



Centre for Population, Family & Health
Faculty of Social Sciences
University of Antwerp



International Centre for Reproductive Health
Faculty of Medicine and Health Sciences
Ghent University

To medicalize or not to medicalize: Is that the question?

Exploring medicalization of female genital cutting in Egypt and Kenya

Thesis submitted for the degree of
Doctor of Social Sciences: Sociology, at the University of Antwerp
& Doctor of Health Sciences, at Ghent University

to be defended by

Nina Van Eekert

SUPERVISORS

Prof. dr. Sarah Van de Velde

Prof. dr. Els Leye

Antwerp, 2020

ISBN: 9789057286187

D/2020/12.293/25

Members of doctoral commission

Prof. dr. Sarah Van de Velde

Prof. dr. Els Leye

Prof. dr. Edwin Wouters

Prof. dr. Stanley Yoder

Additional members of the doctoral jury

Prof dr. Petra Meier

Prof dr. Samuel Kimani

ABSTRACT

Today, medicalization is one of the major shifts within the practice of female genital cutting (FGC). Medicalization, as defined by the WHO, refers to any situation in which the practice is performed by a trained health professional, at a public or private clinic, at home, or elsewhere. The question “to medicalize or not to medicalize” is a hot topic in the debate on FGC, typically answered by policy makers through the implementation of an anti-medicalization discourse. Yet, in this Ph.D. dissertation, we argue that the discussion on medicalization is often built on moral and ethical arguments, with little empirical grounding. More specifically, we argue it is essential to incorporate the view of practicing communities themselves in the debate.

The overarching research questions within this Ph.D. dissertation are “Why do mothers opt to medicalize their daughters’ cut and how does this decision relate to her social position within her community?”. In this dissertation we aim to identify the social correlates of the shift towards medicalization, and the meaning and motivation behind them.

In Egypt, we examined the association between mothers’ social position, social norms surrounding the practice, the mothers’ daughters’ risk to be cut and the possible medicalization of this cut. In Kisii County, Kenya, we explored the mothers’ motivation to medicalize their daughters’ cut and we discussed the shift towards medicalization in relation to other shifts in the practice.

The first important conclusion of our research is that increasing medicalization and decreasing FGC prevalence can coexist. Increasing medicalization percentages do not necessarily increase girls’ risk to be cut. Moreover, we indicated three major drivers behind mothers’ choices to medicalize their daughters’ cut. Firstly, mothers argue that they opt for a medicalized cut to reduce the health risks related to the cut. They seek a less harmful but still culturally acceptable alternative. Secondly, the medicalization of FGC is socially stratified. Thirdly, medicalization may act as a social norm itself.

In conclusion, we state that the debate about medicalization should be more nuanced and that the general discourse on medicalization should be challenged and empirically grounded. Before we are able to answer the question “to medicalize or not to medicalize”; many more questions lay before us

A WARM THANK YOU

Hier ligt het dan: mijn doctoraat. Wat ben ik trots. Een doctoraat schrijven, dat had ik tot vier jaar geleden nooit verwacht of zelfs gedacht, toch heb ik het gedaan - maar niet alleen.

Doorheen mijn doctoraat werd ik bijgestaan door een professioneel netwerk vol vaardigheden, kwaliteiten en leermogelijkheden. In eerste instantie was er mijn promotorteam. Ik had het geluk een dubbeldoctoraat te doen en te mogen genieten van de begeleiding van twee promotoren: Sarah Van de Velde aan de UAntwerpen en Els Leye aan de UGent.

Sarah, jij stond aan de UA in voor mijn dagdagelijkse begeleiding en jouw betrokkenheid en engagement om dit doctoraatstraject tot een goed einde te brengen waren van onschatbare waarde. Ik bewonder je kennis, professionaliteit maar ook empathie en hulpvaardigheid. Qua work-life balance ben je een waardevol rolmodel in de academische wereld. Ik ben blij dat ik als jonge vrouw aan het begin van een carrière een voorbeeld zoals jou heb gehad.

Els, bedankt dat ik bij jou aan de UGent kon ik leren van je jarenlange expertise rond het thema vrouwelijke genitale verminking (VGV). Wat jij allemaal hebt gedaan rond VGV is bewonderingswaardig. Ik ben trots bij jouw team te horen en via jou in het VGV-netwerk geïntroduceerd te worden.

Moreover, I would like to thank the members of my PhD commission, Edwin Wouters and Stanley Yoder, for your valuable feedback throughout this PhD trajectory. I would also like to thank the jury. Petra Meier, for being a member of my PhD jury as well as for supporting Collectief Positief with the organization of an art exhibition about female genital cutting at our University. Samuel Kimani, for your enthusiastic presence at conferences and receiving me at the ACCAF in Nairobi. I'm proud you were all willing to be member of my PhD jury.

Ik bedank ook graag iedereen met wie ik professioneel samenwerkte, zowel in Antwerpen als in Gent. Ik geloof dat samenwerking ons enkel kan bijleren – samen weten we meer, zijn we sterker en kunnen we meer bereiken. I would also especially like to thank all the wonderful people I met during my research stay in Kenya and the respondents who made this study possible. Finally, I would like to thank the university staff members who supported me in organizing international collaborations, innovative science communication, day-to-day university struggles and organizing this defense.

Collectief Positief heeft ook een bijzondere plaats in dit traject. Ik ben fier op ons. Het is voor mij erg veel waard om samen met jullie en Akina Ties rond VGV te werken. Ik vind het

belangrijk waarden om te zetten in daden en onderzoek te doen vanuit een betrokkenheid. Dit heb ik samen met jullie tot uitvoering kunnen brengen.

Als socioloog en sociaal werker geloof ik sterk in het belang van je sociale context op wie je bent en waar je staat in het leven. En waar ik nu sta, dat is absoluut mede de verdienste van mijn sociale context. Ik ben dolgelukkig met mijn sociale netwerk en wil hier dan ook de kans nemen om zij die belangrijk voor mij zijn in de bloemetjes te zetten.

Ik ben samen met mijn broer opgegroeid in een warm nest. Dankzij mijn mama en papa heb ik een zorgeloos leven waarin ik me kan concentreren op wat ik wil en kan doen; waar ik ruimte heb om te leren, te slagen, te falen, te vallen en weer op te staan. Mijn mama en papa geloven in alles wat ik doe en steunen me onvoorwaardelijk – zo onvoorwaardelijk dat het zelfs moeilijker is hen ervan te overtuigen dat ik iets niet kan, dan dat ik het wel kan. Mama en papa, merci, jullie zijn mijn steun en toeverlaat, mijn rots in de branding.

Mijn gezin is deel van een bredere geweldige familie. De familie Jeanty – met mijn geweldige Boms en Bompas en super jolige familie Merkssem (inclusief beste petekind). De familie Van Eekert met als hoofd Keizer Van Eekert en zijn Keizerin Mertens (inclusief beste meter).

Naast familie ben ik al van jongs af aan begonnen aan mijn meest waardevolle verzameling; vrienden. Jullie zijn stuk voor stuk collectors items. De lagere school vriendinnen – die mijn doctoraat reeds voorspelden met de bijnaam '*Nina Vagina*'. De vrienden en vriendinnen van het middelbaar – voor wie ik *so grateful* ben. De unief-vrienden en collega's die nu meer dan collega's zijn. Den basket – die ik zo graag zie omdat we zowel op en naast het veld een zootje ongeregeld zijn. Den 68 – om te wildebrassen, te lachen en zowel tijdens als na onze scoutscarrière zoveel leut te maken. De beste en leukste kiné-vriendin van Antwerpen, die het ergonomisch mogelijk maakt zoveel plezier te maken en zonder wie ik hier misschien wel letterlijk niet had gestaan. Ik ben zo dankbaar voor al het plezier dat ik met mijn vrienden kan beleven – de uitstapjes, dansjes, de pintjes en vriendjes.

Dan is er natuurlijk nog mijn lief, mijn Bavo – die het ondertussen al meer als 2 doctoraatstrajecten met mij uithoudt. Ik wil je bedanken om mijn speelkameraadje, mijn vriend, mijn lief, mijn thuis en mijn vervelende vent te zijn. Ik wil je bedanken om via u deel uit te maken van een geweldige schoonfamilie. Ik wil je bedanken om lief te hebben wie ik liefheb en te mogen lief hebben wie jij liefhebt. Ik zie je zo graag en ik ben zo blij dat jij mij ook graag ziet.

TABLE OF CONTENTS

1. INTRODUCTION	1
2. BACKGROUND	2
2.1. Introducing Female Genital Cutting (FGC)	2
2.1.1. FGC: definition and typology	2
2.1.2. Terminology	4
2.1.3. Health risks attributable to FGC.....	5
2.1.4. FGC prevalence worldwide	6
2.2. State of the art: empirical evidence on social correlates of changes in FGC prevalence	8
2.2.1. The important role of women’s social position in the (dis)continuation of FGC	8
2.2.2. FGC as a multilevel phenomenon: the influence of FGC as a social norm	10
2.2.3. Increasing legislation on FGC and its detachment from practising communities.....	12
2.3. Medicalization of Female Genital Cutting (FGC)	14
2.3.1. The classic sociological approach to medicalization trends	15
2.3.2. Discussing the drivers of medicalization applicable to the practice of FGC.....	18
2.3.3. The complexity of various moral dilemmas concerning the medicalization of FGC....	26
3. RESEARCH OBJECTIVES	28
3.1. General research objective.....	28
3.2. Specific research objectives.....	29
4. DATA & METHODOLOGY	31
4.1. Study setting.....	31
4.1.1. Note on impact of COVID-19	31
4.1.2. Case study 1: Medicalization of FGC in Egypt	32
4.1.3. Case study 2: Medicalization of FGC in Kenya	40
4.2. Data.....	47
4.2.1. Quantitative research.....	47
4.2.2. Qualitative research	60

5. RESULTS.....	67
5.1. Article 1: An examination of the medicalization trend in female genital cutting in Egypt: how does it relate to a girl’s risk of being cut?	67
5.1.1. Abstract.....	68
5.1.2. Introduction	69
5.1.3. Data and Methods.....	74
5.1.4. Results.....	79
5.1.5. Discussion and Conclusion	84
5.1.6. Appendix to article 1	87
5.2. Article 2: The association between women’s social position and the medicaliz ation of female genital cutting in Egypt.....	91
5.2.1. Abstract....	92
5.2.2. Introduction	93
5.2.3. Data and Methods.....	98
5.2.4. Results.....	100
5.2.5. Discussion and Conclusion	107
5.3. Article 3: The medicalization of female genital cutting: harm reduction or social norm?	111
5.3.1. Abstract....	112
5.3.2. Introduction	113
5.3.3. Data and Methods.....	119
5.3.4. Results.....	123
5.3.5. Discussion and Conclusion	128
5.3.6. Appendix to article 3	133
5.4. Article 4: Exploring medicalization of female genital cutting within the Kisii county, Kenya	135
5.4.1. Abstract....	136
5.4.2. Introduction	137
5.4.3. Data and Methods.....	141
5.4.4. Results.....	144
5.4.5. Discussion and Conclusion	153

6. CONCLUSION	163
6.1. Main findings for each research objective.....	163
6.1.1. Research Objective 1: To explore the association between FGC medicalization trends and a girl’s risk of being cut (Egyptian context)	163
6.1.2. Research Objective 2: To explore the association between the mother’s social position and her decision to medicalize her daughter’s cut or not (Egyptian context)	165
6.1.3. Research Objective 3: To explore how social norms concerning FGC and its medicalization influence the association between the mother’s social position and her decision concerning her daughter’s cut (Egyptian context)	167
6.1.4. Research Objective 4: To explore the mothers’ motives for medicalizing their daughter’s cut or not, in a context where the shift towards medicalization is accompanied by steep decreases in FGC prevalence (Kisii context)	168
6.2. Limitations and suggestions for future research	171
6.2.1. A critical evaluation of the current definition of the medicalization of FGC.....	171
6.2.2. A critical examination of measurement bias due to underreporting	172
6.2.3. A critical examination of the presence of causality	173
6.2.4. A critical examination of mothers as primary decision-maker concerning FGC	173
6.3. Conclusion... ..	175
7. APPENDIXES.....	179
7.1. Reflection on the position of the researcher	179
7.2. Ethical approvals.....	183
7.2.1. Ethical approval 1: UA Ethics Committee for the Social Sciences and Humanities ...	183
7.2.2. Ethical Approval 2: AMREF Health for Kenyan NACOSTI ethical approval	184
7.3. Information sheet participants	185
7.4. Consent form for participants	191
7.5. Drop-off questionnaire	193
7.6. Topic list.....	195
7.7. Summary of research results for respondents.....	201
7.7.1. English version: Summary of research results for respondents	201
7.7.2. Ekegusii version: Summary of research results for respondents	204

7.8. Declaration of co-authors' contributions.....	207
7.8.1. Article 1: An examination of the medicalization trend in female genital cutting in Egypt: how does it relate to a girl's risk of being cut?	207
7.8.2. Article 2: The Association Between Women's Social Position and the Medicalization of Female Genital Cutting in Egypt.....	207
7.8.3. Article 3: The medicalization of female genital cutting: harm reduction or social norm?	208
7.8.4. Article 4: Why do mothers opt for a medicalized cut and how does this relate to decreasing FGC prevalence?	208
7.9. Curriculum Vitae Nina Van Eekert	209
7.10. About the illustrations	213
7.11. Nederlandse samenvatting.....	215
8. BIBLIOGRAPHY.....	217

1. Introduction

At the start of this Ph.D. trajectory four years ago, when I was researching the topic of female genital cutting (FGC) – all procedures that involve partial or total removal of the external female genitalia, or other injury to the female genital organs for non-medical reasons [1, 2] – I soon became intrigued with the issue of medicalization. The medicalization of FGC – specifically situations in which FGC is practised by a health professional [3] – is one of the major shifts within the practice of FGC today [4]. While the PhD project I was employed on originally aimed to conduct comparative prevalence studies between countries, I asked whether the focus could be shifted to the medicalization of FGC, a proposal which was willingly accepted by my supervisors.

The academic and policy articles that I read concerning the medicalization of FGC addressed the question of whether medicalization was to be discouraged or encouraged, and whether it was a positive or negative development. To medicalize or not to medicalize? – that was the question, and it became apparent that this was a hot topic of debate. Underlying the discussion of this question were various ethical debates: whether FGC could, under certain circumstances, be carried out safely, or whether all forms of the practice should be prohibited no matter how minimal [5].; whether it was more important to protect the health of women at the expense of legitimating a destructive practice, or to hasten the elimination of a dangerous practice altogether, while allowing women to die from preventable conditions [6]. Anti-medicalization policies implemented at the regional (e.g. activist organizations), the national (e.g. national legislation) and the international levels (e.g. by the WHO) are mainly based on the ethical argument that preventing the medicalization of FGC is an essential component of a holistic, human rights based approach to the elimination of the practice, and that no forms of FGC should be tolerated [7]. Nevertheless, despite policies at the national and international levels clearly condemning medicalized FGC – the empirical basis for the debate, which could prove or disprove the moral argument in this discussion, remained under-researched.

The anti-medicalization narrative is widely based on the assumption that medicalized FGC would counteract FGC abandonment and might legitimize the practice. However, at that time, I could not find any empirical basis for this assumption. Moreover, while reading these policy arguments, I asked myself what practising communities thought about this shift towards medicalization – whether they perceived it as positive or not, and what the reasons behind their perceptions were.

As I could not find any comprehensive answers to these questions in previous studies, I decided that the shift towards medicalization would be the focus of my PhD dissertation. As a social worker and sociologist, I value the idea of attempting to see through the optics of the practising communities and the importance of gaining insight into their understanding; and this is what I decided to do. I am convinced that before being able to answer the question of whether 'to medicalize or not to medicalize', there is need for a more in-depth understanding of the actual circumstances within practising communities.

In this introductory chapter, section two will broadly introduce the practice of FGC and the current changes within the practice. In the third section, I will discuss the shift towards medicalization in general terms, as well as the possible drivers behind these changes. After discussing the current state of the art concerning the drivers of medicalization, I will outline the research objectives that will be approached, discussed and concluded upon within the subsequent chapters of this PhD dissertation.

2. Background

2.1. Introducing Female Genital Cutting (FGC)

2.1.1. FGC: definition and typology

Female genital cutting (FGC) is defined by the World Health Organization (WHO) as 'all procedures that involve partial or total removal of the external female genitalia, or other injury to the female genital organs for non-medical reasons' [1, 2].

The WHO has classified FGC into 4 major types [8]:

Type I: **Clitoridectomy** - The partial or total removal of the clitoral glans (the external and visible part of the clitoris, which is a sensitive part of the female genitals, with the function of providing sexual pleasure to the woman), and/or the prepuce/clitoral hood (the fold of skin surrounding the clitoral glans).

Type Ia: removal of the prepuce/clitoral hood (circumcision)

Type Ib: removal of the clitoral glans with the prepuce (clitoridectomy)

Type II: Excision - The partial or total removal of the clitoral glans and the labia minora (the inner folds of the vulva), with or without removal of the labia majora (the outer folds of skin of the vulva).

Type IIa: removal of the labia minora only

Type IIb: partial or total removal of the clitoral glans and the labia minora (prepuce may be affected)

Type IIc: partial or total removal of the clitoral glans, the labia minora and the labia majora (prepuce may be affected)

Type III: Infibulation - Narrowing of the vaginal opening with the creation of a covering seal. The seal is formed by cutting and repositioning the labia minora, or labia majora. The covering of the vaginal opening is done with or without removal of the clitoral prepuce/clitoral hood and glans (Type I FGC).

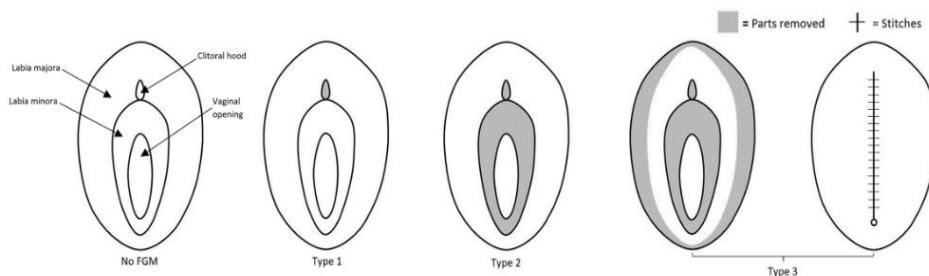
Type IIIa: appositioning of the labia minora

Type IIIb: appositioning of the labia majora

Type IV: All other harmful procedures to the female genitalia for non-medical purposes, for example nicking, pricking, piercing, incising, scraping and cauterization.

The vast majority of women and girls who have undergone FGC indicate flesh was removed without being sewn closed – and thus Types I and II FGC are most widely performed [2]. Infibulation is concentrated in three countries with the highest rates: Eritrea,¹ Somalia and Djibouti [2].

Figure 1. FGC typology [9]



¹ Which also has the highest rates of nicking.

2.1.2. Terminology

The terminology to describe the practice of FGC has changed over time, in line with the evolution of the fight for FGC abandonment and, thus, the debates surrounding the practice and the paradigm shifts in the perception of the practice [10]. The first studies concerning FGC were conducted from an anthropological perspective, focusing on the ritual aspect of the practice and using the term ‘female circumcision’ [10]. The WHO then described FGC as ‘customs involving ritual practices’ [10]. However, the term ‘female circumcision’ may give the impression that it is similar to male circumcision, while the health consequences clearly differ in severity [11]. Therefore, from the mid-1970s, under the influence of FGC feminist movements, FGC became framed as a health issue, emphasizing the harmful effect on girls and women’s health. Later on, a human rights perspective was added [2].

The term ‘female genital mutilation’ (FGM) was also introduced, and in 2011 it was the term recommended by the WHO [10, 11]. However, describing the practice as a form of mutilation entails judgement and might sound condemnatory to women opting to continue the practice [11]. In 2013, UNICEF introduced the term ‘female genital mutilation/cutting’ (FGM/C) – which to date is the most widely used terminology [2, 11]. ‘FGM/C’ is meant to highlight that the practice is a violation of the rights of girls and women, and it aims to capture the significance of the term ‘mutilation’ at the policy level, while the addition of ‘cutting’ to the term also recognizes the importance of employing respectful terminology when working with practising communities [11]. Researchers tend to use the term Female Genital Cutting (FGC) because of its neutrality [12]. A recent paper by Earp and Johnsdotter (2020) argues for the use of FGC, claiming that FGM is imprecise, inaccurate, misleading, harmful, ethnocentric and sexist [13].

This PhD research was preceded by a profound discussion of terminology. I opted for the term Female Genital Cutting (FGC) as it is the most neutral terminology and most closely describes the nature of the practice [2]. I believe that striving for neutrality is important in research. As a sociologist and researcher, but also as a woman who was born and raised in a non-practising country, I wanted to conduct research in order to understand the practice, without imposing an opinion or judgement of values (see appendix 7.1. for a broader reflection on my position as a researcher). Therefore, I chose not to use terminology such as ‘circumcision’ or ‘mutilation’. Moreover, in my research, I focus on drivers behind the medicalization of FGC within the practising communities, and thus it is important that the term can be used when having a conversation within the community. Literal translation of FGC may be used in practising

communities [2], especially as I want to communicate openly with women without them feeling judged.

2.1.3. Health risks attributable to FGC

FGC has no known health benefits. On the contrary, it is known to be harmful to girls and women in many ways [10, 14, 15]. It interferes with the natural functions of girls' and women's bodies, as it removes and/or damages healthy genital tissue. All forms of FGC entail health risks. The risk of health complications increases with the severity of the cut (whereby severity corresponds with the amount of tissue damaged) [16].

Based on Kimani and Shell-Duncan's report, which offers a synthesis of evidence on the health impacts of female genital mutilation/cutting [15], it is apparent that previous research identifies five categories of health impacts attributable to FGC: immediate, genito-urinary, obstetric, sexual and psycho-social complications [15]. Possible immediate harm resulting from the cutting includes pain, bleeding, shock, genital tissue swelling, fever, infection, urination problems, and delayed wound healing. In the worst case, these complications can even result in a girl's death. Chronic genital and/or urinary problems might include vaginal discharge, vaginal itching, painful urination, menstrual problems, chronic genito-urinary infections, reproductive tract infections, genital infections, urinary tract infections, bacterial vaginosis, genital tissue damage, HIV, sexually transmittable diseases and/or infertility. Obstetrics outcomes attributed to FGC are difficult and/or prolonged labour, tears and lacerations, caesarean section, episiotomy, instrumental delivery and/or postpartum haemorrhage. Moreover, cut girls and women are more likely to have painful intercourse, no sexual desire, not initiate sex, have less knowledge of sexually sensitive parts of their bodies, less sexual satisfaction and less experience of orgasm compared to uncut girls and women. In addition to the physical and sexual consequences of FGC, it might also result in psycho-social complications such as acute anxiety, depression, neuroses, psychoses and post-traumatic stress disorder.

The negative health consequences of FGC are often under-reported [15]. The fact that many girls and women undergo FGC as infants or children implies that they may not remember the immediate adverse effects of the cut. Moreover, the long-term negative health consequences, such as complications during child birth or later in life, might not be linked to FGC, but be considered normal and natural to women, especially among populations where FGC

is almost universal due to social norms [15, 17]. When the sexual consequences of FGC are discussed, it is important to acknowledge that female sexuality is multifactorial – it is anatomical, hormonal, psychosexual, cultural and contextual [18] – and thus it depends on partner factors and personal experiences that take place in a context that has a certain sexual script and public discourse on FGC. When discussing sexual satisfaction, all these aspects should be taken into account, such that sexual complaints should not simply be attributed to FGC [17].

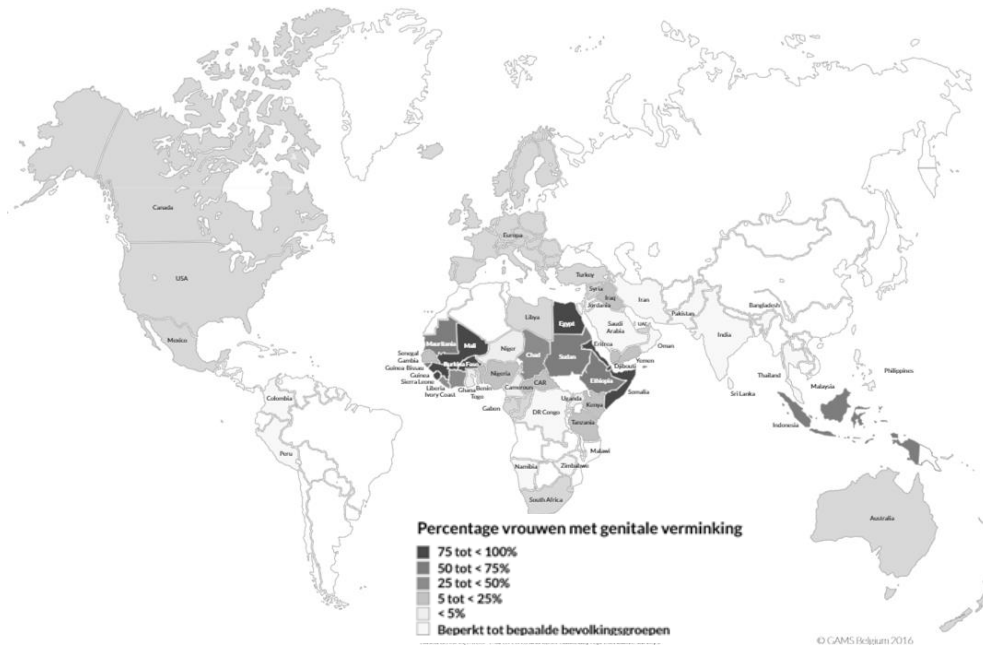
2.1.4. FGC prevalence worldwide

At least 200 million girls and women alive today have undergone female genital cutting, and every year 3.6 million girls are at risk of undergoing the procedure [2, 11]. The precise number of girls and women worldwide who have undergone FGC remains unknown. Estimated FGC prevalence is based on countries with national representative data on FGC [11, 19, 20] – and thus the total number worldwide may be substantially higher. Today, there are 32 countries with representative data on FGC prevalence (Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Côte d'Ivoire, Djibouti, Egypt, Eritrea, Ethiopia, The Gambia, Ghana, Guinea, Guinea-Bissau, Indonesia, Iraq, Kenya, Liberia, Mali, Maldives, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, Somalia, Sudan, Tanzania, Togo, Uganda, Yemen, Zambia) [2, 11, 19-21]. However, previous research demonstrates that FGC is even more widespread worldwide, with anecdotal evidence of FGC on all continents. In South America, there is anecdotal evidence for Colombia, Peru, Mexico, Brazil; in Eastern Europe, for Georgia and Russia; in the Middle East, for Iran, Oman, Kuwait, United Arab Emirates, Jordan, Israel; in southeast Asia, for Malaysia, Singapore, Thailand, the Philippines, India, Pakistan, Sri Lanka, Bangladesh; and in Africa also for Congo DRC and Malawi [19, 20]. Moreover, increasingly, women and girls in immigrant communities in the diaspora, in countries such as the United States, Canada, New Zealand, Australia and various countries in Europe, are affected by FGC [2, 20].

The practice is highly concentrated in a range of countries on the African continent from the Atlantic coast to the horn of Africa, in areas of the Middle East and in some countries in Asia, with wide variance in prevalence [19]. FGC prevalence varies greatly within and between countries, which is most markedly associated with ethnicity [2]. For example, while the practice is almost universal in Somalia, Guinea and Djibouti, where the levels are around 90%, it affects no more than 1% of adolescent girls in Cameroon, the Maldives and Uganda [19]. More than half

of cuts worldwide occur in just three countries: Indonesia, Egypt and Ethiopia [21]. Ethnic variation is clearly shown in Kenya where, for example, FGC is almost universal in Somali girls and women, while in the Luo and Luhya almost no girls and women are cut [22].

Figure 2. Prevalence of FGC in the world (GAMS Belgium 2016)



Looking at the difference of FGC prevalence between the oldest age cohorts (45-49) and youngest age cohorts (15-19) provides an indication of changes that have recently occurred among the younger cohort [2]. Little or no decline is seen in 15 countries (Cameroon, Chad, Djibouti, The Gambia, Ghana, Guinea, Guinea-Bissau, Iraq, Mali, Niger, Senegal, Somalia, Sudan, Uganda, Yemen). In 14 countries, substantial declines in prevalence can be seen, ranging between 7 (in Egypt) and 41 percentage points (in Liberia). The other 12 countries where decreasing prevalence can be observed are: Benin, Burkina Faso, Central African Republic, Côte d’Ivoire, Eritrea, Ethiopia, Kenya, Mauritania, Nigeria, Sierra Leone, Tanzania and Togo. In half of these countries, the decline has occurred recently, while in the other half it has occurred steadily over time. In some cases, the change took place several decades ago and may have preceded the scaling up of the fight for abandonment, for others it might be a consequence of these interventions. Thus, while FGC prevalence is decreasing in numerous countries worldwide, in various regions this decrease is lacking or rather limited and slow [2, 4, 11]. Moreover, given that

that population growth rates are high in countries where FGC is concentrated, the number of girls at risk each year could rise from 3.6 million to 4.1 million by 2050, even if current rates of decline remain constant [2]. Thus, the number of girls at risk of being cut or who are cut remains too high [2, 4, 11].

Girls and women are therefore at risk of FGC worldwide, although the risk can vary over and between countries depending on how intensely FGC is practised where the girl lives or how strong the social norms are within the community of which she is a part. Moreover, the potential risk girls and women face might vary over time.

2.2. State of the art: empirical evidence on social correlates of changes in FGC prevalence

2.2.1. The important role of women's social position in the (dis)continuation of FGC

The most commonly cited reasons for continuing the practice of FGC are tradition, culture, religion and FGC's association with marriage [22-24]. FGC is often accepted as a normal part of being a grown woman, it is what symbolizes girls' coming of age and confirms women's social identity as a full community member and thus her social status – making a woman marriageable [16, 25, 26]. FGC is often motivated by beliefs about what is considered appropriate sexual behaviour and therefore described as a means to preserve virginity and marital faithfulness and prevent promiscuity and prostitution [23, 27]. The idea of FGC as a religious requirement is based on the common religious values of female virginity, premarital abstinence and chastity [28-30]. Nevertheless, despite FGC being associated with religion, previous research shows that FGC predates monotheistic religion and that FGC varies both within and across religious institutions [23].

Moreover, the practice of FGC is associated with cultural ideals of femininity and modesty, which include the notion that girls are 'clean' and 'beautiful' after removal of body parts that are considered 'male' or 'unclean' [16]. Support of FGC is often based on beliefs about what it means to be a 'good woman' and a 'desirable partner', or on gender expectations and appropriateness [29]. FGC is thus a means for a woman to express her gender in the light of normative expectations concerning femininity and female sexuality [31-33].

The choice to cut or not cut a daughter is dependent on gender norms about FGC but also on gender inequality and extra-familial opportunities for women that exist alongside these norms [34]. Structural inequality in extra-familial opportunities for women – which may arise in

social, economic and political spaces – result in structural barriers that limit women’s access to resources and identities outside the family, such as access to education and other activities, and institutions involving the production, distribution and consumption of goods and services [34-37]. Gender inequality relates to the extent to which women and men are unequal in their access to the scarce and valued resources of their society [38]. It also implies inequality in the ability to define one’s goals and act upon them [39]. Together, resources and agency constitute what Sen [40] refers to as ‘capabilities’: the potential of men and women to live the lives they want. When the failure to achieve one’s goals reflects a deep-seated constraint on the ability to choose, it can be taken as a manifestation of disempowerment, lack of control and powerlessness.

Unequal barriers to opportunities cements women’s dependence on predominantly male family members and women’s conformity to practices that uphold family systems. Whether or not women see extra-familial opportunities, and thus alternative ways to attain social inclusion without being cut, is linked to the continuance of the practice [25, 34, 41]. Previous research has indeed found that mothers with a higher social position are less likely to have their daughters cut [25, 29, 42]. In addition to structural opportunities, women’s social position determines their ability to make certain choices, their preferences and their capacity to decide between alternatives [32, 39]. It determines which material, human and social resources are available to women and helps explain differences in the choices that they make concerning FGC.

Previous research consistently shows a significant negative relation between women’s social position and the likelihood of girls to be cut. The most common finding is that educated and/or employed women are less likely to be cut and to cut their daughters [25, 29, 43-46]. Evidence has also been found for an association between FGC and urban residence [25, 44-49], household wealth [50], media exposure [45, 47, 48, 51], access to community meetings where FGC is discussed [47], being aware of the negative health consequences [47], community levels of education [45, 46] and economic development [43]. A more detailed assessment of women’s social position showed that women who participated in household decisions were less likely to support FGC [46, 52]. An association between FGC practice and being married [48], age at marriage [49], and circumcision status of the mother [25, 48] also indicates the importance of women’s status.

2.2.2. FGC as a multilevel phenomenon: the influence of FGC as a social norm

More recent research has started to emphasize the importance of a multilevel framework when examining changes in the practice of FGC, suggesting that it is not merely determined by individual decisions. FGC is a strongly embedded cultural practices and often acts as a social norm. Thus, it should be understood as a collective practice in a referent group that is motivated by two social expectations: the empirical expectation that others practise the behaviour, thus the perception of a collective practice; and the normative expectation that others think the practice should be maintained, or the community's social beliefs [35, 53, 54]. Social norms are maintained through social influence and/or the expectation that compliance will be rewarded with social acceptance, and thus is a marker of social belonging [2, 54]. Sustaining the norm is a way to uphold these social ties as distinct and valued [30, 35], while non-compliance to social norms will be punished by social rejection [54].

In communities where the pressure to cut is strong, noncompliance to social norms is punished by social rejection [54]. Girls and women risk social exclusion and stigma if they refuse to be cut [22]. Moreover, women's FGC status not only affects their own social status but the status of their entire family. Mothers, who typically bear the primary responsibility for making decisions about their daughter's cut [55, 56], play an important role in maintaining the practice, as their social position is linked to their roles as wives and mothers [11]. By safeguarding their daughters' social position and marriageability through FGC, they also secure their own social position [26] and the status of their family as a whole. Uncut girls and women, and their families, thus risk social exclusion, stigmatization, and loss of status [25, 57].

Marriage and the social and sexual control of women are often a means to practise patriarchal control and ensure family honour [29, 58-62]. This explains why many women in patriarchal communities support and perpetuate a practice that is violent to women. In strongly gender-stratified societies, women derive their social status and economic security through their roles as wives, mothers, mothers-in-law, and grandmothers, while men largely derive their social status through activities in the social sphere [29, 58, 63]. Scrutiny of women's adherence to social expectations creates powerful incentives for women to conform. In this way, belief systems about maleness and femaleness are encoded in the social structure, a complex structure of constraints and opportunities for men and women about what they can have, what they can know, and whom they can become [64]. Consequently, women may act 'voluntarily' in ways that confirm and reinforce different norms and stereotypes of women and gender stratification –

such as the requirement of women to be cut – as a consequence of being socialized into these cultural definitions [65].

Studies have found that positive attitudes towards the continuation and prevalence of FGC have declined [44]. However, prominent studies have shown a stronger impact of female empowerment on attitudes rather than a reduction in the actual practice of FGC. This indicates that even if many individuals are opposed to FGC, the practice may persist because the punishment for isolated non-conformers to the tradition is substantial: exclusion from the marriage market, expulsion from the community, and loss of opportunity to have children [45, 66, 67]. This finding can be understood in the light of convention theory. Convention theory is a relevant theory for social sciences since much of the social order within societies can be explained in terms of social conventions. A social convention can be roughly described as a customary, arbitrary, and self-enforcing rule of behaviour that is generally followed and expected to be followed in a group or in a society at large; even if members of that group or society did not explicitly agree to do so [68]. Social conventions, once established, often reproduce themselves. Lewis states that mutual expectations are precedent: if the members of the group or society at large have a shared acquaintance with instances of successful coordination in a class of similar situations in the past, they will project this pattern into the future [68]. Mackie was the first to discuss the maintaining stance of the practice of FGC using the social convention theory. In relation to FGC, convention theory posits that unless women know that others will also refuse to cut their own daughters, parents will feel they have to conform to social convention regarding FGC in order to ensure their daughters' social position [11, 54, 56].

