To protect your privacy, we will keep the records under a code number rather than their name. We will keep the records in a safe place and only study staff will be allowed to look at them. The name or other facts that might point to you will not appear when we present this study or publish the results.

To be in the study it is their choice. If they choose not to join the study, you will still get the best possible medical care here at the clinic, or government hospitals. If you join in the study, but then have questions or decide you don't want to go on in it, you can leave it. If you decide that you do not want to go on in the study, you will still get the best possible medical care at the clinics or hospitals.

If you have any further questions about this research study, please ask your guardians/parents.

Will you be a part of our study? (CIRCLE, ONE) YES/NO

CONSENT

Name of child (Print) Date. _____

Name of child (Signature or mark of consent).

To be signed by witness.

The above statement has been read to the child and the child agrees to participate in the research project.

Name of witness (Print) Date _____

Name of witness (Signature or mark of consent)

Investigator's name and signature _____.

APPENDIX 1D: Maelezo ya Makubaliano ya Hiari

Kusomwa na maswali kujibiwa kwa lugha anayoelewa muhusika.

Utafiti Madhara ya Tafrani Miongoni mwa Wasichana waliotahiri

Chuo Idara ya Magonjwa ya Akili, Kitivo cha Matibabu, Chuo Kikuu cha Nairobi

Mtafiti Reginah S.Ndiema

Wasimamizi 1.Dkt. M.Mathai

2.Dkt. W.Kuria

Naomba rufusa kukuhusisha kwa mradi wa utafiti wa kimatibabu. Unahitajiwa kupata maelezo yafuatayo, ambayo yanagusia watu wote kwenye utafiti wa aina hii, wakiwa wagonjwa au la.

1. Unakubali kuhusika kwa hiari yako mwenyewe
2. Unaweza kujiondoa kwenye utafiti wakati wowote
3. Kutokubali kuhusika hakutakunyima huduma au chochote unachostahili kupata
4. Baada ya kusoma maelezo haya, tafadhali kuwa huru kuuliza maswali yoyote yatakayokuwezesha kuelewa kabisa utafiti huu.

Nia ya Utafiti Nifanya mradi huu, ninanua kuchunguza uwepo wa maradhi ya tafrani miongoni mwa wasichana waliofanyiwa tohari.

Utaratibu wa Utafiti Nitakuuliza maswali kuhusu hali ya maisha yako, ya jamii yako, matukio muhimu maishani mwako. Nitatumia hojaji maalum kuuliza maswali hayo, na hakuna uchunguzi wa kimwili utakaotekelezwa

Faida Inatarajiwa kuwa matokeo ya utafiti huu yatawezesha uboreshaji wa huduma ya afya ya kiakili kwa wasichana waliofanyiwa tohari Kenya na hata kwingineko duniani.

Uwekaji Siri Habari zote za kibinafsi kutokana na utafiti huu zitawekwa siri, na jina lako halitatumika kwenye utafiti au kwenye uandishi utakaofuata.

Wahusika Wanaotarajiwa kuhusishwa ni wasichana waliofanyiwa tohari

Watakaopatikana kuhitaji matibabu au usaidizi mwingine wataelezwa kwa kituo cha afya kilicho karibu.

FORMU YA MAKUBALIANO:

Mimi, mwenye sahihi iliyo hapo chini, ninajitolea kuhusika kwenye utafiti huu, ambao nimeelezwa nia na utaratibu wake kikamilifu na Reginah Ndiema. Ninaelewa kuwa habari zote nitakazotoa zitatumika kwa utafiti huu pekee.

Sahihi au alama -----

Tarehe.-----.

Maelezo haya yameelezwa mhathiriwa na amekubali kutia sahihi yake mbele yangu mimi shahidi wake.

Jina la shahidi-----

Tarehe-----

Reginah Ndiema-----

Tarehe-----.

APPENDIX 2: Questionnaires for a study of post traumatic stress disorder among Maasai girls who have undergone FGM/C in Kenya.

APPENDIX 2A: Social Demographic Questionnaire.

Specify whether consent and/or assent is signed and on record: Yes _____ No _____ If No do not continue with the interview. If yes specify consent/assent reference number _____

Participant ID: I _ I _ I _ I _ I _ I _ I _ I _ I _ I

School _____

Interviewer initials: _____

Date of Interview: ___/___/___ MM DD YYYY

Place of Interview: _____

Interview Start Time: _____: _____ (24-hr)

SECTION A:

Socio-Demographic Questionnaire

Serial Number _____

A. Personal Background

1. Year of birth _____
2. Religion _____
3. Home District _____ Division _____ Location _____
4. I belong to the sub tribe of the Maasai.
5. Class _____
6. Number of sisters _____
7. Number of brothers _____
8. Position of birth in family _____
9. Level of education for parent (father) None Primary Secondary
 University
10. My family's socioeconomic class can be described as Low Middle High
11. The type of my family can be described as Nuclear family Extended family
 Other, Please explain _____
12. Indicate whether you have experienced any of the following incidents during your lifetime.
 Serious road traffic accident Severe industrial accident Violent crime
 Natural disaster Sexual abuse, rape Some other unusual experience
 None of the above
13. Tick the word that best describes your feelings towards circumcision.
 Fear, Anger Other, Please specify _____
14. Have you undergone circumcision? Yes No
15. Age at the time of circumcision _____
16. Have you ever been treated for mental illness? Yes No

If yes, please indicate whether this was

Before circumcision

After circumcision

Not applicable

17. Family history of mental illness Yes No
18. How did you find your way to this institution? Where you legally rescued or you came on your own?
19. What motivated you to undergo the circumcision?
20. Has any of your siblings undergone the cutting?

Study ID. No

2B. Impact of Event Scale Revised (IES-R)

The following is a list of difficulties people sometimes have after stressful life events. Please read each item and then indicate how distressing each difficulty has been for you during the past seven days for the event and context we have been discussing (female circumcision). If the item did not occur during the last seven days, choose the 'Not at all' Option.

0 = Not at all 1 = A little bit 2 = Moderately 3 = Quite a bit 4 = Extremely

1. Any reminder brought back feelings about it
2. I had trouble falling asleep
3. Other things kept making me think about it
4. I felt irritable and angry
5. I avoided letting myself get upset when I thought or was reminded about it
6. I thought about it when I did not mean to
7. I felt as if it had never happened or it was not real
8. Pictures about it kept popping into my mind
9. I stayed away from reminders about it
10. I was jumpy and easily startled

11. I tried not to think about it
12. I was aware that I still had a lot of feelings about it, but I did not deal with them
13. Feelings about it were kind of numb
14. I found myself acting or feeling like I was back at that time
15. I had trouble staying asleep
16. I had waves of strong feelings about it
17. I tried to remove it from my memory
18. I had trouble concentrating
19. Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart
20. I had dreams about it
21. I felt watchful and on guard
22. I tried not to talk about it

2 B. Impact of Event Scale Revised (IES-R).

Yafuatayo ni orodha ya mambo magumu ambayo watuhupitia baada ya matukio magumu maishani. Tafadhali soma kila sehemu ambayo inaonyesha jinsi kila kitukio lilivyo kuwa gumu kwako kwa muda wa siku saba silizopita hasa ukirejelea tukio la tohara kwa wanawake. Ikiwaa jawabu hiyo hukuweza kuona na kupitia sehemu hizo kwa muda wa siku saba zilizopita basi utachagua sehemu ya “Haikuwepo kabisa”

0 = Haikuwepo kabisa 1 = Ilikuwepo kidogo 2 = Ilikuwepo kwa kadiri/kiasi

3 = Ilikuwepo kwa kiasi kikubwa 4 = Ilikuwepo zaidi/ sana

- (1) Kitu chochote ambacho ulikiona kilileta fikira tena ya tukio ilo.
- (2) Ukumbusho wowote ule ulileta fikira na hisia kuhusu tohara
- (3) Mambo mengine yalikuwa yakinifanya kufikiria kuhusu tohari hiyo.
- (4) Nilijisikia nikiwa nimekerwa na kukasirika
- (5) Nilijizuia nisije nikakasirika wakati nilipokuwa nikifikiria kuhusu toharaama nilipokumbushwa kuhusu tohara hiyo

- (6) Nilijikuta najifikiria kuhusu tohara wakati ambapo sikutaka kufikiria
- (7) Nilifikiria na kuona jambo hili halikuwai kutendeka kwangu au si halisi
- (8) Nilikuwa nikipata taswira/picha ya tohara kila wakati katika akili yangu.
- (9) Nilijieusha na jambo lolote ambalo lingenikumbusha kuhusu tohara
- (10) Nilikuwa na wasiwasi na hofu na kushtuka kwa urahisi.
- (11) Nilijaribu sana nisifikirie kuhusu tohara hiyo.
- (12) Nilijua wazi kuwa nilikuwa bado na fikira nyingi kuhusu tohara lakini sikujishughulisha kusuluhisha
- (13) Fikira kuhusu tohara silinifanya kuganda mwili
- (14) Nilijikuta nikitenda na kuhisi kama wakati ule wa tohara
- (15) Nilikuwa na shida ya kuendelea na usingisi
- (16) Nilikuwa na fikira na hisia nzito kuhusu tohara
- (17) Nilijaribu kuzitoa kwenye akili yangu
- (18) Nilikuwa na shida ya kufikiria
- (19) Fikira kuhusu tohara zilifanya mwili wangu kubadilika nikatokwa na jasho, nikapata shida ya kupumuwa, nikasikia kichafu (roho kuchafuka) na moyo kupiga kwa kasi
- (20) Nilikuwa na ruyia/ndoto kuhusu tohara
- (21) Nilikuwa mwangalifu na makini sana
- (22) Nilijaribu nisiongee kuhusu tohara.

2C Interview Guide For The Focused Group Discussion

1. How did you experience the procedure (ritual) that made you run away from home.?
2. How was it during the procedure and after?
3. Did you know what to expect before it happened?
4. Were you prepared for it?
5. What do you think was the purpose of the procedure?
6. Have you experienced any difficulties which you think are related to this procedure since?