When studying the continuation of FGC and the mother's decision to cut or not to cut a daughter, it is important to keep in mind all the factors involved at both the individual and community levels. Continuation or abandonment of FGC entails an interaction between personal beliefs and community characteristics [35]. In communities where normative expectations are strongly enforced, personal beliefs will have little influence on behaviour. The extent to which maternal opposition decreases the likelihood of a daughter being cut is greater in communities where opposition to FGC generally and other opportunities for women, are greater [35]. As normative expectations weaken, a 'tipping point' will be reached, where personal beliefs are the actual drivers of actual behaviour [35, 56].

2.2.3. Increasing legislation on FGC and its detachment from practising communities

Over the past couple of decades, the fight for the abandonment of FGC has gained momentum worldwide. FGC has been increasingly recognized as harmful to both the physical and psychological health of girls and women and a violation of human rights [2]. This human rights framework has served as a foundation for FGC being targeted by the international community [69]. The United Nations (UN) first criticized FGC in 1964, and a wave of interest among Western feminists in the 1970s eventually encouraged the international community to prioritize the eradication of FGC [69].

Following the International Conference on Population and Development in Cairo in 1994, the discourse surrounding FGC shifted from a health framework to a human and women's rights discourse [23, 70, 71]. In 2012, the UN General Assembly adopted an unprecedented resolution, '*intensifying global efforts for the elimination of female genital mutilations*', calling for global efforts to end FGC [72], and in 2015, the phrase, 'elimination of all harmful practices, including FGC, by 2030', was included in the Sustainable Development Goals (SDG 5.3) [23, 73]. Both the resolution and the SDG framework signify the political will of the international community to work to accelerate action in the fight for FGC abandonment on all the continents of the world [21].

Pressure from the international community has encouraged or even compelled national governments in FGC practising countries to take action to eradicate the practice [69]. One example of this enforcement is legislation passed in the US in 1996, making US support for loans from international financial institutions dependent on foreign governments carrying out educational campaigns on the practice [69, 74]. Today, at the national level, legal measures have been passed in most, but not all, practising countries and in various migration countries² [75-80], aiming to protect girls in migrant families who come from practising countries and are still at risk of FGC [2, 81]. Legislation and its implementation can have a preventive effect, as it creates an environment that enables resistance to the practice of FGC. The legal prohibition of

² Australia, Austria, Belgium, Benin, Bulgaria, Burkina Faso, Cameroon, Canada, Central African Republic, Côte d'Ivoire, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, DR Congo, Egypt, Eritrea, Estonia, Ethiopia, Finland, France, The Gambia, Georgia, Germany, Ghana, Greece, Guinea, Guinea Bissau, Hungary, Iceland, India, Iraq, Ireland, Italy, Kenya, Latvia, Lithuania, Luxembourg, Malta, Mauritania, Netherlands, New Zealand, Niger, Nigeria (not in all states), Norway, Oman, Poland, Portugal, Romania, Senegal, Slovakia, Slovenia, South Africa, South Sudan, Sudan, Spain, Sweden, Switzerland, Tanzania, Togo, Uganda, United Kingdom, United States (criminalized in 38/50 states), Zambia, Zimbabwe.

FGC offers legal protection for women, provides a legal platform for action, and discourages both practitioners and families from practising FGC for fear of prosecution [82-84]. However, there are several challenges that arise with legislative measures; for example, the practice may go underground and be underreported, or it may discourage people with immediate health complications after FGC from seeking medical care [82, 84, 85].

While anti-FGC laws and prevailing anti-FGC norms are dominant at both national and international levels, their diffusion and effectiveness in changing behaviour within practising communities are not straightforward [69]. Moreover, passing or enforcing legal measures has led to resistance and protest [82, 84]. Community support is crucial for legal bans to be implemented and adhered to. Previous research shows that when legal measures are preceded or combined with programmes at community level, such as education campaigns, advocacy, and sensitization of leaders, as well as adequate implementation, their effect can be expected to be higher [82, 84]. One important aspect required for a law prohibiting FGC to be successful is that it must be accompanied by a substantial body of public opinion that has been raised against the practice [81, 82, 86].

Interestingly, it is often the higher income countries where resistance arises, while the lower-income countries are often the first to 'sign on' to new international goals [69]. Development at the national level might provide a source of resistance to international norms and the ability to maintain local norms. While international activists mobilized to eradicate FGC might ask individuals to deviate from traditional norms, to be effective, this request must be supported at an individual and local level [69]. In addition to the possible contradictions in values between international/national policies and local norms and values, there are other possible barriers that might complicate the implementation of anti-FGC laws, such as the lack of a national action plan to implement the legislation, shortcomings in organized law enforcement – especially in rural areas with few police or other government authorities – conflicts of interest with police, local political and community leaders continuing to support the practice, and a lack of knowledge or understanding of the law within practising communities [80].

A more profound analyses of the legislation and its possible effect on medicalization is beyond the scope of the current Ph.D. dissertation. However, the reader should keep past and current political discourses on the medicalization of FGC in mind when interpreting the results that are presented in this doctoral thesis.

2.3. Medicalization of Female Genital Cutting (FGC)

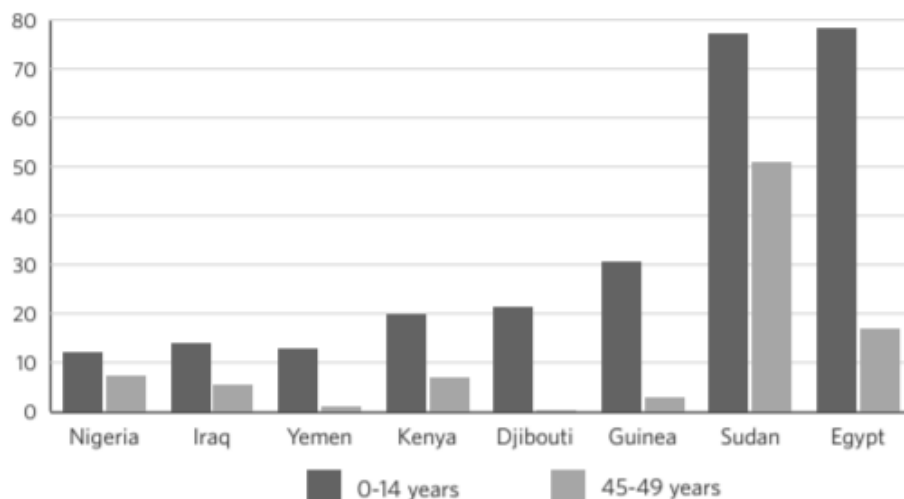
The medicalization of FGC, as defined by the WHO, refers to situations in which FGC is practised by any category of health-care provider, whether in a public or private clinic, at home or elsewhere. It includes all forms of FGC; thus, also nicking and pricking the clitoris and the procedure of (re-)infibulation at any point in time in a woman's life [3, 87-89]. Health professionals involved in performing medicalized FGC include physicians, assistant physicians, clinical officers, nurses, midwives, trained traditional birth attendants (TBAs), gynaecologists/obstetricians, plastic surgeons, and other personnel providing health care to the population, in both the private and public sectors. They may be undergoing medical training, working in the medical sector or be retired [3, 90].

The shift towards the medicalization of FGC is geographically concentrated [4]. There are eight countries with representative data on FGC and its medicalization, in which more than 10% of girls who underwent FGC were cut by health professionals: Djibouti, Egypt, Guinea, Iraq, Kenya, Nigeria, Sudan, and Yemen [91]. In these countries, an estimated 4.5 million girls, representing nearly one-third of all girls who have undergone FGC, were cut by health professionals [91]. Over 90% of all medicalized cuts are performed on girls living in only three countries: Egypt, Nigeria, and Sudan, and over half reside in Egypt alone [91]. Shell-Duncan's work on self-reported data on medicalization for girls and women aged 15-49 in 25 countries in Africa and the Middle East revealed that 26% of women with FGC – totalling nearly 15 million women – report having been cut by a medical professional [4]. Medicalization percentages may also vary within countries, especially by ethnicity; for example, in Kenya, medicalization takes place in the Kisii community, while there are only low percentages of medicalization in the Maasai community, despite both communities having a high prevalence of FGC (KDHS 2014).

Looking at the countries with over 10% medicalization and for which a comparison between girls aged 0-14 and women aged 45-49 is possible, there is an increase in medicalization percentages for seven out of eight countries.³ This trend is sharpest in Egypt, where percentages have more than doubled between one generation of women and daughters (38% and 82%, respectively).

³ Djibouti, Egypt, Guinea, Iraq, Kenya, Nigeria, Sudan and Yemen. Comparison was not possible in Indonesia as data was merely collected on FGC and its medicalization for girls aged 0-14 years old.

Figure 3. Percentage of girls aged 0 to 14 years and women aged 45 to 49 years who underwent FGC by a health professional



Retrieved from: UNFPA, Brief on the medicalization of female genital mutilation. 2018

Data source: UNICEF global databases, 2018, based on MICS, DHS and other nationally representative surveys, 2006-2015

2.3.1. The classic sociological approach to medicalization trends

Medical sociology is a subdiscipline of sociology that studies the social causes and consequences of health and illness [92]. Major areas of investigation include the social aspects of health and disease, the social behavior of health care workers and the people who utilize their services, the social functions of health organizations and institutions, the social patterns of health services, the relationship of health care delivery systems to other social systems, and health policy. What makes medical sociology important is the significant role social factors play in determining the health of individuals, groups, and the larger society. Social conditions and situations not only cause illness, but they also help prevent it [92].

Within the discipline of Medical Sociology, the term *medicalization*, entered the sociology literature in the 1970s in the works of Michel Foucault, Irving Zola, Peter Conrad, Thomas Szasz, and Ivan Illich, among others. Medicalization refers to “a process by which nonmedical problems become defined and/or treated as medical problems, usually in terms of illnesses or disorders” [93]. Research on medicalization not only describes which human conditions became medicalized (early works mainly focussed on mental health and death), but also which drivers of

these medicalization processes could be identified, which were changeable over time and specific to the conditions medicalized and the context in which this occurs [93]. The early writers on medicalization perceived it as a form of social control in which medical authority expanded into domains of everyday existence. They did not believe medicalization to be a new phenomenon, but rather argued that medical authorities had always been concerned with social behavior and traditionally functioned as agents of social control [94, 95]. However, over the last decades, medicalization has increasingly extended in scope and meaning, partially due to new drivers behind this medicalization process.

To the extent, Conrad [93] and Clarke [96] examined changes within medicalization processes over the last decades in the United States. They defined two generations of medicalization. The first generation of medicalization – which occurred with the start of modern medicine – was characterized by medical imperialism: the medical professionals were the main drivers of the medicalization processes, deciding who was sick and who was not, while the patient had a rather passive role [93, 97]. In addition to this medical imperialism, social movements, interest groups, and directed organizational or inter- or intra-professional activities might have specifically aimed to promulgate medicalization [93]. The dominant medical care model that was subsequently introduced, due to the increase in medical expertise, led to the professionalization of medicine and the institutionalization of the sick [97]. Medicalization, and medicine in general, had a moral dimension that defined the desirable and the undesirable, with illness being an undesirable deviance from social norms concerning healthy and appropriate behaviour [97]. First-generation medicine can be seen as an institution of social control in its provision of social stability, as the sick cannot perform their normal roles in society and therefore threaten that stability [98-100].

Since the last two decades of the twentieth century, a second generation of medicalization emerged, which shifted its focus from controlling and curing of diseases (e.g., surgery to treat broken arm), to a focus on transformation, optimization, and enhancement of human health (e.g., breast enlargement), as well as to the prevention of diseases (e.g., preventive mastectomy) [93, 96, 97, 101, 102]. This resulted in health becoming an ongoing project, being healthy as a personal achievement and a moral obligation, and leading to less tolerance for deviance [96].

The engines of medicalization changed with the emergence of this second generation. Doctors still remained gatekeepers for medical treatment, but their role became more

subordinate in the expansion or contraction of medicalization. Medicalization became increasingly more driven by commercial and market interests than by professional claimsmakers. At the same time, biotechnology (especially the pharmaceutical industry and genetics), managed care, and consumers engendered an important shift in the engines that drive medicalization. While these shifting engines of medicalization are discussed in detail elsewhere [93], the increasingly powerful role of patients as consumers is of particular importance to this thesis. As health care became more commodified and subject to market forces, medical care also became more like other products and services. Patients transformed from passive recipients of medical care, to active and vocal consumers who choose their own health insurance plans, purchase health care in the marketplace, and select institutions of care.

During the second generation of medicalization, patients are increasingly shaping the scope and demand for medical interventions [93, 96]. *“Cosmetic surgery is the exemplar of consumers in medicine. Procedures from tummy tucks to liposuction to nose jobs to breast augmentation have become big medical business. The body has become a project, from “extreme makeover” to minor touch ups, and medicine has become the vehicle for improvement. In a sense, the whole body has become medicalized, piece by piece. (Conrad, p.8) [93]”* The active role of patient-consumers is fuelled by the democratization of access to medical knowledge; although, it should be acknowledged that the distinction between expert and lay knowledge often remains blurred. The quality of the information available to the public may be difficult to judge, with health information omnipresent through various media channels [96]. Nonetheless, in contrast to the role of patients during the first generation of medicalization, they became one of the major players in processes of medicalization through their role as consumers of health care.

Empirical research that describes these medicalization processes is mainly restricted to the United States and other high-income regions. However, while it is assumed that medicalization will increase and expand due to globalization, empirical research on medicalization processes in middle and low-income countries is limited in scope [93, 96]. As a result, knowledge on whether and how medicalization processes occur in these contexts of lacking.

With the current dissertation, we describe the medicalization process of FGC in two lower-middle-income countries, Kenya and Egypt. In line with the second generation of medicalization as described by Conrad [93] and Clarke [96], the medicalization of FGC does not occur to treat a disease, but rather to “optimize” a healthy girl’s body. Through the medical intervention of FGC,

identities linked with the requirement to be cut, such as being an adult and a marriageable woman, are guaranteed. Moreover, medicalized FGC is an intervention that aims to transform the body so as to conform to social norms relating to FGC, and it might be seen by practising communities as a form of optimization of the body achieved in a healthy and safe way. The empirical research in this dissertation aims to identify the social correlates of this medicalization process and the meaning and motivation of mothers as major players in this medicalization process. When in the upcoming sections, I refer to sociological perspective of medicalization processes I in fact refer to the identified engines of medicalization by Conrad and Clarke within high-income countries.

2.3.2. Discussing the drivers of medicalization applicable to the practice of FGC

In what follows, I will attempt to provide an overview of the current drivers of the medicalization of FGC will be discussed, and the parallels with previous sociological research will be indicated. I will discuss the drivers at various societal levels, from international to familial and individual levels, as both FGC and medicalization are practices that are typically intertwined with drivers at various societal levels, coming from both the top-down and the bottom up.

2.3.2.1. The international community: the health approach as an unintentional driver of medicalization

As discussed above (2.2.3.), over the last four decades, the international community has stimulated activities, campaigns, and policies aiming to accelerate the abandonment of FGC worldwide. This engagement was prompted by the recognition of FGC as a practice that was harmful to both the physical and psychological health of girls and women and a violation of their human rights [2]. The most common approach used in the fight for FGC abandonment was the health approach, which aimed to inform and educate people about the adverse health consequences associated with FGC. This was based on the assumption that, if people became aware of the health risks, they would be motivated to abandon the practice [6, 89]. However, a strong increase in medicalization, combined with a limited and slow decrease in prevalence, led to speculation that the health approach had merely motivated a shift towards medicalization rather than FGC abandonment [4, 103, 104]. Thus, the health approach that was widely used may have motivated families to turn to health professionals to have FGC performed as a result

of democratizing medical knowledge about the health risks of FGC [89]. Moreover, boys were increasingly being circumcised in the hospital to avoid health complications which gave cue for girls to be taken to the hospital as well [6, 89]. This driver is in line with medicalization literature showing that the demand for medicalization by potential patients, or rather consumers, is often driven by increased knowledge to health and medical knowledge [96]. Finally, health professionals might also have been encouraged by the health approach to comply with their patients' requests to perform FGC [89].

Since the early 1990s, the framework for viewing the practice has shifted, from a health framework – in which the main debates were centred around the question of whether, or how, health risks might be minimized – to a human rights framework [71, 89]. Defining FGC as a human rights violation underscores concerns surrounding the practice, which are not limited to minimizing health risks, but rather extend to broader issues of child protection and well-being, consent, bodily integrity, and discrimination against women [89]. In line with the sociological perspective of medicalization processes, it is possible to state that the shift towards the human rights framework aims to demedicalize the practice, framing it as a moral issue rather than a health or medical issue.

Today, the medicalization of FGC is strongly and explicitly condemned by the majority of parties involved in the fight to eradicate it. The most recent guidelines issued by WHO on the management of health complications from FGC states: 'stopping medicalization of FGC is an essential component of holistic, human-rights based approach towards the elimination of the practice' [7]. In 2010, a global strategy was developed specifically to stop health-care providers from performing FGC [3]. In 2012, the UN General Assembly adopted a Resolution [A/RES/67/149] to ban female genital mutilation worldwide, 'whether committed within or outside a medical institution' [89]. Moreover, numerous medical associations⁴ have condemned the medicalization of FGC [89]. Policies around the globe are aligned with an opposition to the medicalization of FGC [3, 89]. Whether it is traditionally performed or medicalized, FGC is now recognized internationally as a violation of girls' and women's rights, and as an expression of gendered violence [3]. Framing FGC as a violation of human rights is the base for a zero-tolerance approach which opposes all forms of FGC, including medicalized FGC [71, 89].

⁴ E.g. the World Medical Association, the American College of Obstetricians and Gynecologists, the American Medical Association, the International Federation of Gynecology and Obstetrics.

One of the central arguments of the opposition to the medicalization of FGC formulated in policy recommendations at various societal levels is the assumption that the involvement of health-care providers in the performance of FGC will counteract efforts to eliminate it and impede progress towards its abandonment [3, 6]. However, there is no empirical evidence to substantiate the claim that medicalization actually counteracts decreasing FGC prevalence. Moreover, this assumption has been challenged by several previous studies that have demonstrated that medicalization and declining FGC prevalence percentages do occur in parallel [4, 105-107].

2.3.2.2. Legislation and policies at national level having a possible impact on the occurrence of medicalization

In specific cases, such as in Indonesia or in Egypt, medicalized cutting was also driven by national policies restricting traditional practitioners but allowing health professionals to perform FGC – thus pro medicalization [89]. In these cases, a harm-reduction approach was applied as a public health strategy aiming to minimize the health hazards associated with risky behaviour by encouraging the safest alternative, including, but not limited to, full abandonment of the practice. This promoted the alternative that bears the lowest risk of harm to the health of the girl/woman, while still being culturally or individually acceptable [6, 89, 108]. In specific cases, policies regulating the way in which FGC should be carried out were described as a ‘temporary transitional measure’ for those who were not ready to give up the practice [89, 109-111]. Both Egypt and Indonesia have had a period during which FGC was permitted by law if performed by a health professional [6, 89]. In Indonesia, in 2011, the Minister of Health issued a directive for health professionals to perform scraping on girls, which was repealed in 2013, reiterating support for a 2006 law banning FGC [89, 112]. In Egypt, in 1994, the Minister of Health ordered state hospitals to set aside one day a week to perform FGC by health professionals. While this policy changed about a year later because of sharp criticism, a loophole allowing ‘medically necessary FGC’ was not closed until 2007 [44, 50, 89, 113]. That medicalization percentages in both contexts are among the highest in the world might be the result of having this history of government consent to FGC for a certain period [6, 89]. In line with the medicalization process as described by Conrad and Clarke [93, 96], who point to the importance of managed care, we see that governments decision about what to medicalize or not to medicalize might have a significant effect on the medicalization of a practice.

In at least six countries (Burkina Faso, Cote D'Ivoire, Egypt, Eritrea, Mauritania, and Senegal) where FGC is banned by law or constitutional decree, national policies specify the possibility of losing medical licences, and an elevated penalty is specified in the criminal code for health professionals that perform FGC [89, 114]. Also, at the national level, medical associations have condemned the medicalization of FGC (e.g., in Djibouti, Egypt, Somalia, Sudan, and Yemen) [89]. Looking at FGC percentages in countries where health professionals are specifically discouraged from conducting FGC by national policies, it is apparent that medicalization percentages are low: Burkina Faso (0.2%), Cote D'Ivoire (0.3%), Eritrea (0.6%), Mauritania (2.0%) and Senegal (0.0%).⁵ Egypt's medicalization percentages are much higher (37.9%) (DHS 2014) – which might be explained by its turbulent history of FGC policy [4]. However, the results of these national policies are ambiguous, as medicalization percentages vary substantially between countries where medicalization is strictly and explicitly forbidden at the national level.

2.3.2.3. Health professionals as providers of FGC within a market system and/or as a member of a practising community

Research shows that the first major reason why health professionals perform FGC is the opportunity for financial gain [89, 91, 115]. Medicalized FGC is often mentioned as a complementary source of income for health professionals and as an incentive to practise medicalized FGC [3, 10, 115]. If health professionals favour FGC, or even advocate it, medicalized FGC becomes commodified – which might run counter to the fight for its abandonment. As El-Gibaly has pointed out, in the Egyptian context, health professionals refer to the practice as a form of cosmetic surgery – which may be done in an attempt to avoid the law against FGC, but also as a way of marketing the procedure to the client [116]. Here we see a clear parallel with increasing market mechanism driving second generation medicalization [93, 96].

Second, social pressure and a sense of duty to the community, or religious requests and conforming to cultural traditions, may also motivate health professionals to perform FGC [10, 87, 115, 117]. Most health professionals who perform FGC are members of the practising communities they serve and thus may support the continuation of FGC. They may be willing to

⁵ Databases used per country: Burkina Faso (MICD/DHS 2010), Cote D'Ivoire (DHS 2012) Eritrea (DHS 2002), Mauritania (MICS 2011), Senegal (DHS 2015). For more information on calculation see report by B. Shell-Duncan, C. Njue & Z. Moore (2017).

perform FGC, as they have the same motives as the people requesting it, and they are therefore prepared to honour the values and wishes of their patients [89, 91, 115, 116, 118, 119]. Moreover, by performing FGC they conform to the social expectations of the community to which they belong, despite the practice being against the imperative medical ethical principle to 'do no harm' [3]. They might support the idea that medicalized FGC is an optimization of women's body [93, 96].

The third main reason given by health professionals to perform FGC is based on the 'harm-reduction logic': the claim that performing medical FGC is less harmful to girls and women than the procedure being performed by a traditional practitioner [115]. In a study of future health professionals, it was found that they believed that the use of anaesthetic would reduce the pain for girls [120] and that carrying out the procedure under hygienic conditions would reduce the harm [120, 121].

An important note to make when discussing medicalization as a harm-reduction strategy is that it is merely an assumption that health professionals perform the practice in a less harmful manner – using sterile equipment in hygienic conditions – and that they cut less. As stated above, the narrow definition of medicalized FGC merely refers to the practitioner being a health professional. While it is often assumed that health professionals thus improve the conditions in which FGC takes place (e.g., hygienic environment, preventive medical measures, use of sterile instruments, skill of the cutter) and reduce the amount of cutting [6], this is not a strict condition of medicalized FGC. Moreover, there is evidence to the contrary. Research has shown that medicalized FGC does not reduce the long-term negative health consequences of FGC and has no health benefit or medical justification [7]. Yount [122] even points out that for FGC type I or II, there is no difference in risk of infertility or birth complications when FGC is performed by a health professional compared to a traditional practitioner. As well, there is evidence that cutting under anaesthesia may be more extensive than reported [90]. Other research has shown that many health-care providers have poor knowledge about the health risks associated with FGC [115, 120]. The health professionals are themselves not trained to perform FGC unlike male circumcision [116].

Some research suggests that health professionals perform less severe forms of cutting [4]. However, health professionals are not bound to perform a certain type of FGC. In Indonesia, for example, there is evidence of midwives returning to more invasive forms of FGC [90, 123].

Moreover, there is also anecdotal evidence of FGC being performed in private homes in non-medical settings [124]. While more research is needed on the health consequences of medicalized FGC, both health professionals and practising communities (see below) may nonetheless perceive medicalized FGC as less harmful. Health professionals might therefore be motivated to perform the practice, while communities might be encouraged to turn to health professionals to have the procedure performed.

2.3.2.4. Drivers of medicalization within the practising communities: harm-reduction or social norm?

Second-generation medicalization recognizes the important role of consumers as drivers of medicalization [93, 96, 97]. In line with this, previous research has shown that FGC practising communities are important drivers of medicalized FGC, and thus medicalization might be consumer driven [93, 96]. The most cited reason for turning to a health professional to perform FGC is the belief that medicalized FGC reduces adverse health outcomes compared to the traditional cut [6, 89, 119, 125]. The perception of a lower risk of health complications as a consequence of medicalized FGC is based on the belief that health professionals can be trusted, are more skilled, work in more hygienic conditions and use cleaner equipment and cut less [3, 89].

This reasoning is possibly the result of the fact that FGC has been addressed as a health issue for years, leading to a growing awareness of the health consequences of FGC (see 2.3.2.1.). With this increased knowledge of the health risks – and thus democratization of health related knowledge –, medicalization might be seen as a way to minimize the risks while conforming to social expectations. Thus, the factors that motivate the continuance of the practice of FGC overlap with factors that support medicalization, such as adherence to community customs and traditions, the social construction of girls' well-being, and physical beauty [116, 119]. In some regions, medicalized cutting is offered as part of routine neonatal care options [89]. This would suggest that the transition to medicalization may be an unintended consequence of improved health-seeking behaviours and safe birthing messages [119]. Medicalization thus presumably emerged from the bottom up ; and thus consumer driven [3, 93, 96].

As described above, women's social position is a relevant factor in women choosing to cut or not to cut their daughter. Based on gender stratification and the sociological perspective on

medicalization, it can be expected that women's social position might also influence the choice of medicalized FGC. Medicalization is often stratified, shaping, and maintaining inequalities [93, 96]. Unequal access to medical institutions and resources might be the result of unequal financial capability, and therefore trust and confidence in finding one's way within the health system [126]. Moreover, women with higher levels of education – through schooling and exposure to media – are more likely to have incorporated ideas about health and individual rights that have become prominent in high-income countries where medicalization processes have arisen and are now widespread [82].

These factors might motivate women to opt for medicalized FGC to reduce health risks [6]. Moreover, the economic ability of mothers to circumcise their daughters in a medical context may serve as a status symbol, as it can be perceived as 'more modern' [121, 127]. The preference for medicalized procedures among high social status groups has been found in other health-related domains. An interesting parallel is found in Brazil, where C-sections changed from being a lifesaving medical procedure used in a risk situation to a medical intervention that is used to conform to cultural values regarding the female body and sexuality. It is now perceived as safe, painless, modern, and the ideal form of birth for every pregnant woman [128]. Thus, in relation to FGC, being able to have it performed by a highly positioned health professional would allow women to adhere to middle-class gendered norms concerning femininity [129].

Previous research indeed points to an association between the socioeconomic status of mothers and the medicalization of FGC [25, 29, 44, 55, 130]. One gap in this literature is that it primarily looks at women's socioeconomic status and does not take into account women's social position within their household. Other research has demonstrated the importance and influence of patriarchal systems on the practice of FGC [25, 35, 39, 131]. Women who have decision-making power in their household and who are less tolerant of gender violence have been shown to dedicate a greater proportion of resources to child-centred expenditures [132-135]. Based on these findings, it might be argued that such women are able to negotiate medicalization as a harm-reduction strategy and spend financial resources on medicalized FGC, which is said to be typically more expensive than traditional FGC [82, 121].

However, the choice about a daughter's cut is not merely individual but also strongly driven by social norms [14]. Whether a woman acts in line with her attitudes towards the practice (e.g., whether she would abandon the practice because she does not support its continuance) may be

influenced by her social position; but also by the social norms regarding FGC within her community [25]. The harm-reduction logic described above assumes that the social pressure to cut remains high: when abandonment is not an option, medicalization is seen as a way to conform to social norms while reducing harm [6]. Here, medicalization can be understood as a compromise between complete abandonment of the practice and a cut by a traditional circumciser, which is associated with more health hazards than a medicalized cut. Women may thus opt for a medicalized version of FGC to retain the social benefits related to the practice, while simultaneously reducing some of its health hazards [6]. In line with parallel examples within the medicalization literature (e.g., synthetic oestrogen to reduce female height – see article 3 [136]), here decisions are made by parents – primarily the mother [137] – based on adult perceptions about the social difficulties that their children might face at an older age, with children having little agency in the decision-making process [138]. The medicalization of FGC can, in this sense, be interpreted as a kind of medicalization of ideal mothering and a harm-reduction strategy, as well as a ‘quick fix’ for socially and culturally situated problems [139].

While previous research has examined the association between women’s social position and medicalization at the individual level, it is important to include social norms in these analyses as they might be additional drivers of medicalization of FGC. These social norms concerning FGC are especially important in this respect, as social position is the result of gender norms as well as a possible change maker. Moreover, in line with the sociological perspective of medicalization, it could be argued that medicalization might act as a social norm itself. When opting for medicalization as a harm-reduction strategy, it might also function as a way to conform to social norms, ‘optimizing’ the body to adhere to social/gender norms [140, 141]. When medicalization becomes normalized, it becomes incorporated into shared beliefs about how FGC should be performed. In a culture of increasingly market-driven medicine, consumers, biotechnological corporations, and medical services interact in complex ways that affect social norms and change behaviours and interventions. The relationship between normative changes and medicalization thus runs in both directions [93]. Nevertheless, the hypothesis of the medicalization of FGC acting as a social norm itself has not yet been empirically examined.

If medicalized FGC is seen as the norm, it might function as a driver of FGC itself. Medicalization might lead to the perception that health professionals eliminate the health risk of FGC and thus that it is less harmful or even harmless. It has been argued that the involvement of health professionals may thus legitimize the practice, as they have a certain status in

communities and are often seen as role models [3]. This reasoning lies behind anti-medicalization policies, and it assumes that medicalization counteracts the eradication of FGC, insofar as it reduces the incentive to abandon FGC, and might even maintain the practice.

2.3.3. The complexity of various moral dilemmas concerning the medicalization of FGC

The issue of the medicalization of FGC is not simply resolvable through rational debate, as it is also surrounded by moral dilemmas and complex opinions. Firstly, health professionals, who are the central actors in the discussion, have a dual position. On the one hand, they are professionals bound by medical principles such as the Hippocratic oath, which says ‘do no harm’, and they are members of medical associations that openly condemn the medicalization of FGC [89]. On the other hand, they are members of practising communities, sharing their norms and values, which might differ from the principles they should maintain as health professionals [89, 91, 115, 116, 118, 119]. Moreover, as discussed above, the main driver of the shift towards medicalization at various societal levels (international, national, health professional, and within practising communities) is the logic of harm-reduction [6, 89, 119, 125].

However, even if medicalization might reduce the adverse health consequences of FGC, it creates a new moral dilemma in campaigns against the practice: could the practice, under certain circumstances, be carried out safely, or should all forms of the practice be condemned, no matter how minimal the dangers [5]? As it is assumed that medicalization counteracts FGC abandonment, this moral dilemma goes even further, as stated by Shell-Duncan: ‘to protect women’s health at the expense of legitimating a destructive practice, or to hasten the elimination of a dangerous practice while allowing women to die from preventable conditions’ [6]. When prohibition is linked to the concept of harm to physical health, the question arises whether procedures that do not produce anatomical changes and bear no long-term medical risk (mainly type VI procedures such as nicking, pricking, or scraping the clitoris or the clitoral hood) should be permitted ‘to avoid worse’ procedures [89, 142, 143].

Additionally, while the zero-tolerance principle might sound unambiguous, it brings with it the challenge of simultaneously addressing competing rights claims: how can the rights of the child, women’s rights to freedom from discrimination, freedom from torture, and the right to bodily integrity and health be reconciled with a right to cultural or religious freedom [89]? Alongside the underlying debate about how to distinguish acceptable risk from intolerable harm,

there is also a question about who has the right to make such distinctions. These issues require interpretation and are linked to legal, ethical, medical, and human rights claims about the limits of individual autonomy and tolerance of multiculturalism [89]. This dilemma is related to the unresolved question of consent: is women's ability to give meaningful consent to FGC limited by social pressure within their communities [89, 144, 145]? Moreover, do such pressures compound the restrictions on women's autonomy, possibly advancing an image of women as victims, who are incapable of reasoned decision-making regarding acceptable risk [89, 146, 147]? In fact, in the majority of cases, FGC is performed on non-consenting minors. Therefore, consent is tied to parental authority, with the assessment based on competing rights, as stated in the Convention on the Rights of the Child: a child's right to practice his/her culture and/or religion (Article 3) and the child's right to health (Article 30, p. 9) [89].

If human rights are considered to be primary, there would be zero-tolerance of the practice of FGC, and consent to FGC for oneself or one's daughter would not be seen as acceptable. Contradictions arise from banning FGC while upholding permissive standards regarding female genital cosmetic surgery, some of which bear a striking similarity to certain forms of FGC (labia reduction, clitoral reduction, and a form of labial adhesion known as 'the Barbie') [89, 145, 148, 149]. While this concern first arose in Europe and North America, it now extends to Egypt, where doctors refer to FGC as a 'cosmetic procedure', as mentioned above [116]. The WHO states that all unnecessary cutting of the external female genitalia should be banned, considering it to be a form of torture and a violation of the human right to bodily integrity. However, they only target 'non-Western' forms of female-only genital cutting, which has raised concerns about gender bias and cultural imperialism [13]. Earp and Johnsdotter (2020) have even argued that the zero-tolerance principle is unconstitutional, as it does not treat all people equally (e.g., males vs. females, Muslim vs. Jews, native vs. different ethnicities or birthplaces), and it is harmful as it might lead to racial profiling and stigmatization [13].

The following case is demonstrative of the intersectionality between tradition, culture, and human rights discussed above [90]. A Kenyan female doctor advocated at the High Court that the outlawing of FGC be overturned, based on the argument that FGC was part and parcel of African cultural practices before colonialism and, as such, should not be illegal. She stated that 'once you reach adulthood there is no reason why you should not make that decision' and that legalizing FGC would make it easier to seek the best medical care and would thus make the

practice safe⁶ [89, 150]. This case shows that FGC is based on cultural beliefs and is deeply embedded in social norms [90]. The question that emerges here is whether zero-tolerance platforms safeguard the human rights of girls, or staunchly defend a moral high ground at any cost [89]. If a human rights approach is implemented, it is important that it is supported by the local communities. This might enable communities to collectively explore and agree on better ways to respect cultural or religious values and lead to a sustainable large-scale abandonment of FGC as well as other harmful practices [3].

3. Research objectives

3.1. General research objective

As stated above the empirical research in this dissertation aims to identify the social correlates of the process of medicalization of FGC and the meaning and motivation of mothers as major players in this medicalization process. The overarching research questions is **“Why do mothers opt to medicalize their daughters’ cut and how does this decision relate to her social position within her community?”**. We conduct research to address this question in two contexts: Egypt and Kisii county Kenya (discussed in points 4.1.2. and 4.1.3.)

To address this question, we performed four empirical studies addressing four specific research questions. Before exploring why mothers’ opt to medicalize, the association between the shift towards medicalization and mothers’ choice to cut or not to cut their daughters was explored, addressing the question whether **increasing levels of medicalization, increase or decrease a girl’s risk to be cut?**

As women’s social position is proven to be strongly associated with mothers’ decision-making concerning her daughter’s cut (see point 2.2.1.), we wondered whether this relation also would hold for the medicalization of her daughter’s cut. As a result, we examined whether **the mothers’ social position significantly associates with her daughters’ likelihood to be cut medically.**

When the conducted research (see article 2, point 5.2.) showed that there was indeed a significant association between the mother’s social position and her choice to medicalize her daughter’s cut, the question was expanded by taking the normative context into account, as well

⁶ To date, no decisions have been made regarding this case at the High Court.

as whether this association differed with the group of mother's who opted not to cut their daughters at all: **how do social norms concerning FGC influence the association between the mother's social position and her decision concerning her daughter's cut and its possible medicalization?** (see article 3, point 5.3.).

The fourth specific research question was asked to mothers' themselves as the narrative approach within qualitative research is highly valued to explore why mothers opt to medicalize their daughter's cut. The question was: **what are the motivations behind a mother's choice to (not) medicalize her daughter's cut.**

Below, these four specific research objectives are discussed more extensively.

3.2. Specific research objectives

Aiming to answer the above formulated research questions, I formulated four specific research objectives.

Research Objective 1 (RO1): To explore the association between FGC medicalization trends and a girl's risk of being cut

Anti-medicalization policies staunchly argue that the shift towards the medicalization of FGC counteracts FGC abandonment. With the first research objective, I aim to examine this assumption at the individual level. I ask whether increasing medicalization percentages have a positive or negative effect on the likelihood of a daughter being cut. To address RO1, I will statistically examine the association between regional and time-varying trends of FGC medicalization and a mother's decision to cut or not cut her daughter.

Research Objective 2 (RO2): To explore the association between the mother's social position and her decision to medicalize her daughter's cut or not

In line with gender and medicalization theories – which were discussed above – I expect an association between women's social position and the choice to medicalize or not medicalize a daughter's cut. In order to empirically examine this relationship, I will statistically examine the association between women's social position – both within and outside the household – and a mother's decision to medicalize her daughter's cut or not.

Research Objective 3 (RO3): To explore how social norms concerning FGC influence the association between the mother's social position and her decision concerning her daughter's cut

Since FGC is a highly normative practice, it is important to include social norms when looking at the association between women's social position and the choice to medicalize a daughter's cut or not. To have a better understanding of the association between women's social position and the medicalization of their daughter's cut, I included a multilevel framework within the statistical analyses. I aimed to explore the association between the mother's social position at the individual level and social norms regarding FGC and medicalization with a mother's decision to medicalize her daughter's cut or not.

Research Objective 4 (RO4): To explore the motivations behind a mother's choice to medicalize her daughter's cut or not in a context where the shift towards medicalization is occurring

While looking quantitatively at the association between women's social position and the choice to medicalize their daughter's cut or not is relevant and interesting, I believe qualitative research is needed to explore what is behind this possible choice to medicalize a daughter's FGC. Developing such an understanding is impossible based on merely quantitative research, as I can only point to associations but cannot interpret them with certainty. In an additional qualitative study, I will explore mothers' motives for medicalizing FGC and how the shift towards medicalization might interact with other possible shifts in the practice of FGC, especially expectations concerning the continuation of FGC within the community.

4. Data & methodology

4.1. Study setting

The current dissertation focuses on two countries: Egypt and Kenya. A comparison of Egypt and Kenya is interesting due to their divergent FGC trends. While half of medicalized cuts worldwide are performed in Egypt, the general FGC prevalence percentages also remain high. Kenya, in contrast, is the only country where increases in medicalization percentages have occurred alongside a general decrease in FGC prevalence percentages [4].

4.1.1. Note on impact of COVID-19

Initially, the current dissertation was focused solely on the Egyptian context. While I undertook additional research on FGC during my Ph.D. trajectory,^{7,8,9} the aim was to tell the whole story in one country, looking in-depth at the demand side of FGC in the Egyptian context. Therefore, all of the purely quantitative studies were conducted on data in the Egyptian context. A fourth paper was planned to be a qualitative study in Assiut, Egypt. Collaborations were set up (with Omaima El-Gibaly at Assiut University), extra funding (incentive grant Mathieu et al.), and ethical permission were obtained, topic lists were prepared, planning undertaken, plane tickets purchased, and then COVID-19 hit. As COVID-19 reached both Egypt and Belgium I was forced to cancel the research visit.

In November 2019, I had travelled to Kenya to conduct qualitative research on mothers' decision-making concerning their daughters' cut and its possible medicalization. This research was initiated through the Academic Network for Sexual and Reproductive Health and Rights Policy (ANSER) of the International Centre for Reproductive Health at Ghent University, in collaboration with one of the ANSER partners in Kenya: Prof. Tammary Esho of the Technical University of Nairobi. When I was given the opportunity to conduct research in Kenya after receiving funding through the VLIR-UOS global minds programme, I strongly believed this would have added value, both for gaining an up-to-date understanding and for my development as a

⁷ Leye, E., Van Eekert, N., Shamu, S., Esho, T. & Barret, H. 'Debating medicalization of Female Genital Mutilation/Cutting (FGM/C): learning from (policy) experiences across countries'. *Reproductive Health*, 2019.

⁸ Van de Velde, S.M. and N. Van Eekert, 'Seeking a Deeper Understanding of the Underlying Causes of Sexual Pain in Women Who Have Undergone Female Genital Cutting'. *Archives of Sexual Behavior*, 2019.

⁹ De Schrijver, L. Van Baelen, L., Van Eekert, N. & Leye, E. 'Towards a better estimation of prevalence of female genital mutilation in the European Union: a situation analysis'. *Reproductive Health*, 2020. Doi: 10.1186/s12978-020-00947-2

qualitative researcher. I was eager to conduct this research out of interest and to gain trust and skills in conducting qualitative research.

While the Kenya study was intended to result in an ANSER paper to be produced in addition to my Ph.D. dissertation, COVID-19 forced us to include the paper in the current dissertation, since the qualitative research in Egypt was cancelled. I must note that I still regret missing the opportunity to conduct research in Egypt; however, I am proud to present my research in Kenya, as I believe it also contributes to the understanding of the current state of affairs and presents interesting and innovative research results.

4.1.2. Case study 1: Medicalization of FGC in Egypt

Egypt is a country in the northeast corner of Africa. It has 27 governorates, and the capital is Cairo. The population is estimated at 99.4 million (in 2018), with a growth rate of 2.38% (in 2018) and a median age of 23.8 (in 2017) [23, 153]. Life expectancy is 72.7 years, and the fertility rate is 3.53 [23]. Egypt is classified by the World Bank as a 'lower-middle-income country' (<https://data.worldbank.org/>).

In Egypt, mainly type 1 – clitoridectomy – and type II – excision - are practised [23, 87, 154, 155]. The procedure is usually performed in May and June, before the hottest part of the year [23], and 80% of cut girls and women have the procedure at or before puberty, between the ages of 5 and 14 [11, 23]. The age at which FGC occurs varies across regions: it seems to take place at a younger age in Upper Egypt, and in some rural villages, it may even be performed when girls are only five days old [23]. The age at which girls are cut appears to be decreasing [23]. Moreover, FGC is usually performed by a medical professional, in most regions by nurses or midwives, and in a highly medicalized environment such as a private clinic or hospital [89, 154]. This clinicalization is believed to be a consequence of Egypt having had a period of governmental consent for FGC when performed by a trained health professional (see below) [6, 11, 23, 70].

Focusing on the Egyptian context when researching the medicalization of FGC is particularly interesting for three reasons, which are discussed in detail below. Firstly, the prevalence of FGC remains high. Secondly, FGC in Egypt shows a strong trend towards medicalization. Thirdly, Egypt has an ambivalent history of policies on the medicalization of FGC

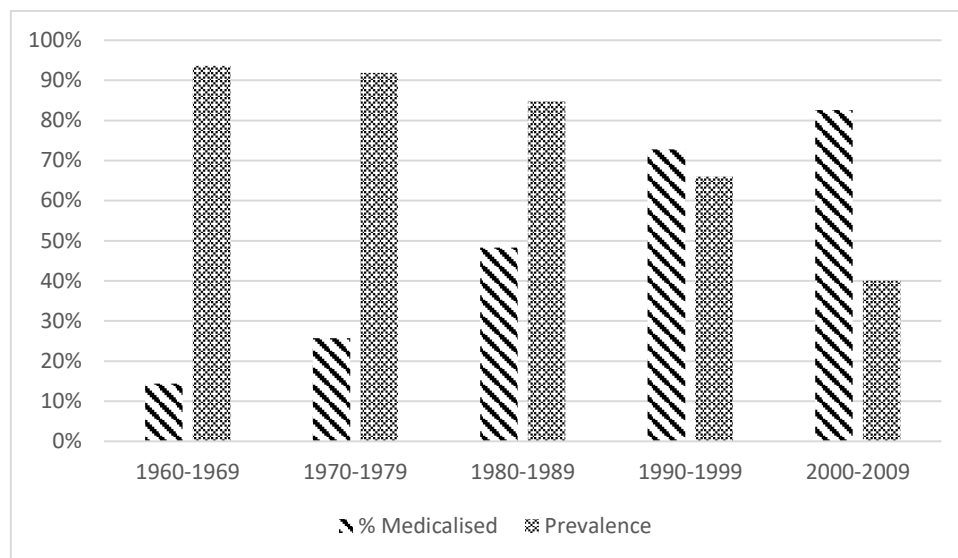
and is unique in Africa, having had a period (1994-2007) in which the government gave its consent to FGC if performed by health professionals [2-4].

4.1.2.1. Shifts in prevalence and medicalization percentages

Egypt has a very high prevalence of FGC, resulting in a high number of girls and women being cut or at risk of being cut. An estimated FGC prevalence of 87.2% among all women aged 15-49 in a population of nearly 100 million suggests that Egypt has the greatest number of women and girls who have experienced FGC of any country in the world [11, 23]. While Egypt remains a country with high FGC prevalence and incidence, progress in the fight for FGC abandonment can be observed. Although previous research comparing the entire reproductive population (girls and women aged 15-49 years old) over time has merely shown a small periodic change [4, 11], looking at how FGC prevalence has changed over birth cohorts presents a more optimistic view of this trend (Figure 4). Within the group of women born between 1960 and 1969, over 90% have undergone FGC, but this has decreased to 40% for the group of girls born between 2000 and 2009. The decreasing trend has occurred across all birth cohorts but seems to have accelerated especially within the two younger birth cohorts (1990-1999 and 2000-2009). The decrease in FGC prevalence has occurred in all Egyptian governorates; however, the pace of this trend varies largely between regions (EDHS 2005, 2008, 2014).

Egypt has the highest number of medicalized cuts performed on girls and women [4]. Looking at medicalization percentages over birth cohorts shows us a steep increasing trend (Figure 3). Within the birth cohort of women born between 1960 and 1969, 14% of cuts were performed by a health professional, but this percentage has risen continuously over birth cohorts, resulting in a medicalization percentage of 83% for the youngest birth cohort (born between 2000-2009). This increase in medicalization is found in all governorates in Egypt (EDHS 2005, 2008, 2014).

Figure 4. Prevalence and medicalization of FGC by the age of 14 by birth cohort, Egypt



(Author's calculations based on EDHS 2005, 2008 and 2014 [156])

4.1.2.2. The important role of religion regarding FGC

In Egypt, 99.7% (in 2019) of the population are Egyptians, with the remaining population consisting of minorities such as Berbers, Bedouins, Copts, and Nubians [153]. About 90% of the population in Egypt is Muslim, most of whom are Sunni [23, 153]. The remaining 10% are Christian, with the majority belonging to the Coptic Orthodox Church (92%), and the remainder to the Coptic Catholic or Coptic Evangelical communities [23]. There are also small groups of Shiite and Baha'i communities and a Jewish community [23]. In Egypt, FGC is practised by both Muslims and Coptic Christians, although the procedure has more support among the Muslim community [25, 29, 30, 50, 55].

The most commonly cited reason for continuing the practice of FGC in Egypt is that it is seen as a religious requirement [23]. Previous research has shown that Christians are more likely to express opposition to FGC than their Muslim counterparts and that opposition is spreading more rapidly among Christians than among Muslims [25]. Looking at the EDHS 2014, 39% of women at reproductive age were opposed to the practice of FGC, while for Muslims, this was 29.5% [157]. Moreover, Islam is the state religion in Egypt, and Islamic law is the main source of legislation, taking precedence over any international law or treaty [23]. For example, Egypt signed the Convention for the Elimination of All Forms of Discrimination Against Women with

reservations, stating that it would comply with the Convention insofar as it does not counter the Islamic Sharia law and its provisions, whereby women are accorded rights equivalent to those of their spouses so as to ensure a just balance between them [23, 158].

The belief that FGC is an Islamic religious requirement greatly contributes to the continuation of FGC in Egypt [23, 25, 29, 30, 50, 55, 158]. As approximately 90% of Egypt's population is Muslim, and Islam is the state religion, this would seem understandable [23]. While no religious texts state that FGC is required, and many Egyptian faith leaders have publicly opposed the practice, other faith leaders and Islamic communities state that FGC is required by Islam and interpret the Islamic Hadith as such [23]. FGC, which proactivists in Egypt refer to as female circumcision, is described as an act of Fitra¹⁰ applicable to both men and women [159]. Muslimahs for Circumcision state: 'Female Circumcision! No, it's not what you think it is! It is not Female Genital Mutilation, it does not curb women's sexual experience, it is not a cultural tradition. It is Islamic! It is healthy! It increases the experience of sex!' [159]. Type I FGC is referred to as 'Sunnah',¹¹ with prophet Muhammed prescribing that not too much be cut [159]. This interpretation is based on a Hadith¹², which recounts a discussion between prophet Muhammed and a woman (Um Habiba), who was known for being a practitioner of FGC. When Muhammed asked her if she was still practising FGC, she answered 'yes', adding: 'unless it is forbidden and you order me to stop doing it'. Muhammed replied: 'Yes, it is allowed. Come closer so I can teach you: if you cut, do not overdo it, because it brings more radiance to the face, and it is more pleasant for the husband' [160].

Yount describes how the decline in FGC prevalence in Egypt is hindered by Islamists who have engaged the State in public debates over the authentic role of women [30]. FGC is used as a gender symbol serving to reproduce religious boundaries and to signify religious difference, and this is reinforced by national legislation [30]. The popularization of an Islamic ideology identifying women as the gatekeepers of 'cultural authenticity' and 'traditional identity' has motivated the continuation of the practice [30].

¹⁰ The term Fitrah refers to inherent and natural qualities and ways of being human.

¹¹ The word Sunnah (Arabic: سنة) is an Arabic word meaning 'tradition' or 'way'. For Muslims, Sunnah means 'the way of the prophet'. The Sunnah is made up of the words and actions of Muhammed, the prophet of Islam. Muslims believe Muhammed's life is a good model for them to follow in their own lives.

¹² A saying about the life of the prophet.

While local interpretations of religion are used to rationalize continuation, alternative interpretations can be used to encourage abandonment of the practice [161]. Along with the Hadith mentioned above, which is cited to support the practice of FGC, others take a position against FGC and consider this Hadith weak in relation to the ‘Do no harm’ principle of Islam, or interpret the intention of the prophet differently [160]. In the book, *Female circumcision: Between the incorrect use of science and the misunderstood doctrine*, which was produced through a collaboration between the International Islamic Center for Population Studies and Research at Al-Azhar University (IICPSR) and UNICEF [23, 162], it is argued that FGC was never declared a religious duty (‘wagib’) or a practice recommended by the prophet (‘Sunnah’). Rather, it is argued that humans are created in the best possible form, and there is thus no need for ‘beautification’, and in addition, that Islam forbids inflicting harm or damaging someone’s health [23, 162].

4.1.2.3. Legislation on FGC in Egypt

The first movement against FGC was initiated after the International Conference on Population and Development in 1994, where sexual and reproductive health was acknowledged as a human right. Many of the international human rights conventions and treaties^{13,14} related to FGC have been signed and ratified by Egypt, making it a legal obligation for the Egyptian government to ensure that FGC is eradicated by putting certain provisions in place [23, 158].

In 1994, the Egyptian government gave its consent to health personnel to perform FGC, with the intention of reducing the health hazards related to the practice in a context where FGC was perceived as inevitable [11, 71]. This governmental consent to medicalized FGC only is unique on the African continent [11]. In 1995, after opposition from women’s rights groups and

¹³ Egypt has ratified or signed the following conventions and treaties: the International Covenant on Civil and Political Rights (signed 1976; ratified 1982); the International Covenant on Economic, Social and Cultural Rights (signed 1976; ratified 1982); the Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (signed 1987; ratified 1986); the Convention on the Rights of the Child (signed and ratified 1990); the African Charter on Human and Peoples’ Rights (signed 1981; ratified 1984); the African Charter on the Rights and Welfare of the Child (signed 1999; ratified 2001); the Convention for the Elimination of all Forms of Discrimination Against Women (signed 1980; ratified 1981 – with reservations, see 3.3.).

¹⁴ Egypt also did not ratify or sign the 2000 Optional Protocol to the CEDAW, by which ‘a State recognizes the competence of the Committee on the Elimination of Discrimination Against Women, the 2003 Protocol to the African Charter on Human and Peoples’ Rights on the Rights of Women in Africa’ (the Maputo Protocol).

health advocates, and the death of a girl in a hospital during an FGC procedure [70], this policy was revised. In 1996, a decree was passed against FGC being performed in either government hospitals or private clinics and, subsequently, the Nation Council for Childhood and Motherhood was launched. It went on to develop a national programme, known as ‘the FGC-Free Village Model 2003’ [23].

These developments meant that FGC was basically banned in all hospitals, except ‘when medically necessary’. However, the prerequisite of medical necessity functioned as a loophole until in 2007, when a ministerial decree was enforced that ‘prohibited nurses or physicians from performing “any cut or modification to any natural part of the female genital reproduction system, whether this occurred in public or private hospitals or other places”’ [6, 11, 23, 70]. This decree was enforced after the death of two girls due to FGC [23], and on June 2008, FGC was outlawed in Egypt [23]. However, several girls subsequently died while undergoing FGC, causing public concern that the laws were not sufficient and adequately enforced, failing to stop the practice [23].

The fight for the abandonment of FGC in Egypt went through a turbulent period in Egypt’s recent political history, including changes of government and the Arab Spring demonstrations (the Egyptian Revolution) in 2011 [23]. In 2014, a new constitution was introduced in Egypt, stating that the principles of Islamic Sharia were the main source of legislation (Article 2) [163]. For the first time, the Constitution stipulates that the State will protect women from all forms of violence and provide care to mothers, children, female heads of households, and elderly women [23, 163]. However, there have been very few prosecutions to date¹⁵ for practising FGC – despite increased penalties. The penalty given in a case concerning a girl who passed away during an FGC procedure in an Egyptian hospital was only a one-year suspended prison sentence and a fine of Egypt Pound 1,000 (about 55 euros) for the girl’s mother (who is a nurse) and the anaesthetist, and Egypt Pound 5,000 (about 225 euros) for the doctor.

¹⁵ Reported by 28 Too Many in 2018 – without giving an exact number of prosecutions.

4.1.2.4. Gender inequality in Egypt

Gender inequality remains high in Egypt, which has a Gender Inequality Index (GII)¹⁶ of 0.449 and is ranked 101 of 162 countries (<http://hdr.undp.org/en/composite/GII>). Basic education is free and compulsory in Egypt for the first nine years, and children receive either a secular or an Islamic education, in either state or private schools [23]. However, about 22.1% of Egyptian women have not had any education [23]. Youth literacy rates are higher for men (92.4%) than for women (86.1%) [23, 165]. One of the poorest groups in the country are female-headed households, with over one-quarter of them living under the poverty line in 2014 [23, 166]. Moreover, in 2016, unemployment rates reached 12.5%, with the rate for women at 24.1% [23]. When women do work, they face a wage gap: men earn EGP 884, while women earn EGP 853 [167] (CAPMAS, 2017).¹⁷ Moreover, the percentage of women with an account at a financial institution is only 27% [167] (Global Findex Database, 2018).¹⁸ While there are no laws restricting the ownership and inheritance of land by women (15-49 years), only about 5% of women own a house, and about 2% own land [23]. Cultural systems and traditions restrict women's participation in land ownership, businesses, and decision-making in the home, and in relation to their own health care [23]. In addition, despite harassment being made a criminal offence in June 2014, 99.3% of Egyptian women experience sexual harassment during their lives [23, 168]. Physical violence and the sexual harassment of women is thus widespread in Egypt.

In Egypt, marriage is almost a universal norm, with a financial prerequisite for both the bride and groom, their parents, and extended families [169-171]. However, divorce rates have been increasing in Egypt. Between 1996 and 1999, the divorce rate was 1.2 per 1000 marriages, in 2015, it was 2.2 per 1000 marriages, and in 2017 it was estimated that about 40% of marriages ended within five years. Divorce rates increased to between 393 and 607 per 1000 marriages, depending on rural and urban locations [172] (CAMPAS). Since 2000, the legal system has granted women the possibility and the right to a no-fault divorce. However, women are granted this right to divorce only if they renounce any rights to financial benefits she would normally

¹⁶ The GII (164. United Nations Development Programme. *Gender Inequality Index (GII)*. Human Development Reports 2019.) measures gender inequalities in terms of three important aspects of human development: reproductive health, empowerment and economic status. The GII was developed to better expose differences in the distribution of achievements between women and men, and also measures the human development costs of gender inequality. Thus, the higher the GII value (min 0, max 1), the more disparity between females and males and the more loss to human development.

¹⁷ Numbers reference article retrieved from CAMPAS: Egyptian Central Agency for Public Mobilization and Statistics (2017).

¹⁸ Numbers reference article retrieved from Global Findex Database (2018).

receive. In 2005, the Personal Status Law (PSL) was introduced, extending divorced mothers' rights to child custody until their children (boys and girls) reach the age of 15, or until she remarries, in which case, custody is given to the grandparents [172, 173]. Moreover, despite the legal minimum age for marriage being 18, early marriages still occur [174].¹⁹

The Egyptian government's Sustainable Development Strategy, 'Egypt Vision 2030', includes explicit reference to the need to improve gender equality [175], but the effectiveness of these new laws and strategies depends on there being a deeper societal and cultural change in attitudes towards women and girls [23].

4.1.2.5. Egyptian health system

Public health insurance cover is offered by the Ministry of Health, which operates a series of medical facilities providing free health services. Government spending on health is currently well below the 3% of the GDP set in the 2014 Constitution [176]. Moreover, medical care offered by the public health insurance system is generally of poor quality. Government hospitals are known to be rife with negligence, and they generally provide minimal care. Only about 6% of Egyptians covered by the health insurance organization actually utilize its services, due to dissatisfaction with the level of services it funds. In 2008/2009, 72% of health expenditure in Egypt was paid out of pocket by the people seeking treatment, with Egyptians who can afford it choosing private health care for their primary health-care needs [23, 176].

The maternal mortality rate in Egypt is 49 per 100,000; the under-5 mortality rate is 20.3 per 1000 live births; and the adolescent birth rate (15-19 years old) is 56 per 100 women [167, 177]. Today, 91.5% of all births are attended by skilled health personnel [167, 178]. Women with a lower social position face more health challenges than others [179]. For example, while 44.68% of women aged 15-49 who have ever been married have given birth in a health facility, this was only about 14% for women living in rural areas and among the lowest wealth quintiles [23, 179]. In addition, the amount of antenatal care varies by wealth and educational level [23, 179].

Finally, trained health professionals are not very well paid in Egypt, making their employment status precarious. Monthly salaries range from EGP 1,218 (USD 69) to 6,365

¹⁹ Numbers reference article retrieved from CAMPAS: Egyptian Central Agency for Public Mobilization and Statistics (2017).

Egyptian pounds (USD 361) per month. Of the Egyptian Medical Syndicate's members, only about one-third work in the country [180].

4.1.3. Case study 2: Medicalization of FGC in Kenya

Kenya is a country in East Africa. The new constitution (2010) divided Kenya into 47 counties, with the capital of Nairobi. Kenya is inhabited by various ethnic groups, with the most prevalent being: Embu, Kalenjin, Kamba, Kikuyu, Kisii, Kuria, Luhya, Luo, Maasai, Meru, Mijikenda/Swahili, Samburu, Somali, Taita/Taveta, and Turkana. In 2016, the population was estimated to be 47.8 million, with a growth rate of 1.81% and a median age of 19.5 years. The life expectancy is 64 years, and the fertility rate is 3.14 [22]. The World Bank classifies Kenya as a lower middle-income country (<https://data.worldbank.org/>).

In Kenya, 37 out of 42 ethnic communities perform FGC. Only five ethnic groups do not cut their girls (Luos, Pokomo, Turkana, Luhya & Teso) [124]. In Kenya mainly type 1 – clitoridectomy – and type II – excision – are practised [87, 155]. However, 9% of cut women also report being sewn closed – pointing to infibulation. However, this share is decreasing, based on data for this generation of women's daughters [155]. The KDHS data reveals that the majority of infibulations occur within the Somali community (KDHS 2014). In Kenya, the age of cutting varies between ethnic communities. The youngest age of cutting is found in the Taita/Taveta group, where over half of the cuts occur before the age of five. Within the Taita community FGC is performed on day-old girls [181]. In the Somali group, the majority are cut between the ages of five and nine. Of the Kisii and Kamba women who have been cut, about half were cut within this same age range, while the other half were cut after the age of ten. In the Embu, Kalenjin, Kikuyu, Maasai Meru, and Samburu ethnic groups, girls are cut at later ages, with the majority being cut after the age of ten [22]. In various communities in Kenya, FGC was traditionally a part of a girl's social education, a rite of passage, which was celebrated openly – making it clear which girls have been and who are likely to be cut. Today, the decreasing age of FGC has been accompanied by the practice being uncoupled from these rituals and celebrations [155].

In Kenya, health professionals typically perform FGC in homes, hospitals, or temporary 'clinics' during school holidays [22]. Focusing on Kenya is particularly interesting, since it is the only country where increases in medicalization percentages are accompanied by decreases in FGC prevalence percentages [4].

4.1.3.1. Shifts in prevalence and medicalization percentages

FGC prevalence in Kenya is decreasing overall over birth cohorts. While for women born between 1960-1969, 27% of girls were cut by the age of 14, for women born between 2000-2010, this has decreased to 13%. This decrease was mostly continuous over birth cohorts (Figure 5). At the same time, medicalization percentages increased from 5% for the 1960-1969 birth cohort to 15% for the 1990-1999 birth cohort, although this medicalization rate decreased slightly to 11% for the 2000-2010 birth cohort (Figures 5 & 6). Thus, looking at medicalization percentages on a yearly basis, there is an increase from 1970 to around 2006, after which medicalization percentages start to decrease. Overall, Kenya is unique in having a steep decrease in FGC prevalence in combination with a strong increase in medicalization rates

Figure 5. Prevalence and medicalization of FGC by the age of 14 by birth cohort, Kenya

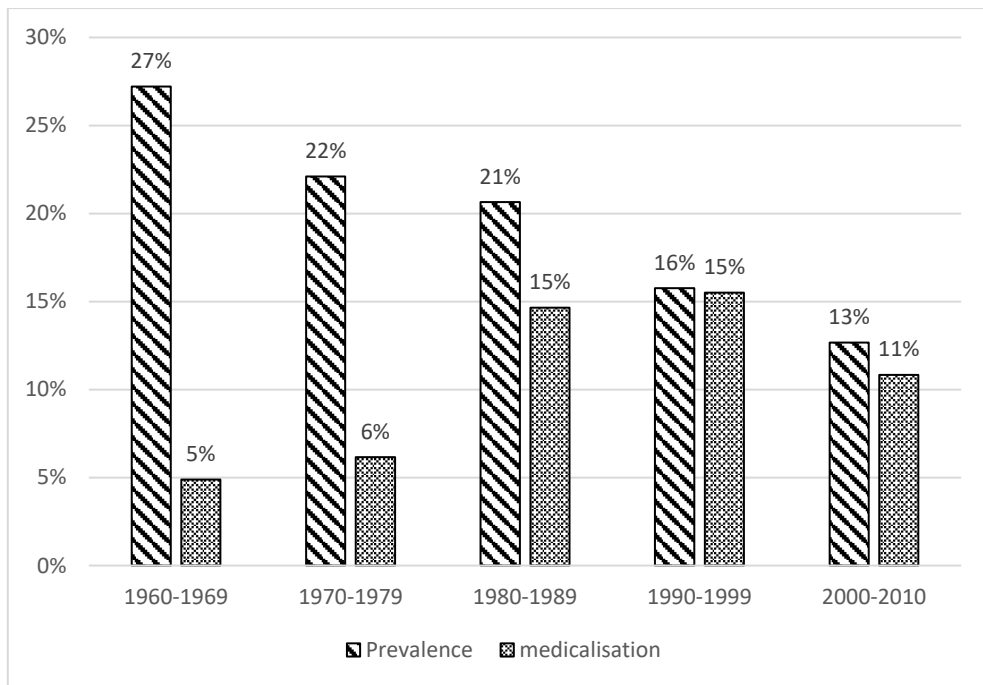


Figure 6. Observed and fitted values of yearly proportion of medicalization of FGC, Kenya

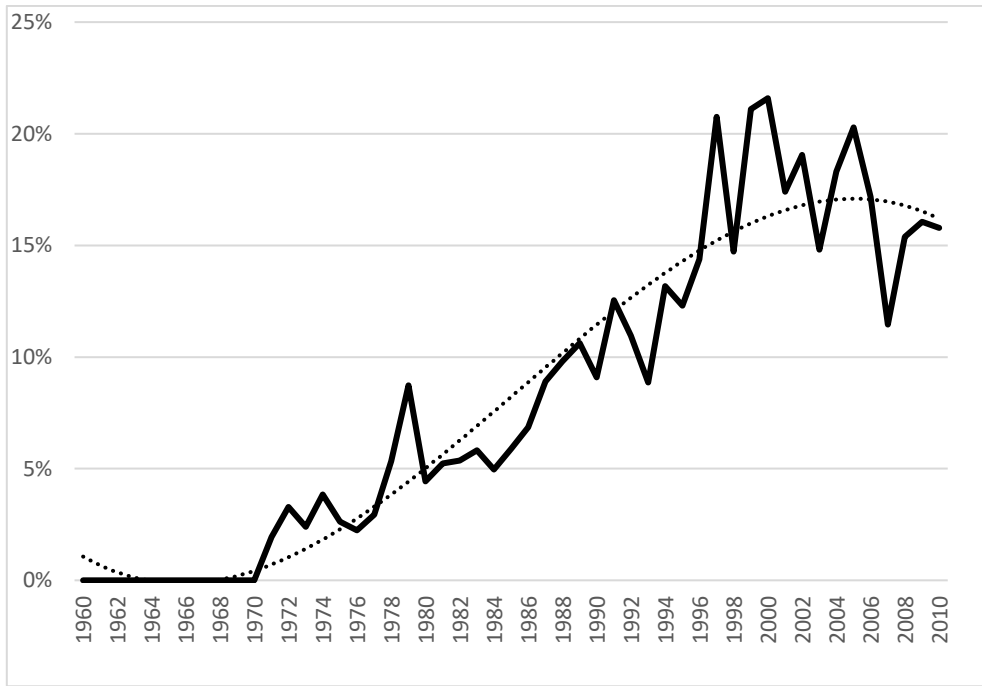


Figure 7. Prevalence of FGC by age 14 and ethnicity, counties Kenya

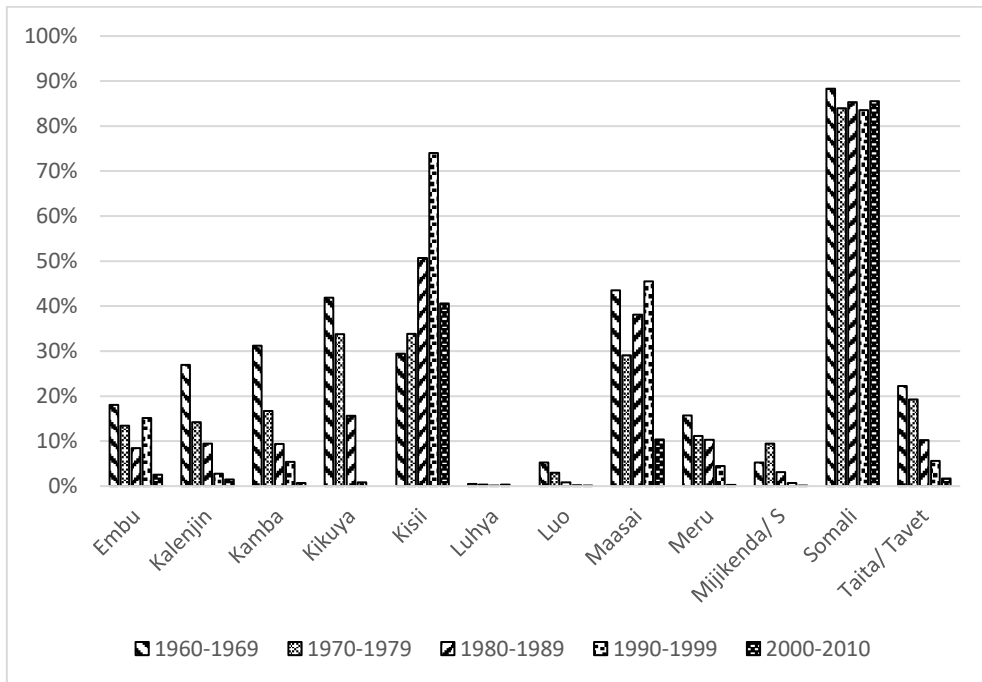
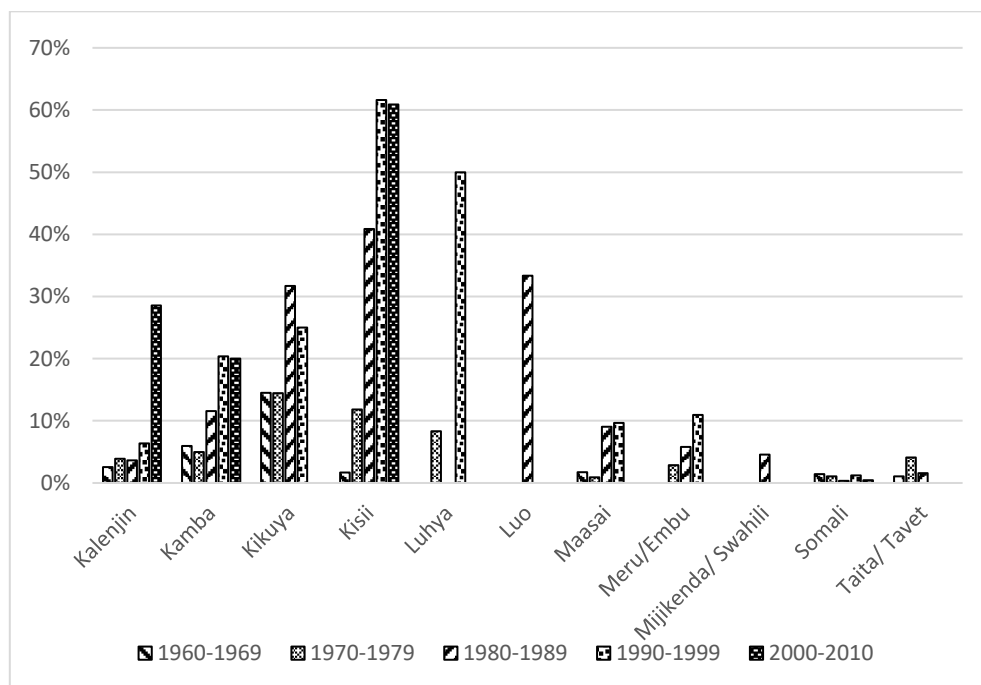


Figure 8. FGC medicalization percentages, counties Kenya



It is important to note that the various ethnic groups in Kenya have varying FGC practices, making trends across the country as a whole subject to a sum of different contexts. Therefore, my research focused on the ethnic community within the county with one of the highest prevalence percentages in combination with increasing medicalization rates, the Kisii community in Kisii county (see Figures 7 and 8). These trends within ethnic groups, show that prevalence was decreasing in all birth cohorts within almost all communities – except for the Kisii, Maasai, and Somali groups. Within the Kisii county, it was merely in the last birth cohort that the prevalence percentage start decreasing (figure 7). Especially for Kisii, there is a strong medicalization trend co-existing with these shifts in FGC prevalence (figure 7 and 8).