7. Do you think FGM/C is useful in the community?
8. What has been your experience in this home?
9. Have you had a chance to talk about the problems which brought you here?
10. Would you encourage other girls to go through the same procedure that you went through?
11. Was there anything useful that you learnt from the procedure?
12. Are your parents proud of you because you went through FGM?
13. After the experience of undergoing FGM/C, do you approve its ban by the Government?
14. What advice would you give to a girl who is about to undergo the procedure?
15. If you were given a second chance, would you undergo the ritual?
16. What are your feelings towards the other girls who have undergone the FGM?
17. What is your view about stay at this institution?
18. Would you prefer to live in your home or in this institution?
19. Is it easy to forget the FGM experience just like any other painful event that you counter in life?

Mahojiano ya Kikundi [Kiswahili translation of the guided interview]

- (1) Uliona vipi utaratibu wa tohara uliokufanya utoroke kutoka nyumbani?
- (2) Ilikuwaje wakati wa tohara na baadaye?
- (3) Je ulijua kile ambacho kitatendeka kabla ya kutahiriwa?
- (4) Je ulikuwa umejitayarisha kwa yote hayo?
- (5) Je unafikiri lengo la tohara ni nini?
- (6) Je umeona shida zozote au matatizo yoyote ambayo yanatokana na kutahiriwa?
- (7) Unafikiri tohara ni muhimu katika jamii?
- (8) Tangu uwe hapa ni nini ambacho umeshuhudia?
- (9) Umpata nafasi yeyote ya kuongea kuhusu shida zilizokulete hapa?
- (10) Je unaweza kuwahimiza wasichan wengine kutahiri?
- (11) Je kuna kitu chochote muhimu ambacho ulijufunza kutokana na tohara?
- (12) Je wazazi wako wanaona fahari kwasababu ulitahiri?

- (13) Baada ya wew kutahiri unakubaliana na mwito wa serikali wa kufunjilia mbali tohari kwa wasichan?
- (14) Nimawaidha gani ambayo unaweza kumpa msichana ambaye anajitayarisha kutahiri?
- (15) Kama ungepewa nafasi ingine je ungetahiri?
- (16) Unafikiria nini kuhusu wasichana waliotahiri?
- (17) Maoni yako kuhusu kukaa hapa ni yapi?
- (18) Je ungependelea kukaa hapa au nyumbani kwenu?
- (19) Je ni rahisi kusahau yale uliyopitia ukitahiriwa kama jambo lolote ambalo huwa chungu maishani?



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Ref: KNH-ERC/ 01/ 395

12th May, 2008

Reginah Ndiema
Dept. of Psychiatry
University of Nairobi

Dear Reginah

RESEARCH PROPOSAL: "THE PREVALENCE OF POST TRAUMATIC STRESS DISORDER AMONG MAASAI GIRLS WHO HAVE UNDERGONE FGM/C AS A PREREQUISITE TO EARLY MARRIAGE" (P71/4/2008)

This is to inform you that the Kenyatta National Hospital Ethics and Research Committee has reviewed and **approved** your above cited research proposal for the period 12th May, 2008 – 11th May, 2009.

You will be required to request for a renewal of the approval if you intend to continue with the study beyond the deadline given. Clearance for export of biological specimen must also be obtained from KNH-ERC for each batch.

On behalf of the Committee, I wish you fruitful research and look forward to receiving a summary of the research findings upon completion of the study.

This information will form part of database that will be consulted in future when processing related research study so as to minimize chances of study duplication.

Yours sincerely

PROF A N GUANTAI
SECRETARY, KNH-ERC

c.c. Prof. K.M. Bhatt, Chairperson, KNH-ERC
The Deputy Director CS, KNH
The Chairman, Dept. of Psychiatry, University of Nairobi
Supervisors: Dr. Muthoni Mathai, Dept. of Psychiatry, University of Nairobi
Dr. Wangari Kuria, Dept. of Psychiatry, University of Nairobi

Clearance



REPUBLIC OF KENYA

**MINISTRY OF HIGHER EDUCATION SCIENCE
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When Replying please quote

MOHEST 13/001/38C370/2

Reginah Senke Ndiema
University of Nairobi
P.O. Box 30197
Nairobi

Dear Madam,

RE: RESEARCH AUTHORIZATION

Following your application for authority to conduct research on the prevalence of post traumatic stress disorder (PTSD) among Maasai Girls who have undergone FGM as a pre-requisite for early marriage, I am pleased to inform you that you have been authorized to conduct research in Transmara and Kajiado Districts for a period ending 30th June 2008.

You are advised to report to the District Commissioners and the District Education Officers, Transmara and Kajiado Districts before embarking on your research project.

On completion you are expected to submit two copies of your research report to this office.

Yours faithfully,


M.O. ONDIEKI
For: PERMANENT SECRETARY

c.c. The District Commissioner
Transmara District
Kajiado District

The District Education Officer
Transmara District
Kajiado District

Research Permit.