4.1.3.2. Legislation on FGC in Kenya

In October 2011, the Prohibition of Female Genital Mutilation Act, in short, the FGM Act 2011, came into effect. This federal Act is the principal legislation governing FGC in Kenya [182]. The FGM Act 2011 criminalizes all forms of FGC, regardless of the age or status of girls or women. The Constitution does not explicitly mention FGC but does stipulate the right not to be ‘subjected to any form of violence’, ‘treated or punished in a cruel, inhuman or degrading manner’ (Article

29). It also states that ‘a person shall not compel another person to perform, observe or undergo any cultural practice or rite’ (Article 44) and protects every child from ‘abuse, neglect, harmful cultural practices, all forms of violence, inhuman treatment and punishment’ (Article 53) [182].

Moreover, Kenya has signed and ratified multiple international and regional treaties.²⁰ While FGC is not specifically mentioned in the Medical Practitioners and Dentists Act or the Nurses Act, health professionals may be removed from the medical registry if they commit an offence under the penal code or have engaged in any infamous or disgraceful conduct in a professional respect or – for nurses – if found guilty of misconduct by the Nursing Council of Kenya [182].

The FGM Act 2011 specifies in Article 19 that the performance of FGC is prohibited, including for health professionals. Anyone who performs FGC is committing a criminal offence, for which the established criminal penalties are imprisonment for a minimum of three years and/or a fine of at least KES 200,000 (USD 1,953). If the practice results in death, the maximum sentence is life imprisonment. Moreover, the use of derogatory or shaming language relating to the practice of FGC is also criminalized, with punishment of minimum six-months imprisonment and/or a fine of at least KES 50,000 (USD 488).

There are two exceptions to performing a procedure involving total or partial removal of the female genitalia or other injury or harmful procedures to the female genital organs for non-medical reasons [182]:

1. Surgical operations performed by a medical practitioner that are necessary for the person’s physical or mental health. However, this necessity cannot be determined based on a person’s culture, religion custom or other practice.
2. Surgical operations performed by a medical practitioner, midwife or medical student in training, on those who are in any stage of labour or have just given birth, for purposes connected with labour or birth.

²⁰ International: the International Covenant on Civil & Political Rights (ICCPR); the International Covenant on Economic, Social and Cultural Rights (ICESCR); the Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW); the Convention against Torture and Other Cruel Inhuman or Degrading Treatment or Punishment (CTOCIDTP); and the Convention on the Rights of the Child (CRC). National: African Charter on Human and Peoples’ Rights (ACHPR); the African Charter on the Rights and Welfare of the Child (ACRWC); the African Charter on Human and People’s Rights on the Rights of Women in Africa (Maputo Protocol) (ACHPRRWA).

Alongside the performance of FGM, the FGM Act (2011; revised 2012) criminalizes the stigmatization of uncut women and puts the onus on the Kenyan government to protect women and girls from FGC. It also established the Anti-Female Genital Mutilation Board. In 2014, the Anti-FGM and Child Marriage Prosecution Unit were also established. Subsequently, a 24/7 hotline was launched to rescue girls from FGC and child marriage and to assist in prosecutions. Moreover, the Protection Against Domestic Violence Act (2015) covers all violence, including FGC.

Thus, today all forms of FGC are prohibited in Kenya, regardless of the education and profession of the practitioner who would perform the procedure [4, 55, 182]. However, the implementation and enforcement of such laws remain a challenge [11, 22, 182]. The number of prosecutions remains limited. The 2016 UNFPA-UNICEF Joint Programme annual report lists 75 cases brought to court and ten convictions in Kenya during 2016 [183]. Moreover, various studies suggest that despite this ban, health-care providers continue to perform FGC [11, 22, 70, 182].

4.1.3.3. Gender inequality in Kenya

Gender inequality remains high in Kenya. It has a Gender Inequality Index (GII) of 0.549 and is ranked 142 of 189 countries (<http://hdr.undp.org/en/composite/GII>). Kenya scores well on women's economic participation and opportunity but is weak compared to other countries on political empowerment, health, and education [22, 184]. Primary education, which is 8 years in Kenya, is free and compulsory. The gender gap in primary education is low, but the dropout rate is high for girls in secondary education [23]. Based on the KDHS 2014, the literacy rates are 87.8% for women and 92.4% for men. There are regional differences, with especially higher literacy in urban areas. Women in rural areas are twice as likely as women in urban regions to have had no education (19.5% versus 8.9%). Moreover, wealth affects both literacy rates and access to education [22].

Marriage in Kenya is near to universal, with about 86% of men married within the age cohort of 35-39 in 2009; for women, the percentage for the same cohort is lower, at 80% [185]. Women marry earlier than men – within the age cohorts between 15 and 25, the percentage of women who are married is much higher than for men [185]. For women, marriage is early, with over one-quarter of women aged 20-49 reporting that they were married by the legal age 18

and almost half by age 20 (based on KDHS 2014) [22]. In 2014, the Marriage Act was implemented, requiring a minimum age of 18 for both men and women. Data show that although it still occurs, early marriage is declining [22]. According to KDHS 2014, about 6% of men and 11% of women are in polygynous marriages in Kenya – with higher percentages (32% for women) found in the northeast. In 2013, a Marriage Bill was introduced to simplify marriage procedures and provide equal legal recognition for all types of marriage, also giving the first wife the right to veto her husband taking additional wives. However, in 2014, the Marriage Act controversially removed this right, while making it a legal obligation to register all marriages [22]. The Constitution of Kenya (2010) states that ‘men and women are entitled to equal rights at the time of marriage, during the marriage and at its dissolution’ [22]. Divorce rates and separation²¹ are low in Kenya (under 3% in all age cohorts in 2009) [185]. However, a recent newspaper article states that divorce rates are increasing steadily in Kenya [186].

The 2010 Constitution also recognized women’s social, economic, cultural, and political rights [22], while in 2016, the Kenyan women’s national charter for realizing the rights of women and girls was pushed forward. Nevertheless, there is a low level of awareness among Kenyan women about their rights. While Kenya’s law recognizes women’s rights and equality, there is a gap between law and practice. For example, adherence to customary law makes it difficult for women to inherit property, which subsequently makes it difficult for them to obtain loans [22]. Discrimination still occurs in areas where laws are not fully implemented, and there are still many barriers for women [22]. In 2014, 44.8% reported that they had experienced violence after the age of 15, with husbands and partners being the main perpetrators. The first piece of legislation to deal specifically with domestic violence – the Protection against Domestic Violence Act – was introduced in 2015.

4.1.3.4. Kenyan health system

Since the introduction of the 2010 Constitution, Kenya’s health system has been devolved from the national level to county governments. The latter is now responsible for the provision of health services and pharmacies, ambulance services, and the promotion of primary health care. The national Ministry of Health has a coordinating role, responsible for leading policy

²¹ In Kenya, divorce is only possible after three years of marriage – before this obligatory period is up there is the option of separation.

development, managing national referral facilities, building capacity, and providing technical assistance to the counties [22].

The National Council for Population and Development aims to provide equitable, affordable, and quality reproductive health services, including family planning. The Kenya Health Policy 2014-2030 builds on this and is targeting the reduction of infant and maternal mortality, as well as the total fertility rates by 2030 [22]. A report evaluating the implementation of the Sustainable Development Goals in Kenya (published in 2017) found that both maternal mortality rates and infant and under-five mortality rates remain high, at 362 per 100,000, 39 per 1000 live births, and 52 per 1000 live births, respectively [187]. The report also claimed that 61.8% of births are attended by skilled health personnel, which is an increase from 43% in 2011 [187]. Barriers to health care remain, with costs being one of the main barriers. Looking at women aged 15-47 (based on DHS 2014 data), 82% have no health insurance cover, and 36.7% reported that finding sufficient funds for treatment is a problem. Therefore, in 2016, free health insurance for pregnant women from low-income and underprivileged backgrounds was introduced. Health insurance in Kenya is provided by both the National Hospital Insurance Fund (providing about 18% of national coverage) and private insurance companies, as well as community-based and micro-financed insurance organizations (providing about 2% of national coverage) [22].

4.2. Data

4.2.1. Quantitative research

Throughout the quantitative analyses the independent variables relate to the mother, and the dependent variables relate to the FGC status of her daughter(s). The choice to focus on mothers when examining decision-making concerning the medicalization of FGC within practising communities was made because mothers typically bear the primary responsibility for making decisions about FGC [55, 56]. Moreover, as discussed above, the decision to cut a daughter also affects a mother's social position [11, 26], which is an additional reason for them to take responsibility for the decision concerning their daughter's cut. In addition, in most cases, the daughters take no part in the decision-making process, as they typically undergo FGC at young ages [22, 23].

Research Objectives 1 to 3 will be approached using quantitative research in Egypt. Looking at these three research objectives, three major clusters of factors that should be included in our

quantitative analyses can be indicated. Research Objective 1 is to explore the association between medicalization trends and a girl's risk of being cut. Research Objective 2 considers the importance of women's social position as a factor the decision-making concerning the medicalization of a daughter's cut. Research Objective 3 looks at the influence of social norms on the association between the mother's social position and her decision to medicalize her daughter's cut or not. The important cluster of factors derived are: the daughter's FGC status, the social position of the mother, and social norms concerning FGC and its medicalization. The latter also refers to medicalization trends, as social norms will be calculated based on prevalence. Below, I will first discuss the database used for our quantitative analyses – the Demographic and Health Survey – with a specific focus on the FGC module of this survey. Subsequently, I will discuss the operationalization of the three clusters of relevant factors indicated.

4.2.1.1. The Demographic and Health Survey and its FGC module

The Demographic and Health Survey is a nationally representative household survey that provides data for a wide range of monitoring and impact evaluation indicators on population and health, through more than 400 surveys in over 90 countries, including Kenya and Egypt [188]. We²² opted to use the respective DHS databases for each country in this dissertation because they are the largest nationally representative databases, and they include information about FGC over various and recent waves.²³ This international survey programme is primarily funded by the United States Agency for International Development (USAID).

Data is collected using a multi-stage cluster sampling design and strata for rural and urban areas: in Egypt for 27 governorates and in Kenya for 47 counties. Egypt's 27 governorates²⁴ are subdivided into *shiakhas* and villages [178, 189, 190]. For the multi-stage cluster sampling design of the Egyptian DHS (EDHS), these governorates were first stratified into urban and rural areas,

²² As all my studies (see articles below) were collaboration therefor we use 'we' when discussing research methodology and results.

²³ The only other large-scale health survey which is nationally representative is the MICS database. For Kenya, the MICS data were collected per county – and only in 2000 for Kenya as a whole (<https://mics.unicef.org/surveys>). For Egypt, MICS data was collected for 1996 and 2000. The DHS thus provides more recent data over various waves.

²⁴ In 2014, North and South Sinai were not included in the DHS for security reasons. However, because the populations of those governorates comprise less than 1% of Egypt's total population, their exclusion does not affect national estimates. Moreover, because they comprise two of the five frontier governorates, information that is presented in this report for the frontier governorates is not comparable to results in prior EDHS waves, in which all five frontier governorates were surveyed.

yielding a total of 51 sampling areas (since Cairo, Suez and Port Said do not have rural areas). To provide for implicit geographic stratification, the list of *shiakhas*/villages in each governorate was sorted in serpentine order, according to their location, from north to south within the governorate. A certain number of these were then selected as primary sampling units (PSUs). Subsequently, maps were obtained and divided into a number of parts of roughly equal size, which were then divided into segments of roughly equal size. Two segments were selected per PSU. Household listing was then obtained for each segment, from which a sufficient number of households were selected using systematic sampling.

The sample design for the Kenyan DHS (KDHS) was drawn from a master sampling framework called the National Sample Survey and Evaluation Programme (NASSEP) that is constructed by the Kenyan National Bureau of Statistics (KNBS) to conduct household-based surveys throughout Kenya and which anticipates clusters that can be split into equal subsamples [191, 192]. The NASSEP was developed by first stratifying the 47 counties into urban and rural areas, resulting in 92 sampling strata (Nairobi county and Mombasa county have only urban areas). From this sampling framework, samples were selected with equal probability and guaranteed spread across counties, with clustering in rural and urban regions. Subsequently, a fixed number of households were selected from each cluster.

In both the EDHS and the KDHS, for the women's sample, which we used in all of the articles included in the dissertation, all women between 15-49 (for the EDHS, women who had ever been married) who were present in the sampled households and spent the night before the interview in the household were eligible for the survey [178, 189-192].

There are two types of DHS: standard and interim DHS [188]. The standard DHS uses large sample sizes (usually between 5,000 and 30,000 households) and typically are conducted about every five years to allow comparison over time. The interim DHS focuses on the collection of information on key performance monitoring indicators, but they may not include data on all impact evaluation measures. These surveys are conducted between rounds of the standard DHS and have shorter questionnaires than the latter. They also generally have smaller samples than the standard DHS, although they remain nationally representative.

FGC is one of the survey topics in the DHS [12], with questions about FGC included for select countries from 1989 onwards. The first DHS that asked questions about FGC was the 1989-1990 survey in northern Sudan, followed by Yemen, Côte d'Ivoire and the Central African

Republic. The actual questions asked varied over the years in response to concerns and data needs of various stakeholders, including Ministry of Health officials from the individual countries, the USAID mission personnel, and interested parties within USAID and other donors and NGOs. Discussions with these and other groups, as well as field experience, have resulted in the development of a standard FGC module in the DHS with suggested questions to be used in any country where FGC is practised. For surveys after 1994 – since 1996 – the DHS questions on FGC have increased in number and have been standardized, including the following categories of questions:

- 1) FGC status of the respondent herself and circumstances of the event for those respondents who have been cut (e.g., age, type of FGC, the person who did the cutting)
- 2) FGC status of the respondent's daughter(s) and circumstances of the event for those daughters who have been cut (e.g., age, type of FGC, the person who did the cutting)
- 3) Perceptions of FGC (e.g., support, benefits, drawbacks, health consequences, the rationale for doing FGC). From 2003, opinions of both men and women were sought.

As the current dissertation focuses on Egypt and Kenya, I made a summary of FGC-related variables that were included in the various DHS waves in which the questions about FGC were asked in both countries (Table 1).

For each research objective that is addressed in this dissertation, we created subsamples of the EDHS (waves 2005, 2008, and 2014) or the KDHS women's samples (waves 2008-2009 and 2014). While the samples included mothers, the sample selection was always based on daughter-related FGC variables. In relation to Research Objective 1 – where we look at how medicalization trends are associated with a girls' risk of being cut within the Egyptian context – we included mothers who have at least one living daughter younger than 13 years of age. We determined this age-related limit based on the assumption that the FGC status of a girl will be determined by 13 years of age as, in Egypt, the vast majority of cuts occur before that age [178, 189, 190]. For Research Objective 2 – exploring the association between a mother's social position and her decision to medicalize her daughter's cut or not within the Egyptian context – in Article 1 we selected mothers with at least one daughter who had undergone FGC. In Article

2, we broadened the sample, as we also wanted to include women who opted not to cut their daughter. We then selected – in line with our assumptions about age for Research Objective 1 – mothers who had at least one daughter older than 12. Including the normative context (Research Objective 3), led us to exclude governorates with a low population density (under 300 inhabitants per square kilometre), as these contexts are unsuitable for assessing social norm mechanisms (with the number of respondents also low within these governorates). For Research Objective 4 – exploring the mother’s motivation to medicalize her daughter’s cut or not in a context where the shift towards medicalization accompanies a steep decrease in FGC prevalence (within the Kisii context) – we selected mothers belonging to the ethnic Kisii community who had at least one daughter cut.

Table 1. Summary of FGC-related variables for various EDHS and KDHS waves

	EHDS							KDHS					
	'95	'00	'03	'05	'08	'14	'15	'89	'93	'98	'04	'08- '09	'14
<i>No info on FGC</i>								X	X				
Introduction questions													
FGC in community										X	X		
Ever heard of FGC	X	X	X		X							X	X
FGC Respondent													
Occurrence of FGC for respondent	X	X	X	X	X	X	X			X	X	X	X
Type of FGC													
Flesh removed from genital area												X	X
Genital area just nicked without removing any flesh												X	X
Vaginal area cut	X												
Genital area sewn closed	X											X	X
Respondent’s age at FGC	X			X	X					X		X	X
Who performed FGC	X				X	X	X					X	X
Where – place of FGC	X						X						
Tool used in FGC	X												
Any anaesthetic	X												
Complications FGC ²⁵	X												
Health care for complications ²⁶	X												
Intend to have herself/all uncut daughters cut				X									
FGC Daughter(s)													

²⁵ Additionally, was asked specifically whether the respondent suffered severe pain, bleeding, infection/fever, urinary, swelling, shock, or other complications following FGC.

²⁶ Additionally, was asked specifically whether respondent was hospitalized, sutured, had a blood transfusion, received medicine or injection, or received other health care.

Occurrence of FGC for eldest daughter (ED)						X	X		
Plan to have ED cut?						X			
Age of ED at FGC						X	X		
Who performed FGC of ED						X			
Where - place of FGC ED						X			
Instruments used for FGC ED						X			
Type of FGC ED						X			
Before ED was cut, was she informed						X			
Number of daughters circumcised	X	X	X		X	X		X	X
Line number of daughter most recently/last circumcised (MRCD)	X							X	X
Type of FGC MRCD									
Flesh removed from genital area of MRCD								X	X
Genital area of MRCD just nicked without removing flesh								X	X
Genital/vaginal area of daughter MRCD sewn closed	X							X	X
Age of daughter MRCD at circumcision	X	X	X					X	X
Who performed FGC MRCD	X	X	X					X	X
Where – place of FGC MRCD	X								
Any anaesthetic MRCD	X								
Tools used for FGC MRCD	X								
Complications MRCD ²⁷	X								
MRCD received health care ²⁸	X								
For all daughters (AD): FGC occurrence				X	X	X			X
AD: Age at FGC				X	X	X			X
AD: genital area sewn closed									X
AD: who performed FGC				X	X	X			X
Number of daughters who have not been cut					X	X			
Any daughter who is not circumcised					X	X		X	X

²⁷ Additionally, was asked specifically whether the daughter suffered severe pain, bleeding, infection/fever, urinary, swelling, shock, or other complications following FGC.

²⁸ Additionally, was asked specifically whether the daughter was: hospitalized, sutured, had a blood transfusion, received medicine or injection, or received other health care.

Intends to have daughter(s) circumcised in future	X			X	X			X	X
Intend to have all uncut daughters cut		X	X						
Reasons to not cut uncut daughters ²⁹	X								
Who encourages FGC daughters ³⁰	X								
Opinions FGC									
FGC benefits ³¹		X						X	X
Benefits of no FGC ³²		X							
FGC is required by religion				X	X	X		X	X
FGC is part of religious tradition	X								
Should FGC continue/stop	X	X	X	X	X	X	X	X	X
Believes men want to continue FGC ³³		X	X	X	X	X			
Place circumcision performed		X							
Reason to continue ³⁴	X						X		
Reason to discontinue ³⁵	X								
How to stop ³⁶	X								
Reason not intending FGC: ³⁷		X	X						
FGC is an important part of religious tradition		X	X	X					
Respondents agree/does not agree:									
Husband prefers FGC		X	X	X	X	X			
FGC can cause girl's death		X	X	X	X	X			
FGC prevents adultery		X	X	X	X	X			

²⁹ Reasons specifically asked about: respondent opposed, complications, religion, marriage, husband's pleasure, other.

³⁰ Parties specifically asked about: husband, mother, husband's mother, respondent's relatives, husband's relatives, friends/neighbours, daughter, by tradition or none.

³¹ Benefits or advantages. Specifically asked about whether respondent agrees or not that FGC benefits: cleanliness/hygiene, social acceptance, better marriage prospects, virginity/prevent premarital sex, more sexual pleasure for men, religious approval or other. In the EDHS 2000 and the KDHS 2008, the possible benefit of reducing promiscuity/reducing sex drive was also asked about, with the option to state that FGC has no known benefits. The KDHS 2008 also asked about reducing STD and AIDS, and the EDHS 2000 about traditions, giving the option to state, 'I don't know'.

³² Benefits specifically asked about: fewer medical problems, avoid pain, more female sexual problems, follows religion, other, none and don't know any benefits of not having FGC.

³³ In the EDHS 2015, posed as: 'Do you think that the other gender want this practice to continue or to stop?'

³⁴ Specifically asked whether FGC should continue because it is: a good tradition, required by religion, cleanliness, marriage prospects, husband's pleasure, keep virginity, prevent adultery, other or does not know.

³⁵ Specifically asked whether FGC should be discontinued because it is: a bad tradition, against religion, complications, painful experiences, women's dignity, sexual satisfaction, other or does not know.

³⁶ Specifically asked if FGC should be stopped by prev practitioners, sex education, education campaigns, others or don't know.

³⁷ Specifically asked about possible reasons for not intending to do FGC: don't believe/accept it, afraid of complications, against religion, greater pleasure husband or other reasons.

FGC causes fertility problems/causes problems in getting pregnant	X	X				
FGC lessens sexual satisfaction	X	X				
FGC makes childbirth more difficult	X	X	X	X	X	X
Source of FGC information³⁸			X	X	X	
Last year: heard, seen or received information about FGC				X	X	X
Where did you hear or see this information (last year) ³⁹	X	X				X
Discussed FGC during the past year						X
Last year: discussed FGC with relatives/friends	X	X		X	X	
Opinion about FGC changed in past year	X					
Persons with whom discussed practice of FGC ⁴⁰						X
Person(s) who made decision for daughter's circumcision ⁴¹						X

4.2.1.2. Operationalizing FGC status of daughters

In our quantitative analyses, the outcome variable always refers to the respondent's daughter's FGC status.⁴² For Research Objectives 1 and 4 this concerns whether the daughter is cut or not, and for Research Objectives 2 and 3 whether this cut was medicalized or not – or in combination, whether a daughter is traditionally, medically, or not cut. The respondents are specifically asked whether a daughter has been cut or not: 'Is [name] circumcised?' Within the DHS questionnaires, the terminology for FGC is adapted to the local context; in other words, using local terminology for the practice.

³⁸ Asked about various possible sources: TV, radio, newspaper/magazine, pamphlet/brochure, poster, community meeting, home visit by health worker, facility-based health worker, husband, other relative/friend or other. The EHDS 2005 also asked about religious leaders as a possible source of information on FGC and the option to answer 'other' or have received no information.

³⁹ Asked about various possible sources: TV, radio, newspaper/magazine, community meeting, mosque/church.

⁴⁰ Specifically asked about: no one, respondent's husband, respondent's mother, respondent mother in law, other relative of respondent, other relative of husband or other.

⁴¹ Specifically asked about: no one, respondent's husband, respondent's mother, respondent's mother-in-law, other relative of respondent, other relative of husband or other.

⁴² The age range of the daughters whose FGC status was asked about was: 0-14 for both the KDHS 2008-2009 and 2014; 0-17 for both the EHDS 2005 and 2008; and 0-19 for the EDHS 2014.

In line with the WHO definition of medicalized FGC [3], we merely look at the practitioner performing the cut to define whether a cut is medicalized or not; we do not take into account the equipment used or the circumstances under which FGC is performed. The surveys ask whether the cut was performed by a doctor, nurse or another health-care provider, *dayas* (traditional midwives), barbers, or others. We grouped the first three within the category of health professionals – and thus performing medicalized FGC – and the latter three as traditional practitioners – and thus performing traditional FGC. Despite our critical analysis of the WHO definition (see 6.2.1.), we chose to use this rather restricted definition. This decision was largely data-driven, as the DHS questionnaires included in our analyses merely asked about the practitioners and not about the location or the equipment used during the procedure (see Table 1). Moreover, as the WHO definition is widely used in policymaking and previous research, it enables comparison if applied across policy reports and research articles. Nevertheless, this might also contribute to the continued reliance on the restricted WHO definition of medicalized FGC, which we would prefer not to do.

4.2.1.3. Operationalizing women's/mother's social position

While women's social position is defined in the majority of articles in terms of socioeconomic status – which is a rather 'high-income country view' on social position – we believe women's social position is more complicated and should be defined and operationalized in relation to its specific context. In African social systems, the family and community are often the central institutions, whose interests override those of the individual. Marriage is thus crucial for women. Patriarchal control and family honour are constructed and derived through marriage, and the social and sexual control of women [29, 58-62]. Women derive their social status and economic security through their roles as wives, mothers, mothers-in-law, and grandmothers, while men largely derive their social status through activities in the social sphere [29, 58, 63]. An essential part of a woman's social position concerns her place within the household and her freedom to make decisions that affect her own and her family's personal affairs [23]. Her social status thus depends not merely on her social position outside but also within the household.

The operationalization of women's social status in this dissertation is primarily based on an article by Kishor and Subaiya, 'Understanding women's empowerment: a comparative analysis of Demographic and Health Surveys (DHS) data' [193]. This article specifically discusses

how to operationalize women's social position based on DHS data. While for the Kenyan context we merely based ourselves on Kishor's operationalization, for the Egyptian context, we additionally took into consideration the operationalization of women's social position as discussed by Yount in the article, 'Measurement of Women's Agency in Egypt: A National Validation Study', which is specific to the Egyptian context [131].

Kishor and Subaiya indicated three clusters of women's empowerment around: *sources* of empowerment, *setting or conditions* for empowerment, and *evidence* of empowerment. The potential sources of empowerment are those that provide the building blocks for actual empowerment. The KDHS variables operationalizing this are educational attainment, media exposure, and employment for cash. Settings or conditions for empowerment are the circumstances of the respondent's current and past environment that condition the outlook and opportunities available to women. These are operationalized by the KDHS through the variables of age at first marriage, spousal age at marriage, age at first birth, earning control, nuclear family residence, and urban residence. Kishor and Subaiya also report on guidelines formulated in 1998 by an advisory group to guide the integration of gender questions into DHS questionnaires. Since most previous DHS indicators measure only the source and setting of women's social position, the advisory group argued for the integration of indicators of evidence of empowerment into the DHS core questionnaire. Three sets of evidence of empowerment variables were introduced into the questionnaire: participation in household decision-making (items in the DHS: on own health care, making large household purchases, making household purchases for daily needs, visiting family and/or friends/relatives, what food should be cooked), women's attitudes towards gender equality in roles and rights (items in DHS: opinion on justification of 'wife-beating' in several circumstances, i.e., she goes out without telling him, she neglects the children, she argues with him, she refuses to have sex with him, she burns the food) and women's acceptance of unequal gender roles (DHS items on when a woman is justified in refusing sex, i.e., when she knows her husband has a sexually transmitted disease, she knows her husband has sex with other women, she has recently given birth and is tired or not in the mood). The latter two sets explore women's acceptance of norms that subordinate women's bodily integrity and sexuality to men. We refer to both sets as gender attitudes. The authors argue that the sum of these variables leads to a comprehensive and complete picture of women's social position.

In our Kenyan analyses, we aimed to integrate these three clusters of empowerment into our operationalization of women's social position. Unfortunately, missing variables made it

impossible to include some variables for which we had no conclusive information (spousal age at marriage, nuclear residence, beliefs in the ideal of gender equality in roles and rights), or for which too high a percentage of missing values forced us to exclude (mother's influence in decision-making and earning control). The women's social position variables included in Article 4 were: the respondent's gender views (ranging from 0 to 1, with higher scores indicating more tolerance of wife-beating, which implies a more traditional gender view), highest educational level, current employment status,⁴³ media use,⁴⁴ age at first marriage, age at first birth and urban residence.

Yount's article is particularly interesting because of its focus on the contemporary Egyptian context. The article takes into account contextual specificity as guidance, which is proven to be important [194]. Using national data (Egypt Labor Market Panel Survey 2006), she explores the structure of women's agency using applied factor analysis. As a result, she finds that women's social position in Egypt is multi-dimensional, comprising freedom of movement in public spaces, influence in family decisions (including those traditionally undertaken by men), and attitudes about gender (specifically violence against wives). The latter two elements correspond to Kishor's operationalization of women's social position in Kenya.

In our research related to the Egyptian context, we use the factors traditionally included in previous studies (educational level, employment status, household wealth, spousal age difference, age at first birth) and complement these with a measure of the degree of autonomy in making household decisions and a measure of attitudes towards domestic violence. Freedom of movement, age at first marriage, and control over own earnings, which are also considered to be relevant indicators of women's social position, were difficult to include when using the EDHS database because of a high percentage of missing values, or because they were not included in the EDHS waves used in our analyses.

⁴³ Information on the types of earnings was not taken into account, since it had a missing value of 30%. Moreover, in Kenya there is a great amount of self-employment and a large informal economy (and thus no payroll data).

⁴⁴ For which we constructed a value scale ranging from 0 to 3, with higher scores indicating higher exposure to media, including radio, television and papers.

4.2.1.4. Operationalizing social norms

Throughout our articles, we aimed to operationalized two social norms: to cut and/or to medicalize this cut. The norms were operationalized as prevalence calculations, based on the principle that the social norm could be calculated by dividing the degree of cutting by the female population within a certain region, age-range and/or period. The principle of the medicalization percentages was to divide the degree of medicalized cut (based on practitioner) by the total number of cuts within a certain region, age-range and/or period. Medicalization trends – to approach Research Objective 1 – were operationalized in the same way.

This choice to use prevalence as an indicator of social norms is in line with convention theory. This theory – as discussed above (see 2.2.2.) – states that unless women know that others will refuse to cut, they will follow the norm to cut; in other words, parents will feel that they have to conform to social norms regarding FGC [11, 54, 56]. Thus, as long as FGC remains a universal social norm, FGC will be maintained. Moreover, based on this theory, we might expect that if medicalization percentages of FGC increase to the point that medicalization is almost universal – medicalization itself might act as a social norm. We thus operationalized social norms through prevalence calculations, aiming to discover the ‘tipping points’ – the level at which medicalization percentages might lead it to become the norm and/or the level at which prevalence percentages concerning the practice of FGC might decrease the strength of the social norms [35, 56].

Within the articles that have made these calculations, we installed a time lag, since decision-making concerning FGC might be influenced by social norms that are present well before the moment that FGC actually takes place [195]. In Article 1, we used a five-year time lag when we calculated annual medicalization percentages. In Article 3, we looked at the percentages of FGC prevalence and medicalization of previous 6-years birth cohorts.

4.2.1.5. Quantitative analyses methodology

In this section, we give a brief outline of the methodologies and models used in the various studies. They are discussed in more detail within each of the research articles. Here, we limit ourselves to an overview of the statistical methods used to avoid repetition throughout the dissertation.

To explore the association between FGC medicalization and a girl's risk of being cut (RO1), we applied a discrete-time event-history regression model analysis combined with governorate fixed effects. The analyses for the first article were conducted by Naomi Biegel in collaboration with Sylvie Gadeyne. The method was chosen because it allows for the estimation of how changes in the medicalization percentages within each specific governorate relate to a girl's risk of being cut, while simultaneously controlling for the relevant covariates (e.g., mother's level of education as a proxy for her social position). The age of the daughter was selected as the baseline exposure variable, which was included as 13 dummies (ages 0 up to 12). As all daughters were included, and thus a mother may have multiple daughters, robust standard errors were applied to control for the clustering of daughters within the same mother. Governorates were also included as separate dummies, which controlled for any unobserved time-constant effects at the governorate level. All analyses were performed using the Stata SE software package [196].

To explore the association between the mother's social position and her decision to medicalize her daughter's cut or not (RO2), various methodologies were applied in each research article. In Article 4 (Chapter 5.4), we merely looked at the descriptive statistics of women's social position factors for each group of mothers who did or did not opt to medicalize their daughters' cut. Means were provided for the continuous variables, while percentages were provided for the categorical variables. While this was not an advanced statistical analysis, it gave us an indication of the association between women's social position and her decision to medicalize her daughter's cut or not.

In Article 2 (Chapter 5.2), which focuses on this association at the individual level only, logistic regression was applied. Logistic regression was the most convenient statistical method, since our outcome variable was a binary variable [197-199], differentiating between a daughter's cut being medicalized or not. The logistic analyses were performed using the statistical software SPSS 24. In Article 3 (Chapter 5.3), the outcome variable includes the additional option of not having a daughter cut. Here, we thus opted for multinomial analyses – as well as multilevel analyses when social norms were included in the analyses.

We then conducted multilevel multinomial analyses to explore how social norms concerning the performance of FGC or not, as well as its medicalization or not, influenced the association between the mother's social position and her decision concerning her daughter's cut

(RO3).⁴⁵ Multilevel analyses allowed us to grasp the influence of contextual factors – the social norms – on associations at the individual level – here, between a mother’s social position and the FGC status of her daughter. The multilevel analyses were conducted in collaboration with Veerle Buffel, who is specialized in such analyses. These analyses were conducted using the software MLWin 2.2 [200].

4.2.2. Qualitative research

Qualitative research was conducted in Kisii county, Kenya, to explore the mothers’ motives for medicalizing their daughter’s cut or not, in a context where the shift towards medicalization accompanied a steep decrease over birth cohorts in FGC prevalence (RO4).

4.2.2.1. Research collaborations and preparation

The qualitative research was conducted in Kisii county, Kenya (3 November 2019–24 November 2019). To prepare myself to conduct this qualitative research, I attended a course on qualitative research methods in health care organized by QUALUA.⁴⁶ In addition, throughout the preparation of this qualitative research, I was assisted by Sibyl Anthierens, who has an extensive background in doing such research.

Kenya offered a favourable context in which to conduct fieldwork, as a collaboration network with Kenyan researchers could be easily set up through the ANSER network.⁴⁷ Another advantage was that many inhabitants speak English, which allowed us to communicate easily with local researchers and collect the data ourselves. Within the Kenyan context, we opted to conduct research in Kisii county, which is a region mainly inhabited by the Kisii ethnic community. We made this choice based on the data presented in figures 7 and 8 discussed above, as we

⁴⁵ For this paper, I completed the ‘Multilevel analyses’ course given by Kelyvn Jones at the University of Leuven, which is a part of the Master’s programme in Quantitative Analysis in the Social Sciences. During this course, I also learned to work with the statistical software MLWin, which was used to conduct our multilevel analyses.

⁴⁶ A research group at the University of Antwerp that has particular expertise in quantitative and qualitative research methodologies, systematic review, clinical trials in primary care settings and implementation research.

⁴⁷ Academic Network for Sexual and Reproductive Health and Rights Policy, which is a Ghent University & International Centre for Reproductive Health led initiative (<https://www.ugent.be/anser/en>) – of which I was an active member during my PhD.

aimed to conduct research within a high FGC prevalence community where increasing FGC medicalization percentages accompany a decrease in FGC prevalence percentages.

Through collaboration with Dr. Tammary Esho and the Technical University of Nairobi, a local research team was set up, consisting of four local researchers who were inhabitants of Kisii county. Before going into the field, a two-day interview training course for the local researchers was organized by the author, Nina Van Eekert, and Tammary Esho, at the Africa Coordinating Centre for the Abandonment of FGC (ACCAF) in Nairobi. The subjects discussed during this course were the state of the art in the research concerning the medicalization of FGC in Kenya, the research questions of this Ph.D. dissertation, and the specific research objective of the qualitative research in Kenya – understanding what drives mothers to medicalize their daughter’s cut or not – the planned method of data collection, the sampling strategy, interview skills (including role plays), how to transcribe interviews and, finally, the ethics of the study, including how this dimension should be discussed with the respondents. Moreover, the interviewers were encouraged to reflect on their position and their performance during interviews. After each interview that they conducted, they were asked to write a short summary and reflect on how the interview went – such as what lines of inquiry or elements of the approach should remain and be used in subsequent interviews, and what needed to be changed and/or improved.

The project and collaboration with the local researchers were very educational for all parties, as well as contributing to the research. As three of the four local researchers did not have any interviewing experience, they developed new skills throughout the project. The fourth shared her knowledge and experience with the entire group and took on the team leader role during the fieldwork when I was absent. I learned a lot about the Kisii context through the team, with the local team also making some suggestions on how to adapt the research to the local context. The major change was that we decided to target the respondents based on their daughter’s age (8-14 years old) rather than their daughter’s FGC status, as the local team thought this was too sensitive a question to ask before the interview. The daughter’s age range was chosen because FGC usually occurs around these ages, and therefore the daughter’s cut was a relatively recent or ongoing event for these mothers, which increases the credibility of the data. Moreover, we decided to give the respondents a small financial compensation for their time at the end of the interview (300 Kenyan Shillings – which is about 2,5 euros). Finally, the local researchers expressed their concerns about me conducting the interviews, as they

expected that the respondents would not discuss FGC openly with me because they would think that I was affiliated with a monitoring authority. We agreed that if I was going to conduct the interview, the respondents would be informed beforehand about this, with one of the local researchers discussing my neutral role as a researcher.

Ethical approval for this qualitative research was required and received from the Ethics Committees of the Faculty of Social Sciences at the University of Antwerp, the African Medical and Research Foundation (AMREF) Kenya, and the Kenyan National Commission for Science, Technology, and Innovation (NACOSTI). All approvals (see appendix 7.2) were sought before the start of the project. Respondents were notified about these ethical approvals and their rights as respondents through an information sheet (see Appendix 7.3). Informed written consent – to audio tape the interview and use the collected information for academic research and publications - of all participants involved was obtained when they enrolled in the study (see Consent sheet, Appendix 7.4.). We discussed and practised with the local researchers how best to discuss this information and consent form in an understandable way, to ensure that the interviewees were aware of the research aims and their rights as respondents. Specific attention was paid to the discussion of the right of the respondent to discontinue the interview at any time and the right not to answer a question.

Moreover, it was emphasized that the research was neutral and independent from any policymaking body or monitoring authority. Thus, there would be no reporting of FGC practices to legal authorities. As a conversation about FGC might be stressful because of the surrounding taboo and/or its illegality and/or is reminding the respondent of a stressful event, we assumed that some respondents might find it upsetting to recall and discuss their own experiences. Therefore, it was important that the interviewers were aware of the delicate nature of the subject and sensitive to the limits of the respondents, and that they would assure the respondent that she was free to decline to answer any specific question if she felt that the information was too sensitive or personal. This turned out to be important in putting the respondents at ease during the interviews. How to do this best was discussed and prepared with the local researchers, who were aware of the contextual, cultural sensitivities within the Kisii community, of which they were are part. Moreover, the consent and information sheet also gave the respondents the contact details of Tammay Esho, who works as a psychosexual therapist and who would offer support when necessary. Finally, before we could start the data collection, we were obliged to obtain permission from the local Kisii county commissioner.

4.2.2.2. Qualitative data collection

Data were collected through 29 face-to-face interviews within the Kisii community in Kisii country, Kenya. While we initially aimed to also conduct focus groups, during the fieldwork, we decided not to do so because of the sensitivity of the subject. All of the local researchers, as well as Dr Tammary Esho, advised us to focus on the interviews. Single interviews generate more in-depth ideas than focus group interviews. Moreover, in focus groups, social norms are more likely to influence what respondents might say or not say during a discussion, while individual interviews provide an opportunity to nuance the information shared [201-204]. The interviews were conducted by the author and the four local researchers. We all conducted roughly the same number of interviews, with the local researchers interviewing in the local Kisii language, while I performed the interviews in English with immediate translation, being accompanied by one of the local researchers.

The local research partners took up the task of recruiting respondents, who were identified through the local network of the researchers, with one field guide also employed. Purposeful sampling was used [201-204], aiming to recruit respondents who were mothers with daughters between the ages of 8 and 14. This age range was chosen because it would mean that FGC was a current or recent issue, which would increase the credibility of the mother's story and give us an up-to-date interpretation of the practice. The local researchers and the field guide were members of the community and thus had knowledge about family composition within the community. All of the interviews, with the exception of one, occurred in the respondent's home, with one woman being interviewed in the home where she was employed as domestic help.

The interviews were semi-structured using a topic list (see Appendix 7.6.), including a drop-off questionnaire (see Appendix 7.5.) [201-204]. The latter aimed to receive information about the respondents' socio-economic position. The content of the topic list was based on a literature review and previous quantitative research. To begin with, respondents were asked about their family, aiming to put them at ease. When introducing the topic of FGC, we first asked about the practice within the community as a whole. We made the statement that FGC was known to be of high prevalence in Kisii county and community, and asked the respondents what they knew about it. Questions about FGC first related to the Kisii population as a whole. It was only in the last phase of the interview that the respondents were asked about the planned or current FGC status of their daughter, their decision-making concerning the cut, and its organization, if applicable. In the face-to-face interviews, we aimed to apply a narrative approach to give

mothers the opportunity to describe their decision-making process concerning the cutting of their daughters in a biographical manner [201-204]. Nevertheless, it was apparent that the topic remained sensitive, and in most cases, probing was necessary.

At the beginning of the fieldwork, the topic list was pilot-tested for clarity, comprehension, content, and cultural sensitivity with a group of women from the selected communities [201-204]. After all of the interviewers (the local research team/myself) had conducted their first interview, we discussed the topic list as a team group. Based on the first interview transcripts, I also provided feedback on the interview skills of the local researchers. Moreover, I gave specific feedback about the topics that required more probing by repeating the research objective.

4.2.2.3. *Qualitative analyses methodology*

The interviews were audio-recorded and transcribed verbatim if conducted in English – or transcribed in English after translation by the local researchers. The team leader of the local research team checked the transcripts for translation, especially when a lack of clarity was detected during the interim analysis. Once the transcripts were finalized and comprehensive, they were to be analysed thematically. During the research stay in Kenya, the first transcripts were read and discussed with the local researchers, during which we noted some topics that needed more probing. I specifically asked the local researchers to do this – aiming to achieve data saturation on all aspects of the decision-making of mothers concerning their daughter's FGC [201-204]. Subsequently, once I had time to fully dedicate myself to the data analyses, the interview transcripts were imported into NVivo 12 and thematically analysed [201-204]. In a further discussion with the article's co-authors, we compared our coding of a sample of interviews in order to prepare the final code list. This final list was analysed and sorted to identify overarching themes and sub-themes. Researcher triangulation increased the credibility of this study, with the codes examined and compared in relation to each other.

4.2.2.4. *Data management*

Once I received the transcripts and finalized them in collaboration with the local team leader, I requested the local researcher to delete all audio-recordings, transcripts, and metadata from the local researchers' computer. Then, only myself and my supervisors will have access to the un-anonymized data through a secure password-protected UA one drive file.

The analyses were performed using anonymized transcripts, with the identity of the respondents not revealed by looking at the transcripts alone. Information about the respondents' identity was gathered during the interviews to create a trusting relationship. However, in the transcripts, all of the respondents were given a pseudonym, with only anonymized data on the respondents' background information, such as socioeconomic status, mentioned in the transcripts. Even in the consent form, the respondents were given the option to use a pseudonym. The key data connecting the raw data, the original audio-recordings, and the transcripts will be stored in three separate password-protected secured one-drive files. This key data can connect the anonymized meta-data to the transcripts, but not to the original audio-recordings. Anonymized meta-data means that the data is not visible, but that by means of a code, the data can be revisited.

Concerning the data life cycle, it will be destroyed after 10 years of storage time from the data collection moments. The data was collected with the purpose of being used for the current doctoral study – I will not pass on the data to researchers not involved in this study without the consent of the respondents. Only the research groups involved are permitted to use the data for research.

The respondents' right to inspect the personal information collected about them and their right to request adjustments was mentioned in the information sheet. The possibility of being informed of the results after the completion of the study was also mentioned in the instruction sheet. At the end of the consent form, the respondents were also asked whether they would like to be informed about the research results. Seven respondents requested that they be informed. Consequently, the local research team leader, Martha, and I made a summary of the research results for them, which was translated into the local language by Martha, who later delivered them to the respondents who had requested them. The summary can be found in Appendix 7.7., in both English (Appendix 7.7.1.) and Ekegussi (Appendix 7.7.2.).

5. Results

5.1. Article 1: An examination of the medicalization trend in female genital cutting in Egypt: how does it relate to a girl's risk of being cut?

Chapter based on the publication:

Nina Van Eekert, Naomi Biegel, Sylvie Gadeyne & Sarah Van de Velde. (2020). An examination of the medicalization trend in female genital cutting in Egypt: how does it relate to a girl's risk of being cut? *Social Science & Medicine* (258). Doi:

10.1016/j.socscimed.2020.113024

5.1.1. Abstract

Female Genital Cutting (FGC) is increasingly being performed by trained health professionals. International, national, and local institutions strongly oppose this medicalization trend, arguing that the involvement of health-care providers in the performance of FGC will counteract efforts to eliminate the practice. However, no empirical research to date has confirmed or refuted this claim. Therefore, it remains unclear how the medicalization of FGC relates to changes in the prevalence of the practice.

In the current paper, we aim to fill this gap in the literature by examining the association between this medicalization trend and the risk of FGC. We focus on Egypt because of its high medicalization and prevalence percentages and its unique history of FGC legislation. We performed a discrete-time event-history regression analysis combined with governorate fixed effects using the Egyptian Demographic Health Surveys from 2005, 2008, and 2014 (N = 49,273 daughters clustered within 29,810 mothers).

Our results show that increasing medicalization percentages coexist with decreasing prevalence rates. This effect is particularly pronounced in a context where a substantial number of cuts were medicalized (estimated at 40% and above). This effect is significantly more pronounced in higher educated mothers.

Our study thus shows that the medicalization of FGC can coincide with decreasing prevalence percentages of FGC. Medicalization of FGC may take place in a context where an awareness of the health hazards related to FGC is more pronounced, thereby also discouraging the practice as a whole. In addition, the medicalization of FGC may make the practice more individualized and therefore reduce the incentives for FGC.

5.1.2. Introduction

Female Genital Cutting (FGC), also known as Female Genital Mutilation (FGM), comprises all procedures that involve partial or total removal of the external female genitalia, or other injuries to the female genital organs for non-medical reasons [88]. The practice is increasingly being medicalized, which is defined by the World Health Organization (WHO) as, ‘a situation in which FGC is practiced by any category of health-care provider, whether in a public or private clinic, at home, or elsewhere’ [3]. The medicalization of FGC is strongly condemned by the majority of parties involved in the fight to abandon FGC. The United Nations (UN), WHO, and other important international, national and local institutions, strongly oppose medicalization based on the argument that the involvement of health-care providers in the performance of FGC will counteract efforts to eliminate it and impede progress towards its abandonment [3, 6]. In 2010, a global strategy was developed specifically to stop health-care providers from performing FGC [3].

However, no empirical research to date has confirmed or refuted this claim. Therefore, it remains unclear how the medicalization of FGC relates to changes in the prevalence of the practice [3, 89]. Thus far, only one study by Shell-Duncan et al. [4] has explored the association between medicalization and prevalence. By comparing national percentages of both practices across 25 African countries, the study found that the prevalence of medicalization did not relate to a decline in the prevalence of FGC and that the trend towards medicalization did not necessarily go hand in hand with the continuation of FGC [4]. However, these results were descriptive, comparing nationally accumulated trends without controlling for context, with the researchers themselves recommending more comprehensive longitudinal multivariate analyses.

The current study responds to this call by expanding the research through an in-depth analysis of the Egyptian Demographic Health Survey (EDHS) [156] to investigate the association between regional and time-varying trends for FGC medicalization and a mother’s decision to cut her daughter.

The medicalization of FGC in Egypt.

In Egypt, the main forms of FGC performed are type I (partial or total removal of the clitoris and/or the prepuce) or type II (partial or total removal of the clitoris and labia minora, with or without excision of the labia majora) [205]. The procedure is usually performed around the age of 9-10 [178]. The most commonly cited reasons for continuing the practice are tradition,

religion, and its association with marriage [24, 205]. According to the EDHS from 2014, 91% of women who have ever been married have been cut [4, 11, 127]. While prevalence percentages have decreased in more recent birth cohorts, within the group of girls that are cut, the procedure is increasingly performed by a medical professional rather than a traditional circumciser [3, 89]. Egypt has particularly high medicalization percentages of FGC, with more than half of all medicalized cuts worldwide performed in the country [4]. In the majority of these cases in Egypt, the cut is performed by a medical doctor within a hospital or a private clinic [89, 154].

Egyptian mothers typically bear primary responsibility for making decisions about their daughter's cut [55, 56]. They play an important role in maintaining the practice, as their social position is linked to their roles as wives and mothers [11]. By safeguarding their daughters' social position and marriageability through FGC, they also secure their own social position [26]. Mothers with a higher social position are, however, less likely to have their daughters cut, because they have more alternative sources of empowerment available to them – and thus attain a certain social position – which decreases the incentives for FGC [25, 29, 42]. The social position of the mother has also been found to be related to the medicalization trend in Egypt, with women who occupy a higher social position more likely to opt for a medicalized cut [127]. This was explained by the finding that these mothers more often live in urban areas and have the financial resources and knowledge, which enables them to find their way to the medical health system [29, 42].

The legal context of the medicalization of FGC in Egypt is specific [11]. In 1994, the Egyptian government gave its consent to health personnel performing FGC, intending to reduce the health hazards related to the practice in a context where it was perceived as inevitable [11, 71]. In 1995, after opposition from women's rights groups and health advocates, and the death of a girl in a hospital during an FGC procedure [70], this policy was revised. FGC was subsequently banned in all hospitals, except 'when medically necessary'. The prerequisite of medical necessity functioned as a loophole until a ministerial decree in 2007 was enforced, which 'prohibited nurses or physicians from performing any cut or modification to any natural part of the female genital reproduction system, whether this occurred in public or private hospitals or other places' [6, 11, 70]. Today, FGC is banned for all practitioners, at all locations, and it is criminalized in the penal code [205].

How increasing medicalization percentages may increase a girl's risk of being cut

Strong opposition to the medicalization of FGC rests on the assumption that medicalization will counteract efforts to eliminate FGC, and thus increase a girl's risk of being cut. Several pathways can be identified to explain this assumption.

First, the medicalization of FGC may create the perception that it eliminates or at least reduces the negative health consequences of the practice and, as a result, may make it appear less harmful. Previous research indeed shows that members of practicing communities have increasingly turned to health professionals to perform the procedure in order to reduce the risk of various complications [1]. This is possibly a result of the widely used health approach of anti-FGC campaigns, which emphasize the adverse health consequences of the practice, assuming that this would help raise awareness of the risks and, in turn, motivate people to abandon the practice [82]. The health approach seemed to encourage increases in medicalization rather than decreases in the practice as a whole. Therefore, recent campaigns have shifted from this health approach to the human rights approach [71, 90]. The harm-reduction argument is also used by health professionals, who argue that they are helping to prevent greater risks when the procedure is carried out by traditional practitioners [115]. Health professionals consider that harm is reduced because medicalized FGC is performed in more hygienic conditions [120, 121], and pain is also reduced [120].

In a similar manner, this strategy was applied by the Egyptian government during the period when FGC was permitted by law if performed by a health professional [6]. The government decided on a standard operating procedure, allowing only medical personnel to conduct FGC safely and hygienically, and only for girls whose parents had requested it. This policy was thus introduced as a harm-reduction strategy – attempting to reduce the harm of a practice that was seen as inevitable. While the implementation of this law had little effect on the reduction of FGC, it may have encouraged its medicalization [4, 90, 206].

A relevant side note to be made when discussing medicalization as a form of harm-reduction is that the idea of trained health professionals performing 'less harmful' forms of FGC is based on ungrounded assumptions. Medicalized FGC has no health benefit, as it does not reduce the long-term health consequences of FGC and has no medical justification [7]. Yount [122] even points out that for FGC types I or II, there is no difference in risk of infertility or birth complications when FGC is performed by a trained health professional compared to a traditional

practitioner. Other research shows that many health-care providers have inadequate knowledge about the health risks associated with FGC [115, 120]. While more research is needed on how medicalization affects the health consequences of FGC, practicing communities may nonetheless perceive medicalized FGC as less harmful, and therefore medicalization may reduce incentives to abandon the practice as a whole.

Second, medicalized FGC might provide benefits to health professionals themselves. Research shows that one of the primary reasons for health professionals to perform FGC is the opportunity for financial gain. Medicalized FGC is often mentioned as a complementary source of income for health professionals and as an incentive to practice medicalized FGC [3, 10, 115], despite the practice being against the imperative medical Hippocratic oath to 'do no harm' [3]. Therefore, medical professionals may, in fact, become one of the drivers of the medicalization of FGC.

Third, because health-care professionals are involved, this may additionally legitimize the practice. Health professionals often have a certain status in the community, and some may see them as role models. If health professionals favour FGC and even advocate it, this might run counter to the fight for its abandonment. Previous research in Egypt has shown that mothers consult health professionals specifically to ask for advice about whether their daughter should be cut, and thus seem to have high levels of trust in doctors when making this decision [55]. Thus, it is argued that the latter's involvement and perceived approval of the practice could contribute to the institutionalization of FGC, rendering it a routine medical procedure and creating the impression that the procedure may be good for health [3]. Women, particularly those with a higher social position, may actively seek the medicalized intervention because it may function as a signifier of a woman's social position as a 'modern' mother [127, 207, 208]. Medicalization might function as a marker of a woman's socioeconomic position and thus contribute to their social position [121, 127]. This may also explain why the medicalized practice has spread into cultural groups that previously did not practice it [3].

Based on these pathways, we can expect that as medicalization percentages increase, the risk of girls being cut will also increase (Hypothesis 1).

Why increasing medicalization may decrease a girl's risk of being cut

The speculation that medicalization counteracts the abandonment of FGC has been challenged by several previous studies demonstrating that medicalization and declining FGC prevalence percentages can occur in parallel [4, 105-107]. Here, we consider arguments that increasing medicalization might decrease a girl's risk of being cut.

First, medicalization might be approached as an opportunity to encourage FGC abandonment. The main argument of those who claim medicalization does not legitimize FGC is that the practice is already seen as legitimate by its proponents, regardless of who performs it [209]. In this regard, we might ask whether allowing the practice to be managed by or through health professionals might turn medicalization into an opportunity to encourage the abandonment of FGC. If health professionals become the primary contact persons regarding decisions on FGC [55], this could be used as an opportunity to provide correct information on the consequences of FGC and on the benefits of abandoning the practice [3]. Previous research in Egypt has shown that mothers who intend to consult a doctor usually seek guidance regarding the question of whether their daughter should be cut, and whether it is medically recommended for their daughter [55]. While the mothers reported that some doctors advised them to have the procedure and others advised against it, the findings also showed that if doctors were to consistently inform mothers about the negative consequences of FGC and advise families not to perform it on their daughters, they could have a large impact in the fight against FGC [55, 210]. Moreover, the mothers reported that they would advise each other to follow a doctor's advice rather than their husband's preference, which further increases the doctors' influence. Thus, by encouraging health professionals to support the abandonment of FGC and refrain from performing it – which is a challenge on its own [211] – they would more consistently advise against it, and possibly also contribute to a more local debate and increased questioning of the practice by communities [14, 212].

Moreover, medicalized FGC might also decrease the visibility of the practice as, in most cases, medicalization is accompanied by improved hygienic conditions in which FGC takes place and a reduction in the amount of cutting, meaning there are less immediately visible health consequences [4, 6]. In addition, when a trained health professional performs FGC, it is less likely to be accompanied by a social event or a rite of passage [109, 213]. Thus, medicalized FGC would tend to become solely a physical procedure, unaccompanied by the transmission of cultural

knowledge or a community celebration. These changes might make FGC a less visible and more individualized practice. As a consequence, it is argued that the FGC status of the daughter will have less of an effect on the social position of the girl's family and may, therefore, also become less subject to social control by the broader community. This might make it 'easier' for women to give up the FGC tradition. Previous research and experience show that vanishing social norms and the ability to opt-out of FGC without the risk of stigmatization or social exclusion is key to FGC abandonment [11, 82].

Based on these pathways, we can expect that as medicalization percentages increase, the risk of girls being cut will decrease (Hypothesis 2).

5.1.3. Data and Methods

Data

This study used data from the fourth, fifth, and sixth waves of the Egypt Demographic and Health Survey (EDHS), conducted in 2005, 2008, and 2014, respectively. The EDHS surveys collected information on a nationally representative sample of women aged 15 to 49 years. Data were collected using a multi-stage cluster sampling design, and strata for rural and urban areas and the 33 Egyptian governorates. A standardized questionnaire was administered during a face-to-face interview. This questionnaire included questions on FGC of the respondent herself, as well as all her living daughters aged 19 years old or younger in the 2014 wave, and aged 17 or younger in the 2008 and 2005 waves. Further detailed information on the sampling, data collection, and questionnaire is available in the EDHS reports [214].

In our sample, we included mothers who had at least one living daughter younger than 13 years of age (in Egypt, the vast majority of girls who are cut have the procedure by the age of 13; 96.7%). If a mother had more than one daughter within this age range, she was included multiple times in the sample. After the deletion of missing cases on the independent variables of interest (N = 2,993; 6%), the final sample contained 49,273 daughters clustered within 29,810 mothers. In our analysis, information on women's social position relates to that of the mother, while the outcome variable refers to her daughter's FGC status. The summary statistics for the variables included are provided in Table A in the appendix.

Variables

Dependent variable. The risk of being cut was measured through a binary variable that distinguished between daughters who were not cut (= reference category) and daughters who were cut. This information was obtained from the FGC module in the EDHS, which starts with the introductory sentence: 'Now I would like to talk about the practice of female circumcision', followed by several FGC-related questions, including; 'Is [name] circumcised' for each daughter aged 0-17 in the 2005 and 2008 waves, and aged 0-19 in the 2014 wave. In our analyses, daughters were followed-up from birth until either (i) the year that the genital cut occurred, or (ii) censoring at the age of 13 or (iii) the end of the observation window of the respective EDHS wave. Daughters with an unknown FGC status were excluded from the analysis.

Regional medicalization percentages. In order to estimate changes in medicalization percentages over time, we estimated annual governorate proportions of cuts that were medicalized by calculating the total number of girls who were cut in a certain year as the denominator, and the number of medicalized procedures in the same year as the numerator. Medicalized procedures were defined in line with the WHO definition (2010) as procedures performed by a medical health professional (EDHS values: doctor, nurse, or other health providers), while procedures that were performed by traditional practitioners (DHS values: daya, barber, ghagaria) were identified as non-medicalized procedures. In order to obtain a more stable estimate, we not only included mothers and daughters in this calculation, but all other eligible women in the household [footnote: E.g., a 30-year-old mother in the 2014 wave who was cut in 1995 at the age of 11 was also included in the corresponding year, while her 11-year-old daughter who was cut in 2003 was included in that year]. Using this information, we estimated the percentages of medicalized versus all cuts for each year. Since decision-making concerning FGC is influenced by social norms that may be present well before the moment at which the actual genital cutting takes place [215], we introduced a five-year time lag. Shorter time lags provided similar results but had a worse model fit. The medicalization percentages were thus calculated between five years before the earliest included daughter's birth year (1982) and five years before the last year of data collection (2009). These percentages were rescaled as a 10% point increase rather than a 1% point increase in order to make the scope of our effect easier to interpret.

In addition, these annual percentages were estimated separately for each Egyptian governorate. The governorates of North Sinai, South Sinai, Matroh, and Suez were, however, excluded from the analysis, as there were insufficient respondents over the three EDHS waves. An additional robustness analysis with estimated annual medicalization percentages at the national and the regional levels (urban lower Egypt, rural lower Egypt, urban upper Egypt, rural upper Egypt, and frontier governorates) provided similar results. We chose to conduct the analysis at the governorate level because it was the smallest regional unit available and would thus give the most conservative estimates of the effect of medicalization.

Covariates. Given the strong association between the social position of the mother and the medicalization of FGC within the Egyptian context [11, 127], we controlled for indicators of the mother's social position both outside and within the household, as well as her attitudes towards domestic violence. These aspects of women's social position were found to be of particular relevance within the Egyptian context [131]. Women's social position outside the household was measured by employment status, level of education, and household wealth. Employment status concerned whether a woman was working at the time of the survey or not. The educational level variable distinguished between women who had no education, who had completed primary education, who had completed secondary education, and those who were higher educated. The original household wealth EDHS variable divided the respondents into five wealth quintiles, but for the current analysis, we merged the wealthiest two quintiles into one category to ensure a sufficient number of respondents in each group. The household variables thus had four categories: poorest, poorer, middle, and richer.

Women's social position within the household was captured with three variables: the mother's age when she gave birth for the first time, her spousal age difference (calculated by subtracting the husband's age from the wife's age) and her decision-making autonomy in household matters. Mother's influence in decision-making in the household was captured through three items: whether she had a shared or final say in decisions concerning her health-care, large household purchases, and visits to family or relatives. The original items had a value of two if the respondent indicated having full decision-making power, one in the case of a shared say with her partner or others, and zero if the respondent had no decision-making power. However, since previous research shows that both shared and full decision-making reflect a certain level of power of women in this respect, we recoded the variable into a dummy, having a value of zero if the mother had no decision-making power and one if she had shared or full

decision-making power. The scale consists of the sum of these recoded item variables divided by three (Cronbach's alpha, 0.68). It ranges from zero to one, with higher scores indicating more household decision autonomy.

The final important measure of women's social position concerns her views on gender, measured using questions on attitudes about domestic violence. Women gave their opinion on whether a husband is 'justified in hitting or beating his wife' if she neglects the children, argues with him, burns the food, or refuses to have sex with him. We constructed a reliable scale (Cronbach's alpha, 0.8) by adding up the number of 'yes' responses to the four dichotomous gender violence attitude items and dividing by four: higher scores indicated more tolerance of wife-beating, which implies more traditional gender views.

Our analyses were additionally controlled for changes in FGC prevalence, which was again estimated per year within each governorate. We estimated these percentages using the sample of girls between 13 and 19 years old within each specific year. This age group was selected as: (i) there is no overlap with the population at risk of being cut, and (ii) this is the age range around which girls are being prepared to enter the marriage market. Therefore, this age group may function as the social reference group at the moment that the mother makes a decision concerning her daughter's cut.

We also controlled for mother's religion (Muslim or Christian), her own FGC status, and whether she lived in an urban or rural area. Finally, we controlled whether the daughter's cut took place before or after the 2007 change in legislation concerning the medicalization of FGC. After 2007, all practitioners, including health professionals, were prohibited by law from performing FGC. We took 2008 as the cut-off point in the analysis as the law was well enforced from the start of that year.

Methods

First, we described the percentage of girls that received a medicalized cut over the total number of girls that were cut (Figure 9). These percentages were calculated for each year and each governorate, thus allowing us to examine how the medicalization percentage increased over time within each governorate. The percentage distribution, depicted in Figure 10, additionally allows us to examine time trends in the prevalence of FGC, as it shows the proportion of girls that were cut over the total number of girls within the same age range of 13-19 years.

Subsequently, we applied a discrete-time event-history regression model analysis combined with governorate fixed effects. This allowed us to estimate how changes in the medicalization percentages within each specific governorate relate to a girl's risk of being cut, while simultaneously controlling for the relevant covariates. The age of the daughter was selected as the baseline exposure variable, which was included as 13 dummies (ages zero up to 12). Estimates are reported in Table B in the appendix. More parsimonious specifications were tested, but none proved to be an improvement over the completely general model. Robust standard errors were applied to control for the clustering of daughters within the same mother. Governorates were also included as separate dummies, which controlled for any unobserved time-constant effects at the governorate level. All analyses were performed using the Stata SE software package [196].

The outcome variable of the analysis was the yearly risk of being cut for all daughters up to the maximum observed age, until 12 years old, or the age they were cut. Because we applied a logit link function, the hazard ratios (H.R.) shown in Table 2 can be interpreted as odds ratios. If the coefficient of the regional medicalization variable is above one, this implies that with every unit increase in the medicalization percentage, the risk of being cut also increased, thus providing evidence for Hypothesis 1. If the coefficient is below one, this implies that with every unit increase in the medicalization percentage, the risk of being cut decreased, thus providing evidence for Hypothesis 2. A squared effect of the level of regional medicalization percentages was added to the model to estimate whether its relationship with the risk of being cut was, in fact, curvilinear. Given the strong association between the social position of the mother and her daughter's risk of being cut, we also included an interaction effect between the regional medicalization percentage and the mother's level of education (which serves as a proxy for her social position). The results of this interaction term are discussed in the text and presented in Table C in the appendix. In order to facilitate the interpretation of the effect of the regional medicalization percentage on our outcomes, the predictive margins for an average 12-year-old girl by the regional medicalization percentage was plotted in Figure 11.

As a sensitivity analysis, we estimated the same model with a random effect for the governorate level. Contrary to fixed effects models, mixed models use within-group and between-group variation. The effect of medicalization was similar, but a little stronger compared to the fixed-effects models. This was expected, as fixed effects models present a more conservative effect because they only use within-group variation. However, most variation was

situated within governorates over time and not between regions. Therefore, the results of the two models were very similar.

5.1.4. Results

Trends in the medicalization and prevalence of FGC

As Figure 9 shows, medicalization percentages increased substantially over time. While we observed some variation between regions, most variation was observed over time, with medicalization percentages increasing within all regions.

At the same time, Figure 10 depicts a continuous decline in FGC prevalence for girls aged 13-19 years old. In 1987, more than 90% of all girls were cut in the vast majority of regions. In certain regions, this percentage had decreased to 85% by 2000, and even to as low as 16% by 2014. In other regions, this decline was, however, much less pronounced, with prevalence percentages still as high as 98% in 2000. Thus, although we established a steady downward trend in the prevalence of FGC, in certain regions, this prevalence remained high, with the vast majority of girls still undergoing FGC. The variation across regions increased over time, which shows the importance of controlling for regional differences. Moreover, this graph shows the importance of including FGC prevalence as a period variable in the analysis, as we see a decreasing trend in FGC prevalence percentages alongside an increasing trend in medicalization percentages.

Figure 9. Percentages of medicalized cuts over all cuts by calendar year and region based on the EDHS 2005, 2008, and 2014 waves

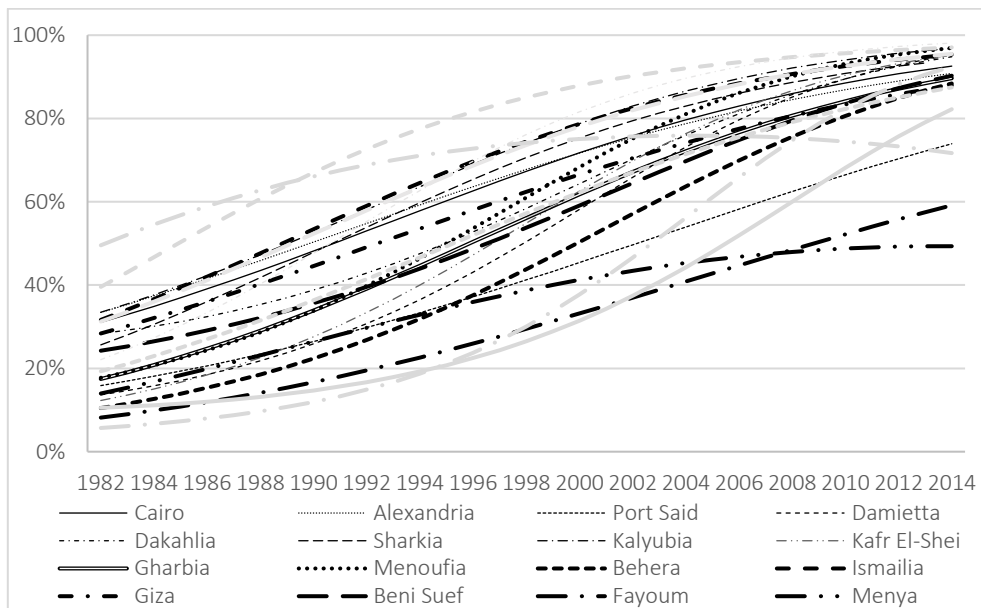
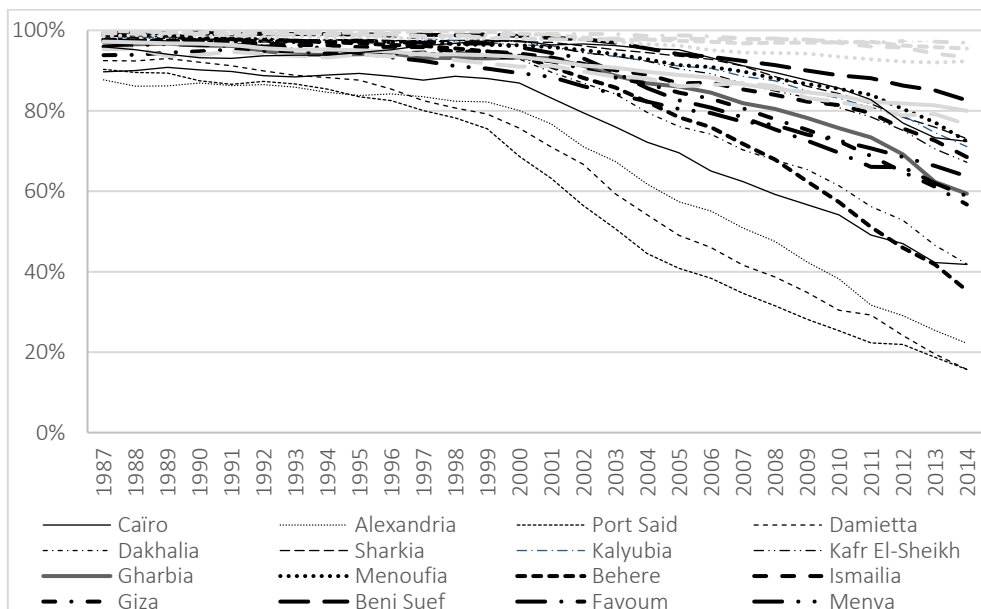


Figure 10. Percentages of cut girls over all girls between the ages of 13-19 by calendar year and region based on the EDHS 2005, 2008, and 2014 waves



How is the regional medicalization percentage associated with a girl's risk of being cut?

The results presented in Table 2 show that the relationship between the regional medicalization percentage and a girl's risk of being cut is not linear. This is established through the presence of a significant effect of the *squared term* of the regional medicalization percentage but not of the *main effect* of the regional medicalization percentage. In other words, when regional medicalization percentages are low, they do not have a significant effect on the risk of FGC. However, as these medicalization percentages increased, the risk of FGC significantly decreased.

To examine how the probability of FGC changed over different levels of medicalization percentages, we plotted the predictive margins for an average 12-year-old girl (see Figure 11). When the regional medicalization percentage is at 30%, the probability of an average 12-year-old girl being cut is estimated at 0.4. This probability is similar in regions with even lower medicalization percentages. However, from 40% onwards, the probability of being cut significantly decreases, and becomes even more prevalent, the higher the levels of regional medicalization percentages become.

Interaction between the mother's level of education and the regional interaction rate (see Table A in the appendix) showed that the negative effect of the regional medicalization rate was stronger for women who received some education (H.R._{primary education}: 0.99, 95%C.I.: 0.98-0.99; H.R._{secondary education}: 0.99, 95%C.I.: 0.98-0.99; H.R._{higher education}: 0.98, 95%C.I.: 0.97-0.99), compared to those who did not receive any education at all.

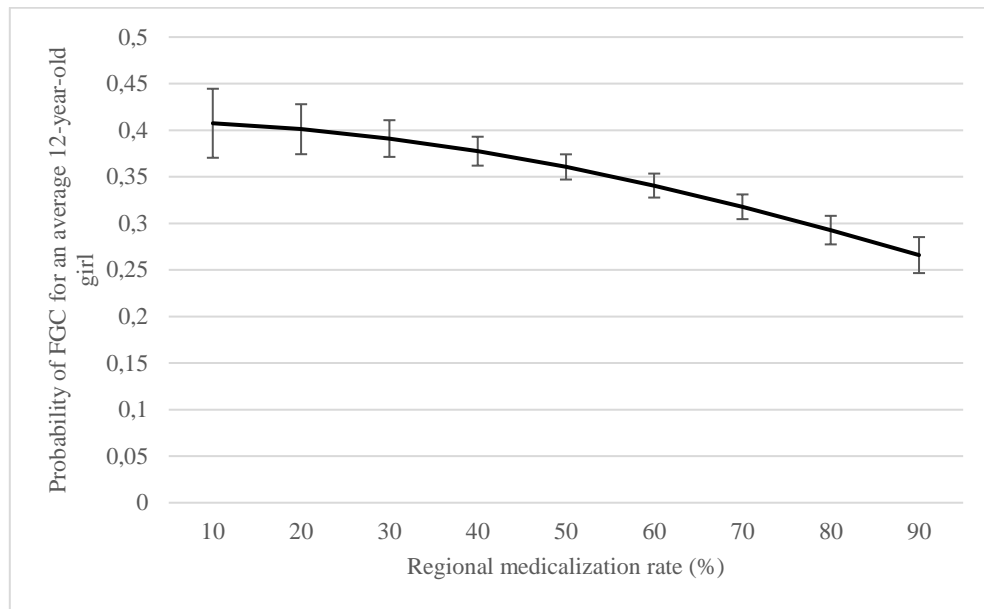
Table 2. Hazard ratios (H.R.) and 95% confidence intervals (C.I.) from discrete-time hazard models assessing the association between a girl's risk of being cut, regional medicalization percentages and covariates (EDHS 2005, 2008, 2014, N = 49,273 daughters clustered within 29,810 mothers)

	H.R.	95% C.I.		Sign.
Regional medicalization percentage				
Regional medicalization percentage (5y lag)	0.996	0.927	1.069	
Squared term of regional medicalization percentage	0.989	0.984	0.995	***
Covariates				
Regional FGC prevalence rate (13-19 year olds)	1.032	1.028	1.036	***
Working (ref. not working)	0.922	0.873	0.972	**
Highest educational level (ref. no education)				
Primary education	0.923	0.875	0.974	**
Secondary education	0.795	0.755	0.837	***
Higher education	0.441	0.392	0.496	***
Household wealth (ref. poorest)				
Poorer	1.045	0.992	1.100	
Middle	1.096	1.033	1.163	**
Richer	0.824	0.767	0.885	***
Age at first birth	0.991	0.985	0.997	**
Age difference spouses	1.004	1.000	1.007	*
Household decision-making power	0.963	0.910	1.020	
Gender violence attitudes	1.078	1.020	1.140	**
Christian (ref. Muslim)	0.334	0.298	0.374	***
Mother was cut (ref. not cut)	10.408	7.261	14.92	***
Rural residence area (ref. urban)	1.280	1.211	1.353	***
FGC after law change (ref. before)	0.813	0.758	0.873	***

Note: Estimates controlled for age of daughter, which was included as baseline exposure variable

*p < 0.050 ** p < 0.010 *** p < 0.001 (two-sided)

Figure 11. Predictive margins and 95% confidence intervals for the risk of FGC for an average 12-year-old girl by different levels of regional medicalization percentages



The association between the risk of FGC and the covariates also revealed a number of interesting patterns. First, our regional prevalence rate indicator revealed that in regions where the overall levels of FGC were decreasing, the risk of a girl being cut also decreased. In line with previous research, we additionally found that the social position of the mother – both within and outside her household – was related to her daughter’s risk of being cut. A girl’s risk of FGC was lower when her mother had higher levels of education, was employed or lived in a middle income or higher income household. Regarding the social position of the mother within the household, we found that mothers who were older at first birth or had a smaller age difference with their spouse were less likely to have their daughter cut. Moreover, mothers who held more tolerant attitudes towards domestic violence were more likely to have their daughter cut. Decision-making power within the household was, however, not significantly associated with the risk of FGC.

Finally, the risk of FGC was lower when the mother was Christian rather than Muslim, and when she lived in an urban, compared to a rural, area. We also observed that the risk of being cut was significantly lower after the law on medicalization changed. When the mother was not cut herself, the risk of FGC was significantly lower in the daughter as well. Since this last effect was very strong, we also performed a stratified analysis, with our models run separately on the

subset of mothers who were cut and mothers who were not cut. While all our previous conclusions remained valid for the former group, the results changed for the latter: the risk of FGC was very unlikely when the mother herself was not cut, and almost none of the independent variables had a significant effect.

5.1.5. Discussion and Conclusion

Anti-medicalization policies and campaigns are based on the assumption that medicalization counteracts the abandonment of FGC [6]. This speculation is based on the apparent combination of a slow decrease in FGC prevalence and a rapid increase in the medicalization of FGC. In this study, we conducted an in-depth analysis of the association between the increasing medicalization trend and a girl's risk of being cut. Our study offers two main contributions to the literature.

First, we found that the prevalence of FGC is rapidly decreasing in the Egyptian context. In contrast to the vast majority of the evidence available on decreasing FGC prevalence rates, we focused on trends in the age group of 13-19 years, rather than all women aged 15-49 years. By focusing on this younger age group, we found that FGC prevalence percentages are actually decreasing rather quickly in various regions, especially from 2000 onwards. While, in 2000, approximately 80-100% of girls aged 13-19 were cut in all regions, this decreased in some regions to as low as 16% in 2014. In addition, our results showed that decreasing FGC prevalence percentages occurred at the same time as increasing FGC medicalization percentages. Within the group of girls that were cut in 2000, around 60% (between 30 and 90%) were cut by a medical health professional, while, in 2014, this percentage had increased to up to approximately 90% for almost all regions.

Second, we found that the association between regional medicalization trends and a girl's risk of being cut was curvilinear. Increasing medicalization percentages accompanied the decreasing risk of FGC; however, this only occurred when the relative proportion of girls that were cut by a medical professional was sufficiently high. While a girl's risk of being cut decreased as regional medicalization percentages increased, this association only became significant when an estimated 40% of girls within the reference group were cut by a medical professional. This effect became even more pronounced with higher levels of medicalization. Rather than confirming the assumption that medicalization functions as a means to legitimize and sustain

FGC, we found that increasing levels of medicalization occur in parallel with a reduction in FGC prevalence, thus providing evidence for our second hypothesis.

Our findings might indicate that medicalization, when sufficiently high and thus visible, coincides with rising awareness of the potential risks of FGC, which in turn leads to decreasing FGC prevalence. The increase in medicalization could itself be an indicator of increasing risk awareness, which is, in turn, the reason behind abandonment. This is reflected in the significant interaction between the educational attainment of the mother and medicalization. Educated women are often among the first to become aware of the potential risks of FGC and to be in a position to decide not to cut their daughters [29, 44]. We also observed that the risk of being cut was significantly lower after the law on medicalization changed. This change in legislation could have functioned as an additional signal that medicalized FGC is not harmless, and that FGC is not a legitimate practice.

If medicalization indeed accompanies increased knowledge of the health risks of FGC, mothers may use it as a harm-reduction strategy. However, our results suggest that this harm-reduction strategy did not lead to legitimization that conserves the practice of FGC. Medicalization appears to act as a step towards FGC abandonment, which could present an opportunity in the fight against FGC. However, it is essential to consider the role of health professionals within this argument. The involvement and engagement of health-care providers in this fight are crucial to turning medicalization into an anti-FGC opportunity. If health professionals are motivated to continue the practice because FGC provides an additional source of income, or they value FGC as a traditional practice, it will be challenging to take advantage of medicalized FGC as a step towards FGC abandonment. Health professionals should act as providers of correct information about FGC health risks and become agents of change. However, training and convincing health professionals to do so is a challenge of its own.

Medicalization may also make FGC a less visible and thus more individual practice. As FGC becomes a mere physical procedure which is not visible or discussed in the community, it will have less importance to the social position of the mother and her daughter. Previous research has shown that parents feel they have to conform to social norms regarding FGC in order to ensure their daughters' social position [45]. However, if conforming to social norms is no longer visible and thus less subject to social control, it might be easier to abandon the practice.

Moreover, in line with previous research, we found that certain aspects of the social position of the mother are important factors in a girl's risk of being cut. This risk was significantly lower if her mother had a higher social position. Higher educated women were even less likely to have their daughter cut in a context where a medical professional performed the procedure on the majority of girls. In particular, mothers who were not cut themselves were unlikely to cut their daughters, irrespective of their own social position and regional medicalization percentages.

Our results should be interpreted in the light of a number of limitations. First, our analyses do not permit conclusions about causality. While our results show that an increasing medicalization trend can coexist with decreasing FGC prevalence, we were not able to determine whether there is a direct effect of this medicalization trend. Moreover, we were unable to estimate whether and how prevalence trends would have proceeded in the absence of this medicalization trend. Second, as FGC is a sensitive topic, particularly in a context where it is prohibited by law, our main outcome might be biased by underreporting. However, EDHS guidelines for interviewing respondents state that interviewers must attempt to find a space that is private and to take necessary measures to ensure that the respondent feels safe and answers honestly. Third, our study only focused on Egypt. Therefore, our results cannot be generalized to other countries where the medicalization of FGC is also occurring (Kenya, Yemen, Iraq, Djibouti, Guinea, and Sudan [4]). Finally, we observed significant variation in a girl's risk of being cut depending on the Egyptian governorates. Future research should examine how this sub-national variation in the association between the medicalization trend and a girl's risk of being cut might be explained.

Taking these limitations into account, our study nevertheless provides evidence that FGC prevalence is decreasing in the youngest age cohorts in Egypt, and that this decreasing trend coexists alongside an increase in the medicalization of the practice. This finding provides important empirical evidence in the light of the Sustainable Development Goal 5.3, 'Elimination of all harmful practices, including FGC, by 2030'.

5.1.6. Appendix to article 1

Table A – Summary statistics

	Freq. Person-years	Percentage	FGC rate
FGC status daughter			
Daughter not cut	405,682	96.390	
Daughter cut	15,186	3.610	
Regional medicalization percentage (5y lag)			
0-25	36,900	8.770	0.020
25-50	140,613	33.410	0.027
50-75	162,048	38.500	0.040
75-100	81,307	19.320	0.050
Regional FGC prevalence percentage (13-19 years)			
0-25	3,260	0.770	0.003
25-50	17,558	4.170	0.007
50-75	45,892	10.900	0.016
75-100	354,158	84.150	0.040
Employment status			
Not working	329,861	78.480	0.038
Working	90,425	21.520	0.029
Highest educational level			
No education	159,473	37.890	0.047
Primary education	62,684	14.890	0.043
Secondary education	162,549	38.620	0.028
Higher education	36,162	8.590	0.013
Household wealth			
Poorest	104,200	24.760	0.045
Poorer	87,141	20.710	0.045
Middle	76,759	18.240	0.039
Richer	152,768	36.300	0.023
Age at first birth			
8-18	126,342	30.020	0.045
19-20	91,688	21.790	0.038
21-23	110,183	26.180	0.034
24-45	92,655	22.020	0.026
Age difference spouses			
-69 to -10	116,594	27.700	0.041
-9 to -6	126,029	29.950	0.035
-5 to -3	102,570	24.370	0.033

-2 to 34	75,675	17.980	0.034
Household decision-making power			
No decision-making power	38,060	9.640	0.049
0.33	53,845	13.640	0.040
0.67	98,066	24.840	0.035
Total or shared decision-making power	204,811	51.880	0.032
Gender violence attitudes			
Beating never justified	257,322	61.220	0.030
0.33	60,130	14.310	0.042
0.67	51,105	12.160	0.048
Justified in all situations	51,746	12.310	0.045
Religion			
Muslim	401,472	95.470	0.037
Christian	19,067	4.530	0.023
FGC status mother			
No	15,373	3.650	0.002
Yes	405,243	96.350	0.037
Residence			
Urban	159,433	37.880	0.028
Rural	261,435	62.120	0.041
FGC after law change			
FGC before 2008	339,256	80.610	0.037
FGC after 2008	81,612	19.390	0.033
Governorates			
Cairo	25,559	6.070	0.021
Alexandria	18,045	4.290	0.015
Port Said	12,266	2.910	0.006
Damietta	14,469	3.440	0.006
Dakahlia	19,352	4.600	0.018
Sharkia	22,664	5.390	0.032
Kalyubia	18,498	4.400	0.037
Kafr El-Sheikh	16,133	3.830	0.032
Gharbia	18,093	4.300	0.029
Menoufia	16,603	3.940	0.036
Behera	20,917	4.970	0.018
Ismailia	12,776	3.040	0.033
Giza	22,715	5.400	0.028
Beni Suef	28,755	6.830	0.030
Fayoum	28,441	6.760	0.015

Menya	31,017	7.370	0.025
Assuit	22,113	5.250	0.052
Souhag	19,135	4.550	0.068
Qena	21,493	5.110	0.080
Aswan	16,154	3.840	0.112
Luxor	5,591	1.330	0.150
Red Sea	4,360	1.040	0.063
New Valley	5,719	1.360	0.045

Table B – Hazard ratios (H.R.) and 95% confidence intervals (C.I.) from discrete-time hazard models for baseline variable of age daughter (not reported in table 1) (EDHS 2005, 2008, 2014, (N: 49.273 daughters clustered within 29.810 mothers).

	Model with squared effect of the regional medicalization percentage				Model with squared effect of the regional medicalization percentage*mother's education			
	H.R.	95% C.I.			H.R.	95% C.I.		
Baseline - age daughter								
0	0.0000	0.0000	0.0001	***	0.0000	0.0000	0.0001	***
1	0.0000	0.0000	0.0001	***	0.0000	0.0000	0.0001	***
2	0.0000	0.0000	0.0001	***	0.0000	0.0000	0.0001	***
3	0.0001	0.0000	0.0001	***	0.0001	0.0000	0.0001	***
4	0.0001	0.0000	0.0002	***	0.0001	0.0000	0.0002	***
5	0.0002	0.0001	0.0004	***	0.0002	0.0001	0.0004	***
6	0.0003	0.0002	0.0006	***	0.0003	0.0002	0.0006	***
7	0.0004	0.0002	0.0008	***	0.0004	0.0002	0.0008	***
8	0.0007	0.0004	0.0013	***	0.0007	0.0004	0.0013	***
9	0.0016	0.0009	0.0029	***	0.0016	0.0009	0.0030	***
10	0.0056	0.0031	0.0103	***	0.0057	0.0031	0.0104	***
11	0.0052	0.0028	0.0094	***	0.0052	0.0029	0.0096	***
12	0.0090	0.0049	0.0164	***	0.0091	0.0050	0.0166	**

*p < 0.050 ** p < 0.010 *** p < 0.001 (two-sided)

Table C. Hazard ratios (H.R.) and 95% confidence intervals (C.I.) from discrete-time hazard models assessing the effect of the interaction between the mother's level of education and regional medicalization percentages on a girl's risk of being cut (EDHS 2005, 2008, 2014, N= 49,273 daughters clustered within 29,810 mothers)

	H.R.	95% C.I.		
Regional medicalization percentage	0.993	0.845	0.922	
Squared term of regional medicalization percentage	0.990	0.983	0.996	**
Education (ref. no education)				
Primary education	0.902	0.812	1.002	
Secondary education	0.771	0.696	0.853	***
Higher education	0.619	0.489	0.785	***
Squared term of regional medicalization rate * Education				
(No education)				
Primary	0.990	0.984	0.997	**
Secondary	0.990	0.984	0.996	**
Higher	0.982	0.975	0.990	***

Note: Analysis controlled for same covariates as analysis in Table 2.

*p < 0.050 ** p < 0.010 *** p < 0.001 (two-sided)

5.2. Article 2: The association between women's social position and the medicalization of female genital cutting in Egypt

Chapter based on the publication:

Nina Van Eekert, Els Leye & Sarah Van de Velde. (2018). The Association Between Women's Social Position and the Medicalization of Female Genital Cutting in Egypt. *International Perspectives on Sexual and Reproductive Health*, 44(3). Doi:10.1363/44e6618

5.2.1. Abstract

Medicalization of female genital cutting (i.e., having the procedure done by a medical professional) has increased in Egypt in recent years. The relationship between a woman's social position and the decision to use a trained health professional to perform genital cutting is not well understood.

Data from the 2005, 2008 and 2014 Egypt Demographic Health Surveys on 11,455 women whose daughter had undergone female genital cutting were used to examine relationships between mothers' social position and medicalization. Logistic regression models were used to identify associations between measures of social position and the decision to have genital cutting done by a trained provider.

Seventy-nine percent of women had their daughter cut by a trained health professional. The odds of medicalization were greater among women who had a primary education (odds ratio, 1.2) or a secondary or higher education (1.8) rather than no education; who lived in wealthier households rather than in the poorest ones (1.4–2.6); and who shared decision making on large household purchases rather than had no say in such decisions (1.2). In addition, working for pay and the magnitude of the age difference between women and their husband were negatively associated with medicalization (0.99 and 0.9, respectively).

A woman's social position in Egypt is associated with medicalization of her daughter's genital cutting. Research is needed to explore the social meaning attributed to medicalized genital cutting, which may inform campaigns that could decrease the prevalence of the procedure.

5.2.2. Introduction

Female genital cutting refers to procedures involving the partial or total removal of the external genitalia or other injuries to the female genital organs for nonmedical reasons [87]. The procedure has no known health benefits and, in fact, can lead to health complications—both short-term (such as infections and excessive bleeding) and long-term (such as negative obstetric outcomes, diminished sexual satisfaction and death) [216]. In addition, the procedure can be traumatic and cause mental health problems [87, 216]. For these reasons, international and national initiatives have attempted to convince people to abandon female genital cutting by focusing on the practice’s health consequences [4]. As a result of these initiatives, the prevalence of female genital cutting has, to varying degrees, decreased in recent years in almost all countries where the procedure is practiced. At the same time, female genital cutting has become increasingly medicalized in several countries, particularly in Egypt [4]; individuals might be using health care providers to perform the procedure in an attempt to reduce the risk of medical consequences [3].

The World Health Organization (WHO) defines medicalization of female genital cutting as “a situation in which FGC [female genital cutting] is practiced by any category of health-care provider, whether in a public or a private clinic, at home or elsewhere.”[3]. In this study, we examine the association between women’s social position⁴⁸ and medicalization of female genital cutting in Egypt. The focus on Egypt is particularly interesting for three reasons. First, Egypt has a high prevalence of female genital cutting: More than 90% of Egyptian women aged 15–49 have undergone the procedure [3]. Second, Egypt has one of the highest proportions in the world of female genital cutting procedures performed by medical personnel [89], and medicalization percentages have increased in recent birth cohorts: Egypt Demographic and Health Survey (EDHS) data indicate that in 2005, 55% of all daughters aged 17 or younger who had undergone female genital cutting had been cut by a trained health professional, while by 2014, 82% of all daughters 19 or younger who had undergone female genital cutting had been cut by a trained health professional [4, 178]. These medicalized cuts were mainly performed by doctors; in other African countries, they are generally done by midwives and nurses [55, 89] and often performed at home [44].

⁴⁸ We use the term “social position” to refer to whether women have material resources and to their ability to make choices within a gender stratified system

Third, Egypt is unique in having had a period (1994–2007) when female genital cutting was legal if performed by a health professional [6]. In 2007, a ministerial resolution banned all state-licensed health workers from performing female genital cutting, but did not impose penalties for doing so [217]. In 2008, female genital cutting was added to the penal code [217], and in 2016 the severity of the penalties was increased [23], although research shows that many health care providers continue to perform the practice [41]. Legal penalties have had little impact on the prevalence of female genital cutting in Egypt, because the practice is deeply embedded in religious tradition [11, 28].

While female genital cutting predates both Christianity and Islam, mothers and other community members often mention religion as a reason to perform the practice based on the common religious values of female virginity, premarital abstinence and chastity [28, 29]. Although female genital cutting is practiced among both Muslims and Coptic Christians in Egypt, the procedure has a higher prevalence in the Muslim community [25, 29, 50, 55]. Female genital cutting is strongly related to women’s social position in Egyptian society [28]. The social position that women occupy determines the alternatives they have regarding female genital cutting, as well as their ability to choose between these alternatives [39].

Women play an important part in maintaining the tradition of female genital cutting, as the practice is closely linked to their roles as wives and mothers [11]. Both male and female Egyptians perceive female genital cutting as a prerequisite for marriage [27, 218]. Female genital cutting is thought to raise a girl’s status to that of a woman, control her sexuality [28], eliminate her “maleness” and help her to conform to the aesthetic norm of female genitalia [218]. By safeguarding the social position and marriageability of their daughters via female genital cutting, women also secure their own social position. When women are less dependent on their husband and marriage, the role of female genital cutting as a prerequisite to their daughters’ marriage is less salient [25]. Compared with their peers, women who have alternative sources of empowerment—such as education or economic independence—may have less need to be guided by tradition and are less subject to social control, and therefore are less likely to have their daughters cut [25, 29].

Studies show that, in Egypt, women of higher social position—as measured by a variety of indicators—are more likely than women of lower social position to oppose female genital cutting, less likely to have their daughters cut or both [24, 25, 29, 44, 46, 47, 50, 154]. For

example, women who are educated, employed or live in wealthier households are more likely to oppose female genital cutting and less likely to have their daughters cut than women who are not educated, are unemployed or live in poorer households, respectively [24, 25, 29, 44, 46, 47, 50, 154]. Conversely, women are more likely to support female genital cutting and to have their daughters cut if they are married [47], especially if they married at a younger age [50], are much younger than their husband [50], have a greater number of children [25] underwent female genital cutting themselves [25, 29, 46, 55] are more tolerant of domestic violence [50, 219, 220] and do not participate in household decisions [46]. Studies have also identified a number of relevant control variables that increase the likelihood of women abandoning female genital cutting, such as living in an urban area [29, 44, 46, 154] and being exposed to female genital cutting–related media messages [50, 221].

In comparison with research on the prevalence of and attitudes toward female genital cutting, the literature on the association between women’s social position and the medicalization of the practice is less extensive [23, 24, 44, 55, 130]. We could, however, expect that women’s social position is positively associated with the medicalization of female genital cutting. Several factors may contribute to this association. First, access to medical institutions and resources differs among Egyptian women [222], and may be greater among women with higher social position. While data on the costs of nonmedicalized female genital cutting in Egypt are lacking, research from other countries generally shows that these cuts are less expensive [82, 121]. In addition to having greater ability to afford medical interventions, women who have more socioeconomic resources available to them may also have a stronger trust in and agreement with the aims of the health care system, more confidence in dealing with medical professionals and a greater ability to travel outside their communities than women with fewer socioeconomic resources [126]. Socially advantaged women are also more likely than other women to live in urban areas, where medical facilities tend to be concentrated [223]. Moreover, compared with less educated women, those with higher levels of education are more likely to have incorporated Western ideas about health and individual rights (through their schooling and exposure to the media) [82], and these women may opt for a medicalized version of female genital cutting to retain the social benefits related to the practice while simultaneously reducing some of its health hazards [6].

Most of the empirical studies on Egyptian women’s social position and the medicalization of female genital cutting have focused on women’s socioeconomic position. El-Gibaly and

colleagues found that daughters whose mother attained a higher level of education, who are from a higher socioeconomic household or who live in an urban region are more likely to undergo female genital cutting by a doctor than daughters whose mother attained a lower level of education, who are from a lower socioeconomic household or who live in a rural area [44]. Analyses of data from the 2014 Panel Survey of Young People in Egypt confirm these results [24, 130]. Yount found that a higher paternal level of education and living in an urban region are positively associated with medicalized female genital cutting as compared with a lower paternal level of education and living in a rural region, respectively [29]; the study did not find an association between a mother's level of education, her wealth or household wealth and the medicalization of the practice. Modrek and Sieverding found that women who work for pay are less likely than unemployed women to consult a doctor on whether to circumcise their daughters, while more educated women, Muslim women and women from wealthier households are more likely to consult a doctor than those who are less educated, not Muslim and from poorer households, respectively [55].

Second, we expect that the relationship between women's social position and the medicalization of female genital cutting is not restricted to their socioeconomic position. Because women's lives in Egypt are rooted in the domestic sphere, family and kinship are key factors in defining the parameters of their social position. Evidence from several studies suggests that women with more decision-making power and less tolerance of gender-based violence within the household also devote a greater proportion of resources to child-centered expenditures, even after adjustment for socioeconomic factors [132-135, 224-226]. Thus, women with greater power within their household may be more willing to pay for a medicalized cut and may negotiate with the health system more effectively than those with less power within their household. This may especially be the case when these women are more in favor of gender equality, making women with shared decision-making power within the household as likely to devote financial resources to their daughters as to their sons [227]. To date, only one study [29] has examined how women's position within the household is related to the medicalization of female genital cutting. The study found that the presence of the mother's relatives in the same community as hers is associated with an increased likelihood of medicalization. While the presence of relatives is not a direct measure of the power that women hold within their household, kinship allies may enhance women's ability to pursue their own choices [228].

Third, having one's daughter undergo female genital cutting with a medical provider may be perceived as "more modern" [121]. Although the literature on how medicalization of female genital cutting functions as a status symbol is scant, some relevant parallels can be found in the medicalization literature on cesarean section [128], infertility [229] and designer cosmetic surgery, such as vaginal rejuvenation [230]. In particular, the medicalization of the latter procedure has some parallels with the medicalization of female genital cutting, because both procedures are done to conform to social norms or sociocultural ideals about a woman's body and sexuality. These cases highlight how a medical procedure may serve as a status symbol, and how health risks become secondary to personal interests and social values [231].

We build upon and extend existing studies on the relationship between women's social position and the medicalization of female genital cutting in Egypt in several ways. First, our study uses data from the 2005, 2008 and 2014 rounds of the EDHS, whereas previous studies used older data [29, 130]. Moreover, our analysis includes a multivariate regression analysis that examines women's experiences with female genital cutting; previous studies included only bivariate regression analyses [24, 130] or focused on whether a mother intended to have her daughter cut [55]. Finally, in accordance with a growing consensus in the literature, we use a multidimensional approach to measuring women's social position [194]; the vast majority of studies on the association between women's social position and medicalization of female genital cutting have used a woman's socioeconomic status as a proxy for her overall social position [24, 29, 44, 130] an approach increasingly viewed as problematic [131].

We, therefore, include two additional dimensions of women's social position: women's social position within the household—assessed by measuring women's household decision-making power, the age difference between women and their spouse, and women's age at first birth— and women's views regarding gender equity (specifically, their attitudes toward gender-based violence). The selection of these indicators was based on current scholarship concerning the relationship between women's social position and female genital cutting, as well as available validated measures of women's social position in Egyptian society [131, 193]. While freedom of movement is another important dimension of women's social position in Egypt, we exclude this characteristic from our analyses because relevant information was collected in only a subsample of the EDHS, and its measure showed insufficient reliability. In addition, we do not construct an overarching scale of women's social position, but rather examine the unique relationship between each of the individual indicators and the medicalization of female genital cutting. This

decision was based on both statistical and substantive grounds: The constructive scale of these variables did not show proper levels of validity and reliability (results available upon request), and our study is exploratory in nature because the current literature on how the different dimensions of women's social position relate to the medicalization of female genital cutting is limited in scope. Overall, we expect that women who have higher socioeconomic status, who have a more powerful position within the household or who favor more equal gender norms will be more likely than other women to opt for medicalized female genital cutting.

5.2.3. Data and Methods

Sample

We used data from the 2005, 2008 and 2014 rounds of the EDHS, which employs a multistage cluster sampling design to collect information from a nationally representative sample of ever-married women aged 15–49. A standardized questionnaire was administered via face-to-face interview. In addition to asking about sociodemographic characteristics, fertility, contraceptive use and other topics typically included in demographic health surveys, the EDHS included questions about whether the respondent and all her living daughters younger than 20 had undergone genital cutting, as well as questions about who had performed the procedures. Detailed information on sampling, data collection and questionnaire is available in the relevant EDHS reports [189, 190].

In the current study, we restricted the sample to mothers with at least one daughter who had undergone female genital cutting. If a mother had multiple daughters who had been cut, we used the information related to the youngest daughter. The analytic sample consisted of 11,455 women.

Measures

Medicalization. On the basis of the question about who had performed the procedure, we differentiated between daughters whose female genital cutting had been performed by a medical professional and those who had been cut by a traditional practitioner. Medical professionals consisted of doctors, nurses and other health providers, whereas traditional practitioners included dayas (traditional midwives), barbers and others. This categorization aligns with WHO definitions [3].

Women's social position. Respondents' socioeconomic position was measured via their employment status, level of education and household wealth. The employment variable indicated whether a woman was currently working. The education measure distinguished between women with no education, those who had completed a primary education and those who had completed at least a secondary education. Household wealth was classified as one of four categories: poorest, poorer, middle and richer. The original EDHS variable divided the respondents into wealth quintiles, but for the current analysis, we merged the richest two categories to have a sufficient number of respondents in each group.

Women's social position within the household was captured via three variables: age at first birth, spousal age difference and decision-making autonomy in household decisions. Age at first birth and spousal age difference (calculated by subtracting the husband's age from the wife's age) were continuous variables measured in years. Household decision-making autonomy was measured with three items that assessed whether the respondent had a shared or final say in decisions concerning her own health care, large household purchases and visits to family or relatives. Responses were coded as 2 if the respondent made decisions on her own, 1 if she shared the decision making with her partner or others and 0 if she had no say at all. Because we could not make a reliable scale out of these items (Cronbach's alpha, 0.57), we included them in the analysis as separate ordinal variables. None of these items were collinear.

In accordance with Yount [131], traditional gender views were measured via questions on attitudes about domestic violence. Women gave their opinion on whether a husband is "justified in hitting or beating his wife" if she neglects the children, argues with him, burns the food or refuses to have sex with him. We constructed a reliable scale (Cronbach's alpha, 0.84) by summing the number of "yes" responses to the four dichotomous gender violence attitude items and dividing by four; higher scores indicate more tolerance of wife beating, which implies more traditional gender views [131].

Covariates. Our analyses adjusted for several potentially relevant variables, including the respondent's religion (Muslim or Christian), region of residence (urban governorate, urban Lower Egypt, rural Lower Egypt, urban Upper Egypt or frontier governorate), genital cutting status (whether she herself had been cut) and her age at the time her daughter was cut. We also adjusted for the daughter's year of birth, birth order and age at the time of genital cutting, as

well as whether she had been cut before 2007, when Egypt implemented its law against the medicalization of female genital cutting.

Three media use variables were derived from EDHS questions that asked women how often they read newspapers or magazines, listened to the radio and watched television; response options were not at all, less than once a week and at least once a week. Since it was not possible to make a reliable scale out of these variables (Cronbach's alpha, 0.45) and there was no multicollinearity (the variance inflation factor was <2), we included the items separately in the models.

Missing data. The prevalence of missing data was less than 5% for all variables, except those related to household decision-making autonomy. Missing values for these items were imputed using the multiple imputation method. Ten imputations were run using all mother-related variables included in the analysis and mother's age as predictors.

Statistical Analysis

We present descriptive statistics for the total sample, for women whose daughter was cut by a medical professional (medicalized group) and for those whose daughter was cut by a traditional practitioner (nonmedicalized group). Means are provided for the continuous variables, whereas percentages are provided for the categorical variables. Significance testing to identify differences between the two subgroups was performed using the F-test for continuous variables and Pearson's chi-square test for the categorical variables.

Next, we used logistic regression analysis to examine associations between the different dimensions of a woman's social position and the medicalization of her daughter's genital cutting. We present the results as odds ratios and 95% confidence intervals, with the nonmedicalized group serving as the reference group. All analyses used unweighted data and were performed using the statistical software SPSS 24.

5.2.4. Results

Participant Characteristics

Of the 11,455 women in the sample, 79% had their youngest daughter cut by a medical professional, and 21% by a traditional provider. On average, women were 20 years old at their

first birth and seven years younger than their husband (Table 3). The majority of respondents (57–81%) had at least some say in household decisions concerning their own health care, large household purchases or visits to family or relatives, although a sizeable proportion (43%) had no say in decisions about large household purchases. The mean score on the tolerance of domestic violence measure (0.3) indicates that, on average, respondents believed that a husband is justified in beating his wife in nearly a third of the specified circumstances. One-fifth of mothers were employed, and half had at least a primary education.

Respondents were fairly equally distributed across income groups. Nearly all women identified as Muslim (98%), and the largest proportions of respondents lived in rural Lower or rural Upper Egypt (34% and 37%, respectively). Only 7% of respondents read a newspaper or magazine at least once a week; the most commonly used media were radio and television (used at least weekly by 43% and 95% of respondents, respectively). On average, women were 34 years old when their youngest daughter had been cut, and the daughter was their third child. Nearly all women (99.7%) had been cut themselves.

Women in the medicalized group differed from those in the nonmedicalized groups in many respects. Notably, greater proportions of women in the medicalized group shared decision making with their partner or someone else: For example, 51% of women in the medicalized group reported sharing decision making about large household purchases, compared with only 40% in the nonmedicalized group. In addition, women in the medicalized group were less tolerant of domestic violence than those in the nonmedicalized group (mean score, 0.3 vs. 0.4), and greater proportions of women in the medicalized group had at least a secondary education (37% vs. 17%) and were in the wealthiest subgroup (30% vs. 13%). Half of the women in the nonmedicalized group, but only a third of their counterparts in the medicalized group, lived in rural Upper Egypt. Furthermore, greater proportions of women in the medicalized group reported using each of the three media types at least once a week (8–96% vs. 2–93%) and having had their daughter cut after the 2007 law banning state-licensed health workers from performing female genital cutting (29% vs. 23%). Finally, women in the medicalized group were, on average, half a year older than those in the nonmedicalized group at the time their daughter was cut.

Table 3. Selected characteristics of women whose daughter had undergone female genital cutting, Egypt Demographic and Health Survey, 2005, 2008 and 2014

Characteristics	All (N=11,455)		Nonmedicalized female genital cutting (N=2,386)		Medicalized female genital cutting (N=9,069)	
	N	% or mean	N	% or mean	N	% or mean
<i>Social Position</i>						
Mean age at first birth	10,857	20.14	2,247	19.42	8,610	20.33
Mean spousal age difference	10,857	-7.26	2,247	-7.19	8,610	-7.29
Decision making on own health care						
None	2,038	18.8	524	23.4	1,513	17.6***
Shared	6,176	56.9	1,140	50.8	5,036	58.5***
Full	2,636	24.3	580	25.8	2,056	23.9***
Decision making on large household purchases						
None	4,695	43.4	1,151	51.6	3,544	41.3***
Shared	5,271	48.7	903	40.4	4,361	50.8***
Full	863	8.0	179	8.0	683	7.9***
Decision making on visiting family/relatives						
None	2,717	25.1	631	28.2	2,085	24.3***
Shared	6,657	61.5	1,288	57.5	5,369	62.6***
Full	1,448	13.4	320	14.3	1,128	13.1***
Mean tolerance of domestic violence score	10,647	0.31	2,199	0.39	8,447	0.29***
Working						
No	8,696	80.2	1,824	81.2	6,872	79.9
Yes	2,148	19.8	422	18.8	1,726	20.1
Education level						
None	5,354	49.3	1,473	65.5	3,881	45.1***
Primary	1,963	18.1	398	17.7	1,565	18.2***
≥secondary	3,540	32.6	377	16.8	3,163	36.7***
Household wealth						
Poorest	3,024	27.9	952	42.3	2,072	24.1***
Poorer	2,696	24.8	601	26.7	2,095	24.3***
Middle	2,259	20.8	397	17.7	1,862	21.6***
Richer	2,879	26.5	298	13.3	2,581	30.0***

Other

Religion						
Muslim	10,577	97.5	2,173	96.8	8,404	97.7**
Christian	267	2.5	72	3.2	195	2.3**
Region						
Urban governorates	1,004	9.3	188	8.4	816	9.5***
Urban Lower Egypt	803	7.4	80	3.6	723	8.4***
Rural Lower Egypt	3,672	33.8	597	26.6	3,075	35.7***
Urban Upper Egypt	1,310	12.0	221	9.8	1,089	12.7***
Rural Upper Egypt	3,963	36.5	1,136	50.6	2,827	32.8***
Frontier governorates	104	1.0	25	1.1	79	0.9***
Frequency of reading newspaper/magazine						
Not at all	9,225	85.1	2,086	93.0	7,139	83.1***
<once a week	895	8.3	114	5.1	781	9.1***
≥once a week	717	6.6	44	2.2	673	7.8***
Frequency of listening to radio						
Not at all	5,249	48.4	1,140	50.8	4,109	47.8***
<once a week	949	8.7	223	9.9	726	8.4***
≥once a week	4,652	42.9	881	39.2	3,771	43.8***
Frequency of watching television						
Not at all	341	3.1	115	5.1	226	2.6***
<once a week	195	1.8	46	2.0	149	1.7***
≥once a week	10,312	95.1	2,082	92.8	8,230	95.7***
Mean age of mother when daughter was cut	10,752	34.4	2,212	34.0	8,540	34.5***
Mean birth order of daughter	10,857	3.1	2,247	3.5	8,606	3.0***
Mean birth year of daughter	10,857	1994.7	2,247	1994.2	8,610	1994.9***
Year of FGC						
Before 2007	7,731	93.9	1,705	77.1	6,025	70.6***
After 2007	506	6.1	506	22.9	2,514	29.4***
Mother's FGC status						
Not cut	32	0.3	10	0.4	22	0.3
Cut	10,819	99.7	2,235	99.6	8,584	99.7

p<0.005; *p<0.001. Notes: FGC=female genital cutting. "Daughter" refers to the mother's youngest cut daughter. All values are percentages unless otherwise indicated. Percentages may not add to 100.0 because of rounding.

Multivariate Analyses

In the multivariate analyses, several aspects of women's social position were associated with medicalized female genital cutting (Table 4). The greater the age difference between a woman and her spouse, the lower the likelihood that her daughter had been cut by a trained practitioner (odds ratio, 0.99 per year). Women who shared decision making on large household purchases were more likely than those who did not take part in such decision making to have had their daughter cut by a health professional (1.2). Mother's age at first birth and tolerance of domestic violence were not associated with medicalization of female genital cutting.

Moreover, all three socioeconomic measures were associated with medicalization. Women who reported being employed were less likely than those who reported not working for pay to have had their daughter cut by a health professional (odds ratio, 0.9). Compared with women with no education, women with a primary education and those with a secondary or higher education had greater odds of having had their daughter cut by a health professional (1.2 and 1.8, respectively). Similarly, compared with women in the poorest households, those in the three higher wealth categories were more likely to have opted for a medicalized cut (1.4–2.6).

In addition, several covariates were associated with medicalization of genital cutting. Women who reported to read the newspaper and/or magazine at least once a week were more likely to medicalize their daughter's cut than those who reported never doing so (odds ratio, 2.0). Furthermore, the odds of medicalization were greater among women who resided in urban or rural Lower Egypt (2.0 and 2.1, respectively), or in urban or rural Upper Egypt (1.4 and 1.3) than among those living in urban governorates. Finally, older age of the mother at the time their daughter was cut and birth year of the daughter were positively associated with medicalization (1.04 each), and daughter's birth order was negatively associated with the outcome (0.9).

Table 4. Odds ratios (and 95% confidence intervals) from logistic regression analysis examining associations between selected characteristics and medicalized genital cutting

Characteristic	Odds ratio (CI)
<i>Social position</i>	
Age at first birth	0.99 (0.96–1.01)
Spousal age difference	0.99 (0.98–0.99)**
Decision making on own health care	
None (ref)	
Shared	1.15 (0.98–1.36)
Full	1.11 (0.94–1.32)
Decision making on large household purchases	
None (ref)	
Shared	1.15 (1.00–1.32)*
Full	1.20 (0.96–1.50)
Decision making on visiting family/relatives	
None (ref)	
Shared	0.87 (0.75–1.01)
Full	0.91 (0.75–1.11)
Tolerance of domestic violence	0.89 (0.77–1.02)
Working	
No (ref)	
Yes	0.87 (0.77–0.99)*
Educational level	
None (ref)	
Primary	1.20 (1.05–1.37)**
Secondary or higher	1.79 (1.53–2.10)***
Household wealth	
Poorest (ref)	
Poorer	1.38 (1.21–1.57)***
Middle	1.64 (1.41–1.91)***
Richer	2.55 (2.10–3.09)***
<i>Other</i>	
Religion	
Muslim (ref)	
Christian	0.82 (0.61–1.10)
Frequency of reading newspaper/magazine	
Not at all (ref)	
Less than once a week	1.05 (0.83–1.32)

At least once a week	1.99 (1.42–2.79)***
Frequency of listening to radio	
Not at all (ref)	
Less than once a week	0.91 (0.76–1.08)
At least once a week	0.98 (0.87–1.11)
Frequency of watching television	
Not at all (ref)	
Less than once a week	1.45 (0.94–2.26)
At least once a week	1.21 (0.94–1.57)
Region	
Urban governorates (ref)	
Urban Lower Egypt	1.99 (1.49–2.68)***
Rural Lower Egypt	2.09 (1.69–2.59)***
Urban Upper Egypt	1.41 (1.12–1.78)**
Rural Upper Egypt	1.27 (1.02–1.57)*
Frontier governorates	0.96 (0.57–1.60)
Age of mother when daughter was cut	1.04 (1.03–1.06)***
Birth order of daughter	0.91 (0.87–0.95)***
Birth year of daughter	1.04 (1.02–1.06)***
Year of FGC	
Before 2007 (ref)	
After 2007	0.92 (0.77–1.10)
Mother's FGC status	
Cut (ref)	
Not cut	1.48 (0.62–13.54)

*p<0.05; **p<0.005; ***p<0.001. Notes: FGC=female genital cutting. "Daughter" refers to the mother's youngest cut daughter. ref=reference group.

5.2.5. Discussion and Conclusion

Using data from the EDHS, we confirm previous evidence of an association between women's socioeconomic position and medicalization of female genital cutting [44, 55, 130]. Mothers from wealthier households had more than twice the odds of having opted for a medicalized female genital cutting than those from poor households. The economic resources that wealthy women have may make medical institutions and resources more accessible for them, and enable them to afford the costs of the medical procedure [44, 96]. Education may also have an indirect effect: Because it empowers women (e.g., by increasing their ability to earn income, bargain for resources within the household, make decisions autonomously, control their fertility and participate in public life [232]), education equips them to benefit from existing services and opportunities to be accepted as a full and valuable member of Egyptian society. However, our results also show that employed women were less likely than their unemployed counterparts to medicalize their daughter's cut. This finding is consistent with the work of Modrek and Sieverding [55], who found that women who work for pay are less likely than unemployed women to consult a doctor on whether to have their daughter cut. Future research should examine why the relationship between women's employment and the medicalization of female genital cutting deviates from that of the other socioeconomic indicators.

Moreover, our results show that women's position within the household in Egypt is associated with the medicalization of female genital cutting. A greater age difference between spouses was associated with a reduced likelihood of medicalization. A large age gap at marriage often indicates that the wife has less power in the relationship than her husband does [233]. In addition, we found that women who shared decision making concerning large household purchases were more likely to opt for a medicalized cut for their daughter than women who had no say in these decisions. These findings are consistent with previous research that shows women in developing countries who have more decision-making power within the household devote a greater proportion of the resources to child-centered expenditures than women with less household decision-making power [234].

Our results are also consistent with the possibility that the costs related to the medical intervention of female genital cutting in Egypt are perceived to be similar to those of other large purchases, and that when women gain some decision-making power within this domain, their daughter is more likely to be cut by a medical professional. In Egyptian society, women with shared autonomy in decision making occupy a higher social position than women with full

autonomy in decision making [235]. Our finding that women with shared decision-making power—but not those with full decision-making power— are more likely than women with no decision-making autonomy to medicalize their daughter’s female genital cutting is therefore in line with our expectations. As we hypothesized, medicalization may act as a status symbol. If medicalization of female genital cutting is perceived as a luxury, it might function as marker of a woman’s socioeconomic position. The preference for a medicalized procedure among members of higher socio-economic groups has been found in other health-related domains [128, 229, 236]. Medicalization of female genital cutting may function as a signifier of a woman’s social position as a “modern mother” [207, 208]. Future research is warranted to examine the social meaning that is given to the medicalization of female genital cutting, and how it is related to the position that women occupy in the gender stratification system.

Limitations. Some limitations of our study are worth noting. Although the EDHS offers an outstanding opportunity to examine the medicalization of female genital cutting, some issues that are inherent in self-reports of a sensitive topic—such as selective nonresponses or provision of socially desirable answers—may not have been eliminated; if these issues were related to our outcome, or to the independent variables, some bias in the estimates could have occurred. Women’s willingness to discuss or disclose sensitive behaviours could have been affected by their religion or their own experiences with genital cutting; however, because nearly all respondents were Muslim and had been cut themselves, these characteristics were unlikely to have had a systematic effect on women’s responses. The study did not include information on extended family members, in part because of data limitations, although previous research shows that extended family members may have an important role in the decision-making process regarding medicalization [29]. Some selection bias occurred because our sample consisted only of women with at least one daughter who had undergone female genital cutting. As a result, we could not make comparisons between women opting for medicalization and women abandoning the practice. Contextual factors— such as gender norms, economic opportunities, the availability of medical facilities and levels of social pressure to perform female genital cutting— were not included in the analyses, which is especially important because female genital cutting is deeply embedded in a country’s culture [54]. Moreover, the availability of medical resources for individuals starts in their environment. We were not able to measure social pressure or other contextual factors, but our results show substantial regional variation in the medicalization of female genital cutting. Future research should examine the extent to which such contextual

factors explain the substantial regional variation in women's choices regarding whether and by whom their daughter is cut.

Conclusions. An increasing proportion of women in Egypt are having their daughters undergo female genital cutting performed by a health professional. We show that a woman's social position in Egypt—both within and outside of her household— is associated with medicalization of the procedure. These results could help identify which women should be targeted by Egyptian campaigns aiming to discourage or eliminate female genital cutting. Further research is needed to explore the social meaning attributed in Egypt to medicalized genital cutting to inform and develop legislation and campaigns that could decrease the prevalence of the practice.

5.3. Article 3: The medicalization of female genital cutting: harm reduction or social norm?

Chapter based on the publication:

Nina Van Eekert, Buffel Veerle, De Bruyn Sara & Van de Velde Sarah. (2020). The medicalization of female genital cutting: harm reduction or social norm? *Sociology of Health and Illness*, Doi: 10.1111/1467-9566.13153.

5.3.1. Abstract

While female genital cutting (FGC) has increasingly been medicalized in Egypt [4, 237], little is known about the motivations behind the turn to health professionals to perform FGC in practising communities. In this article, we aim to contribute to this knowledge by applying the sociological framework of medicalization [98]. We will examine the profile of women who choose to have their daughter's FGC performed by a medical professional, as well as the normative context in which this decision is made.

We make use of the 2005, 2008 and 2014 waves of the Egyptian Demographic Health Survey. Multilevel multinomial regressions are used to examine the relationship between the mother's social position, the normative context in which she lives and the mother's decision to medicalize her daughter's cut compared to the choice of a traditional or no cut.

First, we see that women with a higher social position are more likely to cut their daughter medically than traditionally. Medicalization is stratified and thus might act as a status symbol. Second, we found that mothers are most likely to use a medicalized procedure when social pressure to cut is strong. Third, we conclude that medicalization of FGC acts as a social norm itself.

5.3.2. Introduction

Today, female genital cutting (FGC⁴⁹), which comprises a wide range of procedures involving total or partial removal of the female genitalia for non-medical reasons, is more regularly practised by trained healthcare providers (medicalization) [3, 225, 237]. One of the major concerns and present debates surrounding the medicalization of FGC is understanding what drives medicalization and how it can be discouraged [89]. While opposition to medicalized FGC is strong, mainly based on the assumption that medicalization counteracts the abandonment of FGC [3], little is known about the motivation behind the turn to health professionals to perform FGC in practising communities. The current article aims to contribute to the understanding of the demand side for medicalized FGC by applying the sociological framework of medicalization – where medicalization is seen as a process by which *nonmedical* problems become defined and/or treated as *medical* problems [98]. We will examine the profile of women who choose to have their daughter's FGC performed by a medical professional, as well as the normative context in which this decision is made.

FGC has been performed on at least 200 million women and girls alive today, most of whom live in Africa, Asia or the Middle East [21]. FGC is known to be harmful to girls' and women's physical and psychological health and is a human rights violation [10]. Over the last four decades, international and national bodies, as well as civil and religious societies, have combined forces in the fight to ensure the abandonment of FGC, mainly by raising awareness of the health consequences [11, 82, 89, 238]. While the practice is still widely prevalent [10], the percentage of women cut is decreasing in younger age groups in almost all countries. However, the health approach may have also motivated families to turn to trained health professionals in search of safer cutting, and thus to reduce harm to health [7].

Medicalization of FGC is geographically concentrated in a few countries. Medicalization percentages in Africa are highest in five countries: Sudan, Egypt, Guinea, Kenya and Nigeria [4]. Approximately half of these medicalized cuts have taken place in Egypt [4]. For this reason, as

⁴⁹ FGC is also known by other terms in the literature, of which the most well known are Female Circumcision (FC), Female Genital Mutilation (FGM) and Female Genital Mutilation/Cutting (FGM/C). While all of these terms are often used interchangeably, there are nuances in their meaning. Female circumcision is now less used, as it is seen to suggest a similar status to male circumcision, when a clear distinction should be made. Using the word 'mutilation' is controversial as the communities affected do not perceive FGM as mutilation. Since, as sociologists, we want to speak in as neutral terms as possible, actively minimizing value judgements, we have chosen to use the term FGC.

well as an overall high FGC prevalence rate in Egypt, and having had a period of governmental consent for medicalized FGC, in this study we focus on Egypt [11]. In Egypt, type I FGC, partial or total removal of the clitoris and/or the prepuce, or type II FGC, partial or total removal of the clitoris and labia minora, with or without excision of the labia majora, are usually performed⁵⁰ [205]. In 1994, aiming to improve the safety of FGC in a context where the practice was seen as inevitable, the Egyptian government gave its consent for health personnel to perform FGC [6, 7, 11, 154]. In 1995, after opposition by women's rights groups and health advocates, and the death of a girl in a hospital during an FGC procedure [70], this policy was revised. FGC was then banned in all hospitals, except 'when medically necessary'. The prerequisite of medical necessity functioned as a loophole until 2006 [6, 11, 70]. Today, FGC is banned for all practitioners and at all locations and it is criminalized in the penal code [205].

In the current paper, we take a quantitative look at the associations between medicalizing a daughter's cut and the social position of the mothers in the normative context. The hypotheses about why mothers opt for a medicalized cut for their daughter are described using a sociological medicalization framework. Critical analyses of medicalization are important for an understanding of how human issues come to be defined and treated as health issues, framing medicalization as a process that has both negative and positive elements [239]. Moreover, a medicalization lens provides a valuable way to uncover some of the limitations and implications of the global health agenda [239]. With this research, we hope to be able to both contribute to the existing literature on the medicalization of FGC and to challenge the medicalization framework by expanding it to a non-Western context. This paper is the first to apply a sociological medicalization framework to the practice of FGC.

Theory and hypotheses

Theories of FGC have strongly focused on the social position that women occupy within the gender stratification system. This social position determines women's ability and preferences to make certain choices and to decide between alternatives [32, 39]. It determines which material, human and social resources are available to women both within and outside their household,

⁵⁰ The range of cutting practices is divided into four types by the World Health Organization (WHO). In addition to type I and type II (see text), type III, or infibulation, involves narrowing of the vaginal orifice, creating a covering seal by cutting and appositioning the labia minora and/or the labia majora, with or without excision of the clitoris; and type IV includes all other forms of FGC, such as pricking, piercing, incising, scraping, or cauterizing the skin near the clitoris for non-medical reasons.

and helps explain differences in the choices that women make concerning FGC. Where FGC is practised, it is nearly always seen as part of a woman's preparation for marriage [27, 218]. In a context where women have few opportunities to participate in economic and social activities outside the family, FGC is therefore perceived as a means to acquire both economic security and social identity [240]. Moreover, the practice is associated with notions of femininity and beauty and acts as a means to control women's sexuality [28]. Within Egypt, FGC is additionally perceived as a religious tradition, and is associated with women's modesty and chastity [28, 29]. For this reason, many women, mothers in particular, advocate continuance of the practice in order to secure the marriageability of their daughters [11]. By safeguarding this social position and marriageability of their daughters through FGC, mothers also secure their own social position [26]. FGC thus not only reflects the social position of a woman with respect to men, but also with respect to other women, and as members of the community.

When women are able to participate in economic and social activities outside marriage and are therefore less dependent on marriage for position and economic security, the salience of FGC also decreases [58]. This finding is enhanced in the context of increased levels of industrialization and urbanization within Egypt, which has resulted in reduced control over the individual behaviour of women, as well as the erosion of ties to the family and community [43, 44]. However, while changes in women's social position seem to have a significant impact on increasing negative attitudes towards FGC, its association with a decline in the prevalence of FGC is less straightforward. While some studies have found evidence of a decline in the practice [44], this decline has been accompanied by increasing levels of medicalization among the girls that are cut [4]. Little is known about the drivers of this increasing medicalization. In the following section, we develop three hypotheses concerning this medicalization trend, thereby focusing on its relationship to women's social position, as well as to the normative context concerning FGC.

The medicalization of FGC as a stratified process

A consistent finding in the medicalization literature is its stratified nature [96]. Women are more often targets of medicalization processes than men. Moreover, medicalization has become one way to reinforce gender boundaries [93]. The gender-stratified nature of medicalized processes have been most notably established in reproductive health domains, such as that of fertility [141], childbirth [97], menstruation [241] and menopause [242], but also in the domain of aesthetic and cosmetic treatments [93, 243]. These examples also encompass the recent shift in

the medicalization process, especially for women, from a focus on control of health to a focus on the transformation and optimization of the body [244]. Such medicalization has been gradually extended to include social problems and conditions that are understood as undesirable or stigmatizable differences [96, 245]. Moreover, healthcare has become commodified and patients have become consumers, thus playing a larger role in defining and shaping medicalization. While medicalization was originally associated with medical dominance, these examples suggest that it can also be driven by other factors, such as affluent women's desires for partnership with high position physicians, or technological innovations that allow adherence to middle-class gendered norms concerning femininity [246].

With respect to the medicalization of FGC, there is a stratified process that shapes and maintains inequalities. This may be explained by a number of factors. Having greater socioeconomic resources determines the ability to afford medical interventions and travel to healthcare institutions [126]. Subsequently, being experienced in using the healthcare system leads to greater trust in the system and more confidence in dealing with medical professionals [126]. Moreover, education often leads to the incorporation of Western ideas about health and individual rights (through schooling and exposure to the media) [82]. As a result, women who are educated and have access to socioeconomic resources may be more likely to find their way to health professionals to perform their daughter's cut and thus opt for a medicalized version of FGC [6]. Finally, the medical procedure may serve as a status symbol on its own, thereby reproducing existing inequalities between women [121, 127].

A number of studies indeed confirm that the medicalization of FGC is also highly stratified and subject to a number of identifiable factors. Studies focusing on medicalization indeed found that women with a higher level of education [29, 44, 127, 247], a higher socioeconomic position [44, 127], a wealthier household [127], as well as those living in urban areas where health facilities are accessible and families are more likely to be exposed to health education messages [44, 56, 131], are more inclined to have their daughters cut by a trained health professional. In line with these findings, we therefore propose that: *The higher the social position of the mother, the higher the likelihood that her daughter will be cut by a trained health professional (Hypothesis 1).*

Medicalization of FGC as a harm-reduction strategy

Focusing merely on the social position of the mother tends to downplay the fact that FGC is not solely determined by an individual decision of the mother. The commonly used arguments for performing FGC – social pressure, culture, tradition and religion [14] – are substantially social in nature. The practice of FGC may in fact act as a means to engage with a woman's peer network and thus expand her social capital, power and prestige with older women and men [218, 248].

Whether a woman acts in line with her attitude towards the practice may thus be influenced by her own social position, as well as the social norms within her community [25]. A woman may feel that she has to conform to social norms regarding FGC to ensure her daughter's social position, unless she knows that others have also refused to cut their own daughters [11, 54, 56]. Research shows that even if many individuals are opposed to FGC, the practice may persist because the punishment for isolated non-conformers is too great: exclusion from the marriage market, expulsion from the community and loss of opportunity for one's children [45]. In a context where the prevalence of FGC is practically universal, as is the case in many Egyptian regions, a mother who has achieved a relatively high social position may therefore opt for medicalization, rather than abandon the practice of FGC completely. Here, medicalization can be understood as a compromise between complete abandonment of the practice versus a cut by a traditional circumciser, which is associated with more health hazards than the medicalized cut. Women may opt for a medicalized version of FGC to retain the social benefits related to the practice while simultaneously reducing some of its health hazards [6].

Again, several parallels can be established with the literature on medical interventions concerning children, for example, the use of synthetic oestrogen to reduce female height [136] or to the uptake of ADHD medication [249]. In such circumstances, it is predominantly the mother who is the primary initiator [137], while the children often have little agency in making these decisions [138]. The rationale that parents use for these decisions is based on adult perceptions about the social difficulties their children might face at an older age, their success in finding a partner and employment, as well as psychological reasons, such as emotional distress at being different. The medicalization of FGM can in this way be interpreted as a kind of medicalization of ideal mothering and a harm-reduction strategy, and as a 'quick fix' for socially and culturally situated problems [139].

In addition, the shape that such harm reduction has taken in FGC can also be seen as a shift towards the total abandonment of FGC. Parallels can be found in research on the harm reduction approach to tobacco, alcohol and drug use, where medicalization has occurred as a step along the route to abandonment [250]. Medicalization of FGC is thus considered by some as a kind of transition process leading ultimately to complete abandonment of FGC, which might be labelled as the demedicalization of FGC, such as the demedicalization of methadone treatments [44]. In contrast to the harm-reduction approach to drugs and alcohol use, which focuses on the individual or health position of the most vulnerable groups, the medicalization option for FGC is chosen more by mothers with a higher social position [127]. Based on the harm-reduction argument, we expect that: *Mothers who have a higher social position will be more likely to opt for a medicalized cut when they have a less supportive attitude towards FGC (Hypothesis 2a) and live in a region where the percentage of girls who were recently cut is higher than elsewhere (Hypothesis 2b).*

Medicalization of FGC as a social norm

Finally, we may expect that medicalization of FGC may act as a social norm itself. Social norms are standards of behaviour shared by other people and based on widely shared beliefs about how individual group members should behave. People are concerned with their relative standing within a group and therefore act in line with existing social norms [251]. Based on previous sociological research on medicalization it is stated that medicalization may become a tool for adhering to social norms by controlling or eliminating deviance; in the current case, meaning not being cut [140, 141]. When the medicalization of FGC has become so normalized, many may deem its medicalization as a hegemonic practice [141, 252]. In addition to FGC being a social norm, there might be an extended norm about who must perform the cut – in this case, a trained health professional. There are parallel examples within other health-related domains, most prominently the medicalization of childbirth as the dominant method in many industrialized societies [140]. Previous research shows that, in Egypt, mothers consult trained health professionals about whether their daughter should be cut, and ask them to perform the procedure if they deem it necessary [55]. Thus, mothers explicitly consult health professionals about their daughter's FGC. This is in line with medicalization becoming more consumer driven;

nevertheless, trained health professionals should remain important gatekeepers concerning consumer-defined health issues [253].

If the idea supported by a group is that girls need to be cut, and the vast majority of girls are cut by a trained health professional, then the medicalization of FGC may become the norm. This leads us to expect that: *Mothers living in a region with high percentages of medicalization, pointing to medicalization as the social norm, are more likely to medicalize their daughter's cut (Hypothesis 3).*

5.3.3. Data and Methods

Data

This study used data from the fourth, fifth and sixth waves of the *Egypt Demographic and Health Survey* (EDHS), conducted in 2005, 2008 and 2014, respectively. The EDHS surveys collect information on a nationally representative sample of women aged 15 to 49 years who are or have once been married. Data were collected using a multi-stage cluster sampling design and strata for rural and urban areas, and for the 27 Egyptian governorates. A standardized questionnaire was administered during a face-to-face interview. This questionnaire included questions on FGC of the respondent herself, as well as all her living daughters aged 20 years or younger. Further detailed information on the sampling, data collection and questionnaire is available in the EDHS reports.

For the current study, we selected mothers who had at least one daughter older than 12 years. All of the information was obtained from the mother: information on social position and attitude towards FGC was related to the current situation of the mother, while information on FGC position and the FGC practitioner was related to her daughter. Given that more than 90% of all women who reported being cut in the EDHS had the procedure by the age of 12, we did not consider those who were younger, assuming the age of 12 to be definitive. If a mother had two or more daughters over the age of 12, we asked about the youngest.

Due to security issues, the most recent EDHS did not collect data in the governorates of North and South Sinai. However, the populations of these governorates comprise less than 1% of Egypt's total population. We also excluded the governorates of Suez, Ismailia and Matroh because the population density was below 300 per square kilometre, making these governorates

unsuitable to assess social norm mechanisms. After a listwise deletion of the missing variables, the unweighted database consisted of 6,858 respondents.

Measures

Dependent variable. FGC position daughter was measured by differentiating between mothers whose daughter had not been cut, those who had been cut by a traditional practitioner, and those whose daughter's cut was performed by a trained health professional (reference category). This multinomial outcome allowed us to take into consideration all possible decisions concerning a daughter's FGC. The differentiation between traditional and medicalized cut is in line with the WHO definition (2010) of the medicalization of FGC.

Micro-level indicators. Women's social position was operationalized in line with context-specific literature on female empowerment [131, 193]. It was measured in terms of employment position, level of education, household wealth, age at first birth, spousal age difference, the degree of autonomy in household decision-making and gender violence attitudes.

Woman's employment position indicates whether a woman is currently not working (reference category) or currently working. The level of education distinguishes between women with no education (reference category), women who finished primary education, and women who finished secondary or higher education. Household wealth was divided into four categories: poorest (reference category), poorer, middle and richer household. The original EDHS variable divided the respondents into wealth quintiles, but for the current analysis we merged the richest two categories to ensure a sufficient number of respondents in each group.

Age at first birth refers to the age of the mother when she gave birth for the first time. *Spousal age difference* was calculated by subtracting a husband's age from the wife's age. *Household decision autonomy* was based on the question of whether or not the respondent had some, none, a share or a final say in: her own healthcare; in large household purchases; and in visits to family or relatives. The original items were given a value of 2 if the respondent indicated having full decision-power, 1 in the case of a shared say with her partner or others, and 0 if the respondent had no decision-making power. However, because previous research showed that both shared and full decision-making indicate a certain decision-making power for women, we recoded the variable into a dummy having a value of 0 if the mother had no decision-making power, and 1 if she had shared or full decision-making power. The scale created was the sum of

these recoded item variables divided by three. It ranged from 0 to 1, with higher scores indicating more household decision autonomy. The scale on gender violence attitudes was indicated by the respondents tolerance of domestic violence. The EDHS asks whether the respondents tolerate wife beating in the following situations: if she neglects the children, burns the food, argues with or refuses to have sex with her husband. The items have a value of 0 if the respondent does not tolerate wife beating, and 1 if she does. The gender violence attitudes are the sum of those values divided by four. We tested the construct validity of both scales with confirmatory factor analysis. Standardized factor loadings were all above 0.7 and the fit of the measurement model was good (RMSEA = 0.026; CFI = 0.998). These results justify the use of these constructs in the multilevel analyses.

Attitudes towards FGC is based on the the EDHS question that asked respondents whether they thought FGC should be discontinued. We differentiated between respondents who thought the practice should be discontinued (reference category) or continued.

Control variables. Our analyses were controlled for *residence* – urban or rural (reference category) – as well as for *religion* – Muslim (reference category) or Christian. Moreover, we controlled for a cohort effect by including *mother's year of birth* and the *daughter's birth order*.

Macro-level indicators. The variable of *FGC prevalence* captures the percentage of daughters who underwent a cut among the total number of daughters. The variable of *FGC medicalization* represents the percentage of daughters who were cut by a professional healthcare provider among the total number of daughters who had a genital cut. These percentages were aggregated from the EDHS 2005, 2008 and 2014 samples of daughters between the ages of 12 and 20 years. This sample was divided into two birth cohorts. The FGC prevalence percentages and FGC medicalization percentages within the birth cohorts of 1984-1990 and 1991-1996 were used as social norm indicators for the birth cohorts 1991-1996 and 1997-2002, respectively. The argument for using this time lag is twofold. First, a predicting variable which is constructed by using the outcome variables is statistically incorrect. This problem is solved by using prevalence percentages for the preceding birth cohort. Second, the time lag is in line with the idea that decision-making is a longitudinal process influenced by social norms that may be present well before the moment at which the actually genital cut takes place.

Statistical procedures

First, we calculated the weighted descriptive statistics for our sample in percentages in the case of categorical variables, as well as the means and standard deviations for the continuous variables. The results are presented in Table 5. Groups of mothers opting for a traditional, a medicalized or no cut were compared.

Subsequently, we tested our set of hypotheses using multilevel multinomial regression analyses. Medicalized FGC is included in the analyses as the reference category of the outcome variable. In this way, we can compare both the decision not to cut and the decision for a traditional cut with the option of a medicalized cut. The multilevel results are presented in Table 6a (medicalized versus traditional cut) and Table 6b (medicalized versus no cut). We clustered our sample of mothers within 22 governorates. We estimated five random intercept models, which increase in complexity, with each model offering new insights into the hypotheses and relationships. Model 4, including an interaction effect, includes an additional random slope of the interaction term at the lowest level, being attitudes towards FGC. We used the second-order predictive quasi-likelihood (PQL) procedure in MLwiN [254]. In the analyses, all continuous variables were grand-mean centred. Coefficients were considered significant if they had p-values lower than 0.05. In line with Mood [255], the coefficients were γ -standardized, making them comparable across models.

In Model 1, we estimated the relationship between the social position of the mother and the medicalization of her daughter's genital cut, thereby testing Hypothesis 1. In Models 2-4, the harm-reduction hypothesis (Hypothesis 2) is addressed. More specifically, we examined the association between negative attitudes and the medicalization of FGC in Model 2, and in Model 3, the impact of FGC prevalence on the medicalization of FGC. Model 4 included an interaction term between the mother's attitude towards FGC and FGC prevalence (Model 4), testing whether the relationship between attitudes towards FGC and the medicalization of FGC differs according the FGC prevalence in the governorates in which the mothers live. Our final model (Model 5) tested our third hypothesis by including the percentage of daughters within different governorates who had a medicalized genital cut.

5.3.4. Results

In this study we examine which aspects of women's social position, attitude towards the practice of FGC and the normative context are associated with medicalization. Here, we start with a discussion of some weighted descriptive results presented in Table 5. Of the youngest daughters older than 12 years old, 50.8% had the procedure performed by a trained health professional and 12.3% by traditional practitioners, while 36.9% of the daughters were not cut. The governorate percentage of daughters of a certain year within a birth group who were cut, out of the total number of daughters, varied between 11% and 89% (results not shown). Within these groups of daughters who were cut, the governorate percentage of medicalization varied between 44% and 96% (results not shown). The Pearson correlation coefficient between these two governorate percentages was 0.087, meaning that being cut is not necessarily associated with medicalization.

In Model 1 (Table 6), the effects of women's social position at individual level are shown. Women's social position is clearly associated with medicalization of FGC: women who had no education, belong to the poorest wealth quintile and have more tolerance of domestic violence are most likely to cut their daughter in a traditional way compared to seeking a medicalized cut. Belonging to wealthier households and having received at least primary education increases the likelihood of medicalizing the daughter's cut, compared to opting for a traditional cut. Increasing odds for no cut are reserved for women who have at least a secondary education and belong to the highest wealth quintiles. Similarly, we see that higher age at first birth increases the odds for medicalized FGC as well as for no cut, compared to traditional cut. Women who have a higher social position are thus indeed more likely to medicalize their cut, compared to opting for a traditional cut (Hypothesis 1 and 2).

Contrary to our expectations, we found no significant effects on the odds of medicalizing a daughter's cut by employment and decision-making power in the household, whether this was compared to traditional FGC or to its abandonment. Spousal age difference had the unexpected effect that the older the woman in relation to her husband, the higher the likelihood of a traditional cut. However, the extent of the effect was very limited.

Concerning the control variables, we found that they were mainly significant when comparing medicalized FGC to no cut. Living in an urban area and being Christian increased the likelihood of not cutting. Moreover, we found that the younger the mother, the higher the

chance she would decide that her daughter should not be cut. Finally, when looking at daughter's birth order, we saw that daughters having a higher birth order, thus having more older siblings, were more likely to not be cut than to have a medicalized cut. Birth order had only a limited effect on who the FGC practitioner was, with the higher the birth order, the lower the odds for a traditional cut compared to a medicalized one.

Model 2 shows us that adding an attitude variable – belief that the practice should continue or not – is not associated with an increasing effect of women's social position on medicalization. Believing that the practice should discontinue strongly increases the odds of FGC abandonment, but does not influence the choice of practitioner. An opposite effect was found for FGC prevalence (Model 3) When a mother lived in a governorate where FGC prevalence was high for girls who were recently cut (looking at the preceding 6-year birth cohort of daughters), she was more likely to medicalize FGC, compared to opting for a traditional FGC). However, we found no effect of FGC prevalence when comparing medicalized FGC with no cut. The interaction effects between FGC prevalence and attitude, added in Model 4, were not significant. Thus, it is apparent that mothers are more likely to medicalize the cut when FGC prevalence is high, but attitudes had no effect on the practice (Hypothesis 3).

In Model 5, we see strong and large effects of the medicalization percentage. When medicalization percentages are high, mothers are least likely to perform a traditional cut. If they opt to cut their daughter, the likelihood that they choose a health professional to perform the practice is higher than opting for a traditional practitioner (Hypotheses 4). Nevertheless, the increasing likelihood of abandoning the practice is highest. This is in contrast to the assumption that medicalization counteracts the abandonment of FGC. If medicalization percentages are high, the likelihood is highest for women to abandon the practice, then to medicalize the practice, and lowest to perform a traditional cut.

Table 5. Descriptives (unstandardized weighted data)

Measures	Traditional cut			Medicalized cut			No FGC		
	N	%	Mean (SD)	N	%	Mean (SD)	N	%	Mean (SD)
Respondent currently working									
No	745	82.9%		3019	81.1%		2029	75.0%	
Yes	154	17.1%		702	18.9%		677	25.0%	
Highest educational level									
No Education	570	63.3%		1620	43.5%		746	27.6%	
Primary Education	152	16.9%		660	17.7%		300	11.1%	
Secondary or Higher Education	178	19.8%		1442	38.7%		1659	61.3%	
Household Wealth									
Poorest	382	42.5%		981	26.4%		383	14.2%	
Poorer	246	27.4%		939	25.2%		386	14.3%	
Middle	151	16.8%		773	20.8%		396	14.6%	
Richer	120	13.3%		1029	27.6%		1540	56.9%	
Age at first birth			19.35 (3.133)			20.31 (3.511)			21.66 (3.931)
Spousal Age Difference			-6.77 (5.208)			-7.05 (5.33)			-6.65 (4.81)
Household decision autonomy			0.68 (0.35)			0.74 (0.34)			0.81 (0.29)
Tolerance domestic violence			0.37 (0.39)			0.26 (0.35)			0.14 (0.27)
Attitude towards the practice									
Should continue	836	93.0%		3407	91.5%		1086	40.1%	
Should discontinue	63	7.0%		315	8.5%		1619	59.4%	
Control variables									
Place of residence									
Urban	188	20.9%		1022	27.5%		1502	55.5%	
Rural	711	79.1%		2700	72.5%		1204	44.5%	
Religion									
Muslim	878	97.7%		3649	98.0%		2473	91.4%	
Christian	21	2.3%		73	2.0%		21	8.6%	
Year of birth mother			1969.92 (5.87)			1970 (5.87)			1970 (5.85)
Birth order daughter			3.065 (1.79)			2.83 (1.78)			2.41 (1.56)
Total	899	12.3%		3722	50.8%		2705	36.9%	

Table 6a: Multilevel results of models for traditional cut versus medicalized cut

Measures	Model 1		Model 2		Model 3		Model 4		Model 5	
	OR	Sign	OR	Sign	OR	Sign	OR	Sign	OR	Sign
<i>Micro-level indicators</i>										
Employment (ref. unemployed)										
Respondent currently working	1.029		1.020		1.017		1.037		1.032	
Educational level (ref. no education)										
Primary education	0.878	*	0.876	*	0.877	*	0.899	*	0.880	*
Secondary/Higher ducation	0.753	***	0.755	***	0.759	***	0.775	***	0.753	***
Household Wealth (ref. poorest)										
Poorer	0.891	***	0.884	*	0.886	*	0.904	*	0.889	*
Middle	0.829	**	0.830	**	0.830	**	0.857	*	0.836	**
Richer	0.617	***	0.610	***	0.609	***	0.636	***	0.633	***
Age at first birth	0.969	***	0.969	***	0.979	*	0.979	*	0.976	**
Spousal age difference	1.010	*	1.010	*	1.010	*	1.009	*	1.010	*
Household decision autonomy	1.016		1.015		1.020		1.012		1.028	
Tolerance domestic violence Attitude towards the practice (ref. Continued)	1.276	***	1.302	***	1.308	***	1.292	***	1.255	***
FGC should be discontinued			0.967		0.958		0.890			
<i>Macro-level variables</i>										
FGC prevalence					0.991	**	0.992	**		
FGC medicalization									0.978	***
<i>Interaction effects</i>										
Should discontinue *FGC prevalence							0.999			

Table 6b: Multilevel results of models for traditional cut versus no cut

Measures	Model 1		Model 2		Model 3		Model 4		Model 5	
	OR	Sign	OR	Sign	OR	Sign	OR	Sign	OR	Sign
<i>Micro-level indicators</i>										
Employment (ref. unemployed)										
Respondent currently working	1.037		1.006		1.005		1.020		1.037	
Educational level (ref. no education)										
Primary education	0.885	*	0.840	**	0.838	**	0.883	*	0.885	*
Secondary/Higher ducation	1.259	***	1.109	*	1.109	*	1.104	*	1.264	***
Household Wealth (ref. poorest)										
Poorer	1.012		0.936		0.936		0.949		1.012	
Middle	0.990		0.946		0.945		0.961		0.988	
Richer	1.373	***	1.168	*	1.168	*	1.159	*	1.379	***
Age at first birth	1.070	***	1.066	***	1.069	***	1.059	***	1.061	***
Spousal age difference	1.002		1.003		1.003		1.002		1.002	
Household decision autonomy	1.041		0.985		0.987		0.982		1.035	
Tolerance domestic violence Attitude towards the practice (ref. Continued)	0.862	*	1.016		1.020		1.022		0.873	*
FGC should be discontinued			3.676	***	3.674	***	2.742	***	3.676	***
<i>Macro-level variables</i>										
FGC prevalence					0.997		0.998			
FGC medicalization									1.015	**
<i>Interaction effects</i>										
Should discontinue *FGC prevalence							0.992			

5.3.5. Discussion and Conclusion

Our study offers some important findings concerning the medicalization of FGC, pointing to a role for both social norms and the social position of mothers. As a first hypothesis, we proposed that a higher social position of the mother would increase the likelihood that her youngest daughter who was cut had the procedure performed by a trained health professional. As a second hypothesis, we proposed that mothers who hold negative attitudes towards FGC would be more likely to have their daughter cut by a trained health professional, especially in a context where most girls in the community were recently cut. As a third hypothesis, we proposed that medicalization of FGC may act as a social norm itself, thereby making it more likely that the daughter was cut by a trained health professional in a context where a high percentage of girls in the community are already cut by a trained health professional. We can derive three main conclusions from our results.

First, we found that certain aspects of women's social position are related to the medicalization of FGC. Being more highly educated, belonging to a wealthier household, being older when giving birth for the first time and being less tolerant of domestic violence all increase the likelihood of choosing medicalization, compared to traditional FGC. This confirms findings from the literature currently available on the association between a higher social position and the medicalization of FGC [29, 44, 127]. The relationship between medicalization and a higher social position may be explained by various mechanisms. First, wealthier households may be able to afford the financial costs related to the medicalized procedure [44, 96, 126]. Second, higher educated women may have incorporated more Western ideas about health and individual rights through their education [82]. Individuals who have sufficient economic resources but also knowledge about the healthcare system may have better access to medicalized procedures [6, 96]. Third, medicalization can function as a status symbol in itself. The economic ability of mothers to circumcise their daughter in a medical context may contribute to their social status [121].

Although the literature available on how the medicalization of FGC functions as a status symbol is not well developed, the preference for a medicalized procedure by higher positioned social groups has been found in other health-related domains, such as the medicalization literature on C-sections [128], infertility [229, 236], reproduction [208] and designer cosmetic surgery such as vaginal rejuvenation [230, 256]. The latter procedure in particular shows some

parallels with the medicalization of FGC, as both are done to conform to a social norm or sociocultural ideals about women's bodies and sexuality. These cases exemplify how a medical procedure may act as a status symbol, and how health risks become secondary to conflicting interests and values [231]. In each of these cases, medicalization of a health-related practice was perceived as a status symbol in itself, functioning as a signifier of a woman's social status as a 'modern' mother [207, 208].

In line with previous research, an association between women's social status and the abandonment of FGC was also found. Adding to previous research, we also compared this effect with medicalized FGC. The odds of abandonment are higher than those of medicalization for the highest educated and the wealthiest. This might indicate that women can only reject FGC as a culturally required practice that ensures social inclusion, if they have a sufficiently high socioeconomic position [56]. While medicalizing FGC is an emancipated way of reinforcing gender boundaries, possibly even functioning as a status symbol, abandonment fully rejects FGC as a gendered practice. This rejection of FGC requires an even stronger social position of women than that which is associated with its medicalization.

Second, we found that mothers are more likely to medicalize their daughter's cut than to opt for a traditional cut, if social pressure to cut is strong, as is the case in regions where high percentages of young women were recently cut. Since social pressure is one of the main reasons for maintaining the practice of FGC [11, 54, 56], mothers with a relatively higher social position may prefer a medicalized cut as a way of conforming to the social norm of FGC, while at the same time reducing the harm related to the practice [6]. In an additional analysis, we checked whether mothers opted for a medicalized cut were indeed more aware of FGC's potential health risks, and thus possibly opting for a medicalized cut as harm-reduction strategy. The results (see Appendix, Tables A and B) show that women who believe that FGC can lead to a girl's death and makes giving birth more difficult, more often opt for abandonment first and then medicalization; while those disagreeing with these negative health consequences more often opt for a traditional cut. This possibly indicates, in line with previous research, that the motivations behind both abandonment and medicalization may be to reduce health risks [82, 257].

We also expected this harm-reduction argument to be found when attitudes towards the continuation of the practice are negative. However, attitudes did not have a significant effect on the likelihood of medicalization when compared to traditional cutting. Believing that the practice

of FGC must cease, strongly increases the likelihood of FGC abandonment, but does not influence the choice of FGC practitioner. We also did not find a significant interaction between FGC prevalence and attitudes towards the practice. We can conclude that medicalization of FGC can be understood as a harm-reduction strategy for ideal mothering, mainly driven by social pressure to cut. Extending previous research, which found that the normative context affects a mother's attitude towards FGC and the choice to cut or not to cut her daughter [25, 240], we argue that it also influences the choice of FGC practitioner. Women who want their daughters to be cut search for less harmful, culturally acceptable alternatives [6], rather than medicalization being a compromise between abandonment and traditional methods.

Third, medicalization acts as a social norm itself. The percentage of medicalized cuts within governorate birth cohorts had a strong influence on the likelihood of medicalization. Our results thus suggest that the social norm is possibly no longer 'a girl has to be cut', but rather 'a girl has to be medically cut'. The medicalization of FGC possibly functions as a tool allowing mothers to adhere to the social norm, which is that girls need to be cut, and it has become the dominant cultural view of how FGC should be done. FGC has thus come under medical surveillance. Although it targets healthy women, it does so to prevent future health risks [98], in particular, complications that could occur if FGC is performed by traditional practitioners. Moreover, when the medicalization of FGC becomes more widely practiced, the construction of FGC as a socially acceptable practice potentially shifts to new foundations, as a medical issue. This would be in line with normative ideas concerning other significant life events, such as childbirth, which is now considered something that should be done in a medical context to prevent possible medical risks [141], or other social issues, such as the medicalization of tobacco use as a health problem [250].

However, the finding that higher medicalization percentages increase the likelihood of FGC abandonment counters the argument that medicalization legitimates and thus encourages the practice. Moreover, in the same vein, we see that negative attitudes towards the practice increase the likelihood of abandonment, but not the likelihood of medicalization. We conclude, in line with Shell-Duncan [6] and Ahmadu [209], that medicalization as a harm-reduction strategy does not legitimate the practice. FGC is already seen as legitimate by its proponents, and this is not further legitimized by medicalization, while harm-reduction options do not encourage the behaviour, but are adopted as a safer alternative by those who already believe in the practice.

However, we are not able to predict whether the medicalization trend will ultimately be followed by demedicalization, and the eventual abandonment of FGC.

Finally, some limitations of this study should be acknowledged. First, we chose to focus on only the youngest daughter older than 12 to maximize proximity to the current situation. Information on the FGC position of older sisters was excluded from the analysis.

Second, the major limitation of the EDHS is the use of retrospective, self-reported behaviour that is subject to recall bias [258] as well as socially desirable answers. Specifically, the measurement of household decision-making power, and the indicator of attitudes towards FGC are sensitive to this bias. Moreover, respondents in the EDHS are not obliged to be alone when completing the survey. However, EDHS guidelines for interviewing respondents state that interviewers must try to find a space and place that is private with no one else around, as presence of the husband or other persons may influence women's answers. Additionally, we are aware that the decision-making process concerning FGC is complex, involving several individuals related to the girl in question. Open discussion is usually not tolerated, and if it is, it typically occurs among women [259], such as grandmothers and aunts [259]. Other women may influence the decision-making on FGC through peer pressure [248]. In some communities, men – mainly the fathers of the girls in question – may also be involved in the decision-making process [259]. In general, however, men's influence on decision-making is limited because of a culture of silence between the sexes and social obligation [27, 260, 261]. Finally, influential members of a community, such as village leaders, religious authorities and/or powerful patrons, guide decision-making on FGC practices. However, the influence of stakeholders in the decision about the medicalization of a daughter's cut has rarely been studied. With the exception of Yount's [29] finding that a father's educational level and the existence of an extended family are associated with a higher likelihood of medicalized FGC, no research has examined decision-making on medicalization. We should keep in mind that FGC remains a sensitive topic that is strongly influenced by its normative context.

Third, due to data limitations, we were unable to include information at the community level, but rather made use of the governorate level. We acknowledge that FGC prevalence and medicalization percentages within governorate birth cohorts are rough proxies for social norm indicators. Percentages may not fully reflect the social pressure that the inhabitants experience. In addition, governorates are of a substantially larger size than local communities, which is a

more optimal level for examining social pressure. Despite these limitations, our results do show the added benefit of a multilevel approach to the study of the medicalization of FGC. Furthermore, due to a high number of missing variables, we excluded information on hurdles to accessing healthcare.

Fourth, the definition of medicalization used is rather strict. In the current research, we used the WHO definition, which states that FGC is medicalized when performed by any category of health provider. However, the medicalization of FGC may include a wide variety of 'medical' interventions, from using sterile razors, through operating in clinical settings [6]. Additionally, medicalization is sometimes also perceived as a trend towards less severe forms of cutting, such as nicking or pricking the clitoris [4].

The imprecise definition of medicalized FGC could also lead to a bias in survey answers regarding the FGC practitioner. Respondents may have perceived the practitioner to be a trained health provider, while in reality they might have no medical training, despite using surgical tools, painkillers and antiseptics [89]. This pseudo-medicalization may especially occur in countries where health systems are weak and where there is a shortage of trained health professionals [115, 119].

Nonetheless, despite these limitations, we are convinced of the added value of the current research, for two reasons. First, this paper is the first to discuss the medicalization of FGC within the sociological framework of medicalization and it contributes to the limited research on medicalization in a non-Western context. Second, we are the first to conduct multinomial analyses comparing the mother's decision to cut traditionally, medically or not to cut. Moreover, it is the first analysis of the medicalization of FGC that takes into account social norms by applying a multilevel framework.

In summary, in the current research, we found that an individual woman's social position, as well as the FGC prevalence and percentage of medicalization at governorate level, were associated with a mother's choice to medicalize her daughter's cut. Further research on factors involved in decision-making on the medicalization of FGC is recommended, as an in-depth understanding of why the decision is made to medicalize the FGC procedure is relevant to both the scientific field and the broader policy debate.

5.3.6. Appendix to article 3

*Table D. Crosstab medicalization youngest cut daughter*believe FGC can lead to girl's death*

FGC of youngest daughter cut	Traditional	Medical	No cut
Agree	29.1	34.4	62.8
Disagree	59.3	56.4	31.0
Don't know	11.6	9.2	6.2

(Pearson's Chi² = 0.000)

*Table E. Crosstab medicalization youngest cut daughter*believe FGC makes childbirth more difficult*

FGC of youngest daughter	Traditional	Medical	No cut
Agree	10.2%	11.1%	11.6%
Disagree	73.4%	72.5%	66.0%
Don't know	16.4%	16.4%	22.3%

(Pearson's Chi² = 0.000)

5.4. Article 4: Exploring medicalization of female genital cutting within the Kisii county, Kenya

Chapter based on the submitted article:

Nina Van Eekert, Sarah Van de Velde, Sibyl Anthierens, Naomi Biegel, Martha Kieiri, Tammery Esho & Els Leye. Exploring medicalization of female genital cutting among the Kisii population in Kenya. Why do mothers opt for a medicalized cut and how does this relate to decreasing FGC prevalence? Under revision at Culture, Health and Sexuality

5.4.1. Abstract

While within the Kisii community in Kenya prevalence of female genital cutting (FGC) is decreasing, the practice is increasingly being performed by health professionals. The current study tends to explore the coexistence of these trends by exploring the social profile of mothers opting for medicalized FGC, their motives for doing so, and how these shifts possibly relate to other changes in the practice.

The social position of mothers who opted for a medicalized cut was described using the KDHS 2008-2009 and 2014. Additionally, 29 mothers with daughters around the age of cutting (8-14 years old) were selected for a face-to-face semi-structured in-depth interview in Kisii county Kenya through purposeful sampling. The transcripts of these interviews were coded and analyzed thematically, applying researcher triangulation.

Mothers' major driver behind the choice to medicalize is shown to be the belief that medicalizing FGC reduces the practice's health risks. Moreover, medicalized FGC might be perceived as the new community norm or became the only option. Innovatively we analyzed the shift towards medicalization in relation to other shifts in the practice of FGC and pointed out that medicalization in various cases was applied as a way to increase the practice's secrecy and decrease its visibility.

5.4.2. Introduction

Female genital cutting (FGC), which refers to all procedures involving the partial or total removal of the external genitalia or other injury to the female genital organs for non-medical reasons, remains a global problem [3]. Numerous national and international initiatives have attempted to discourage the practice. Nevertheless, more than 200 million girls and women alive today have undergone some form of FGC, and each year about 1.5 million young girls are at risk of being cut [4]. Kenya is often framed as an example of the success of anti-FGC initiatives, and FGC prevalence is decreasing steadily [262]. Looking at the Kenyan Demographic Health Survey (KDHS) for 2014 reveals that an FGC prevalence of approximately 30% within the oldest age cohort (45-49 years old) decreases to approximately 10% within the youngest age cohort (15-19 years old) [4], with the overall prevalence in women aged 15-49 at 21% [22].

Kenya is also unique in there being a remarkable decrease in FGC prevalence on the one hand, and an increase in FGC medicalization on the other [4]. Medicalization of FGC is defined by the World Health Organization (WHO) as a situation in which FGC is practised by a health-care provider, whether in a public or private clinic, at home or elsewhere [3]. Kenya has the third highest⁵¹ medicalization percentages on the African continent, at 14% [4]. Intergenerational comparison based on the KDHS 2014 shows that 15% of the cuts performed on women aged 15-49 were performed by a trained health professional, while for girls under 15 years old this increases to 20% [4]. Medicalization particularly increased after the implementation of the Children's Act in 2001, which criminalized the performance of FGC on girls under the age of 18 and penalties of imprisonment and fines. In 2011, the Prohibition of Female Genital Mutilation Act (2011) criminalized FGC regardless of the age or status of girls or women, but also addressed the stigmatization of uncut women, placing the onus on the Kenyan government to protect women and girls from FGC [22, 182]. The Act specifically states that anyone performing FGC, including health professionals, is committing a criminal offence [182].

The current trend towards medicalization presents a major concern in the fight against FGC. On the one hand, it is perceived to reduce the adverse immediate health consequences of FGC and is associated with less severe forms of FGC [4, 6]. On the other hand, medicalization may serve to legitimize the practice, especially when it is performed by medical professionals

⁵¹ Third place is shared with Nigeria.

[6]. Policymakers, both national and international, have taken a clear stand against the medicalization of FGC, stating that it impedes the fight for FGC abandonment [3]. A recent study in Egypt, however, showed that the medicalization of FGC can coexist alongside declining trends in the prevalence of FGC [263]. The current study intends to further explore these coexisting trends within the Kenyan context.

In Kenya, a strong variation in prevalence and medicalization percentages by ethnicity has been reported [45, 155]. Based on our own calculations using three waves of the KDHS (1998, 2008-2009, 2014), we estimated both prevalence⁵² and medicalization percentages,⁵³ and any changes in them across several birth cohorts for the 11 most prevalent ethnic communities in Kenya (Figures 12 and 13). These trends revealed a particularly interesting situation within the Kisii community: (1) decreasing prevalence percentages appear alongside increasing medicalization percentages; (2) while only 2% of the cuts within the 1960-1969 birth cohort were medicalized, this increased to over 60% for the 1990-1999 birth cohort; and (3) comparing the different ethnic groups, the youngest Kisii birth cohort had the second highest FGC prevalence, at 40%. Despite this latter trend, FGC prevalence in the youngest Kisii birth cohort has fallen considerably in comparison to the oldest cohort of Kisii women, born between 1960 and 1969, for which it was almost 100%.

The current paper presents an in-depth study of the medicalization of FGC within the Kisii community, aiming to fill a number of gaps in the literature. Firstly, while the FGC medicalization trend is widely recognized in Kenya and among the Kisii community [4, 22, 117, 121, 155, 264, 265], little is known about the social profile of mothers who opt to medicalize their daughter's cut, or their motives for doing so. Secondly, little is known about how this medicalization shift interacts with other possible trends in the practice, and especially with normative practices concerning FGC as a whole. In this study, we examine the shift towards the medicalization of FGC, applying both quantitative and qualitative methods, using the KDHS 2008-2009 and KDHS 2014 and interviewing 29 mothers from the Kisii community, respectively.

⁵² The prevalence percentages were calculated by dividing the number of girls and women cut in a certain birth cohort by the total number of girls and woman belonging to this birth cohort.

⁵³ The medicalization percentages were calculated by dividing the number of medicalized cuts that occurred in girls and women from a certain birth cohort by the total number of girls and woman cut belonging to this birth cohort.

Figure 12. FGC prevalence percentages by age 14 per ethnic group over 10-year birth cohorts

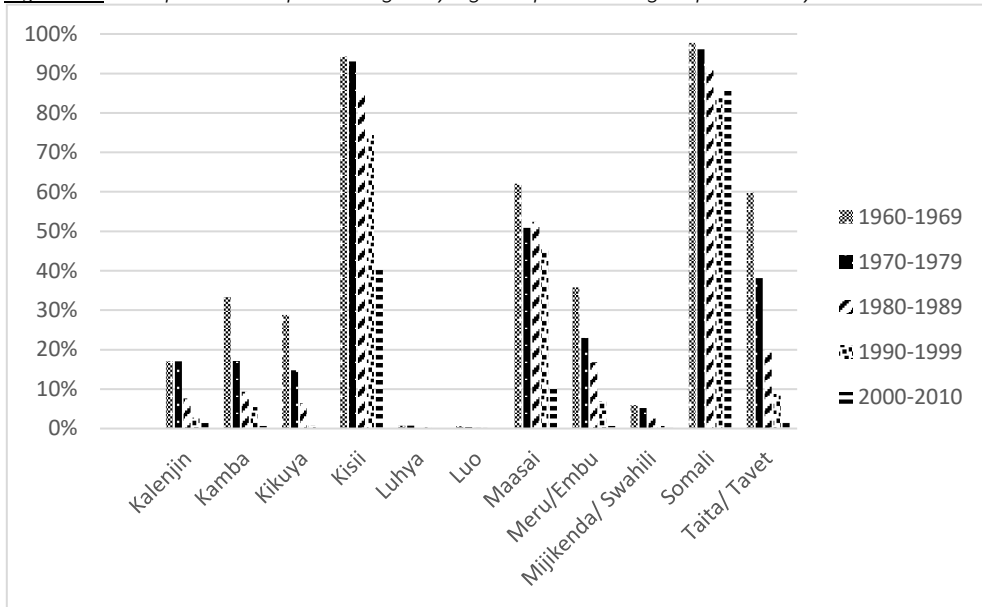
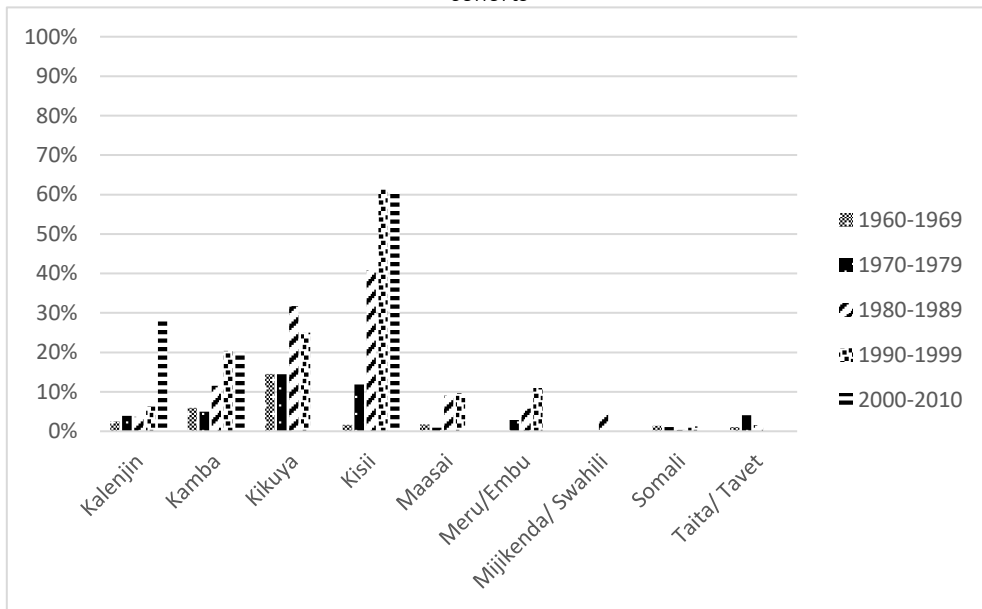


Figure 13. FGC medicalization percentages by age 14 per ethnic group over 10-year birth cohorts⁵⁴



⁵⁴ The Luhya and Luo communities are not included in the medicalization graphs, as FGC was too low to calculate realistic medicalization percentages.

Current FGC practice among the Kisii population

The Kisii (also known as Abagusii) traditionally inhabit Nyamira and Kisii County (Western Kenya). The type of cutting typically practised in the Kisii community is clitoridectomy [266]. Among the Kisii population, FGC is believed to be a traditional cultural obligation [121]. FGC is usually described as a rite of passage from childhood to womanhood: once a girl has undergone FGC, she is ready for marriage. The dominant perception is that uncut girls are a disgrace to the community and are not suitable candidates for marriage [264, 267]. The initiatory ritual of FGC involves more than the cut, as during a period of seclusion, girls learn about their sexuality and role as a woman and wife to their husband and mother to their future children [267]. Traditionally, when a girl completes her period of seclusion, she graduates to adulthood, which is celebrated in dance and song, as well as eating and drinking [264]. Previous research has shown that FGC is performed in order to conform to community expectations and to avoid social exclusion [264, 268].

More recent studies, however, have shown that, within the Kisii community, the practice of FGC has been subject to significant changes. While some authors argue the practice is declining, others state that the practice has gone underground and is now performed in secret to avoid government prosecution [121, 264]. In addition, FGC has shifted from a community event with public celebrations to events organized by individual families and conducted in secret [117, 265, 269]. Moreover, it has been argued that the age at which girls are being cut is also decreasing, in the belief that younger girls are better able to survive the experience and more easily convinced about the need to undergo FGC [121, 265, 269]. Some studies suggest the procedure itself has also changed, with less tissue being cut, and the procedure being described as less painful because of the use of anaesthesia [121, 265]. While the dominant type of cutting is clitoridectomy [266], pricking or nicking of the tip of the clitoris has become increasingly popular, and is usually carried out by trained health professionals [121].

A shift towards medicalization is also widely recognized within the Kisii population [117, 121, 124, 265]: health professionals are increasingly performing the FGC procedure [264, 265, 269]. While the practice used to be performed at home [264], it is now also increasingly performed at health facilities [265], with studies suggesting that, in recent years, trained health professionals have replaced traditional practitioners in the undertaking of FGC [121]. Previous research has shown that the primary motivation of mothers to medicalize their daughter's cut is

to reduce the risk of adverse health outcomes [121, 265]. Moreover, if the procedure is medicalized, it can be more easily hidden from outsiders [121], while it is also perceived as more modern [124]. Health professionals are often members of the practising communities and share their norms and values, thus they might also support the customary values of FGC, which may motivate them to perform the practice [117, 121]. Moreover, they might be driven by economic gain [117, 121], as the medicalization of FGC is increasingly seen as a commercialized practice [121].

5.4.3. Data and Methods

Quantitative methodology – The quantitative analyses were performed using data from the Kenyan Demographic Health Surveys (KDHS) from 2008-2009 and 2014. The KDHS is a nationally representative, cross-sectional, household sample survey with large sample sizes.⁵⁵ The data was collected using a standardized questionnaire in face-to-face interviews. The KDHS provides information on the ethnic identity of respondents, which enabled us to select members of the Kisii population [51]. Questions on FGC were included in both KDHS waves. Women who had heard of FGC, and who had a living daughter less than 15 years old, were asked questions about their own and their daughter's FGC status, as well as who performed the cut (a traditional circumciser or a trained health professional). In the KDHS 2008-2009, if a mother had multiple daughters who were cut, information was only collected for the daughter who had most recently undergone FGC. In the KDHS 2014, information was collected for all daughters, so here we selected the youngest cut daughter under the age of 15. After listwise deletion of missing values, the analytic sample consisted of 229 women from the Kisii community with at least one daughter who had undergone FGC.

Using this sample, we were able to describe the social profile of mothers who opted for a medicalized cut versus mothers who opted for a traditional cut for their daughter. The focus on the social position of the mother derives from the well-established association between women's social position and the practice of FGC [45, 51, 262, 270]. The operationalization of women's social position is based on Kishor's understanding of women's empowerment [193].

⁵⁵ Detailed information on sampling, data collection and the questionnaire is available in the relevant EDHS reports: KDHS 2008-2009: <https://dhsprogram.com/pubs/pdf/FR229/FR229.pdf>
KDHS 2014: <https://dhsprogram.com/pubs/pdf/fr308/fr308.pdf>

The variables included were: the respondent's gender views (ranging from 0 to 1, with higher scores indicating more tolerance of wife-beating, which implies a more traditional gender view), highest educational level, current employment status, media use (ranging from 0 to 3, with higher scores indicating higher exposure to media, e.g., radio, television and newspapers), age at first marriage, age at first birth, and urban residence. Table 7 presents the percentage distribution of these aspects of the social position of the mother by the type of cut.

Qualitative methodology – In collaboration with the Technical University of Kenya (TE as local supervisor), we also performed 29 in-depth interviews in the Kisii population in Kisii county, Kenya. Although the time and financial resources for conducting the interviews in Kenya were limited, we succeeded in conducting a sufficient number of interviews to have data saturation. Purposeful sampling was applied using different criteria [201-204]. The social network of the local researchers and one additional local contact were used to identify and recruit potential respondents. The targeted respondents were mothers with at least one inhabiting daughter⁵⁶ between the age of 8 and 14. Respondents were selected within Kisii county at locations varying in degree of rurality. While we succeeded in reaching respondents in both semi-rural and rural areas, it was difficult to reach respondents in the urban area of Kisii county as women living in this area tend to be less at home during day time when interviews were performed. The daughter's age range was chosen because FGC usually occurs around these ages, and therefore the daughter's cut was a relatively recent or ongoing event for these mothers, which increases the credibility of the data. In the interviews, we asked mothers about all their daughters to explore additionally how this decision-making possibly evolved or changed between older and younger daughters. We selected mothers who had daughters who had been traditionally cut, medically cut, or not cut (Table 8). Yet, daughters' FGC status was not a selection criteria, as we expected asking this sensitive information beforehand would put off potential respondents and create a barrier for respondents to participate in the research. All respondents lived in Kisii county, and all of them identified as members of the Kisii population (demographic characteristics in Table 9). Ethical approvals for this research were provided by the Ethics Committee of the Faculty of Social Sciences at the University of Antwerp and by AMREF Kenya and NACOSTI in Nairobi. These approvals were sought before the start of the project. In addition,

⁵⁶ For one respondent the daughter within this age range was actually a granddaughter that lived with her and for whom she was the primary care giver

the local Kisii county commissioner⁵⁷ gave us permission to conduct the research in the area under his/her jurisdiction.

All interviews were conducted by the first author (NVE) and four researchers who lived in Kisii county, who were recruited through the Technical University (TE) of Kenya. Prior to the data collection, NVE and the co-author, TE, organized a two-day interview training programme for the local researchers, introducing the topic of FGC and teaching and practising interview skills. After the local researchers had done their first interview, NVE discussed the quality of the transcript with the interviewer, providing feedback and suggestions to improve future interviews. All five interviewers ultimately conducted roughly the same number of interviews. The local researchers interviewed people in their local language (Kiswahili and Ekegusii). When the first author (NVE) performed the interview in English, she was accompanied by a local researcher who performed immediate translation.

The interviews were semi-structured face-to-face interviews (using a topic list) [201-204]. The topic list was based on a literature review and analyses of the KDHS data. The respondents were first asked about their socio-demographic profile, their household composition, their daily life, and social situation. The shift to the topic of FGC was made with a statement about the high prevalence of FGC, followed by a question on whether they knew about the practice. Questions about FGC were first related to the Kisii population as a whole. At the end of the interview, respondents were asked about the FGC status of their daughters, their motivation, and the decision-making process concerning the cut, and how it was organized. The interviews were conducted in the respondents' homes.⁵⁸ At the beginning of each interview, written informed consent was obtained, while the respondents were also assured of their anonymity and the freedom to decline to answer any specific question if it was perceived to be too sensitive or personal.

Information from the interviews was audio-recorded and transcribed verbatim if conducted in English, or transcribed in English after translation by the local researchers. The team leader of the local research team (MK) checked the transcripts for translation errors, especially when a lack of clarity was detected during the interim analysis. The first author

⁵⁷ Represents national administration at county level.

⁵⁸ Except for one, which was conducted in a house where the interviewee was working as domestic help.

discussed the transcripts with the local researchers to control for correct understanding within the specific context. During data collection, interview transcripts and field notes were reviewed and thematically analysed. This interim analysis helped us to monitor the quality of the data collected and to adapt the topic list when and where necessary.⁵⁹ It also supported us in monitoring data saturation. All transcripts were read, coded, and analysed by the first author (NVE), supported by the software NVivo 12. Independent analysis of a sample of interview⁶⁰ transcripts was done by several co-authors (SVdV, SA, EL), and the initial findings were discussed in the team to enhance the trustworthiness of the data. Coding schemes were compared in order to prepare a final code list. Researcher triangulation and reflexivity increased the credibility of the study. The final code list was analysed and sorted to identify overarching themes, and codes were examined in relation to each other to identify any associations. This analysis, reviewed by all co-authors of this paper, gave us new insights into both the prevalence of and medicalization trends in FGC in Kisii county.

5.4.4. Results

The descriptive statistics (Table 7) reveal the differences in the social positions of the mothers who opted for a traditional cut versus mothers who opted for a medicalized cut. The results demonstrate that women with secondary or higher education, and who use media more frequently, are more likely to opt for a medicalized cut. Women living in the poorest and poorer households are more prevalent within the group that opted for a traditional cut. Unexpectedly, women who are more tolerant of domestic violence were more frequent in the group that opted for a medicalized cut.

⁵⁹ E.g. after a certain number of interviews, we decided that we had to ask the respondents more specifically about what they meant when they said medicalization reduced the health risks of FGC.

⁶⁰ SVdV & SA analysed interviews 12, 17 & 47. EL analysed 11, 16, 23, 27 & 34.

Increasing medicalization and its drivers within the Kisii community

Almost all of the respondents mentioned that today, in most cases, FGC is practised by trained health professionals.⁶¹

You know, of late it's doctors who do it, unlike in the past [when] it was just an ordinary person. (R35)

The majority of people use health-care professionals. (R17)

Some of the reasons given for medicalized FGC were related to girls' health, such as the use of medication, hygiene, clean equipment used for each girl, less bleeding, less flesh cut, the possibility of follow-up by a trained health professional in the case of any health complications and a shorter healing period. Moreover, there was trust in health professionals and their skills:

You know, for the traditional [procedure] one can bleed so much, but for medicalization, health professionals know what to do. (R36)

This trust in the skills and experience of health professionals, together with the perceived reduction in health risk, sometimes led to the impression that medicalized FGC did not have an effect on a girl's health:

[...] today, [those] who go to health professionals, they are okay, cause they don't bleed a lot and are given medicines... She returns as healthy as she had left. (R47)

Medicalization thus seems to be perceived by some as a way to reduce harm, compared to the traditional way of cutting. In one case, medicalized FGC was even seen as a compromise between no cut – as preferred by the parents – and a traditional cut – as preferred and pursued by the mother's mother-in-law:

Because the mother-in-law insisted that she will come and pick the granddaughters to be circumcised by a traditional practitioner, me and my husband were forced to give in and

⁶¹ We do not distinguish between types of trained health professionals, as in the Kisii language (in which most interviews were performed) the term 'omoyagitari' is used, which is a broad term referring to any practitioner drawn from a health-care setting, whether a public hospital, private hospital or private clinic. There is no specification of the health professional's function or gender. Moreover, respondents assume they are trained health professionals.

agreed with the mother-in-law that we will circumcise our daughters using a health-care provider. (R11)

The choice of medicalization based on the health risk argument implies that mothers are informed about the health risks associated with FGC. This also implies that being informed about health risks created the opportunity to question the practice of FGC, making it a choice rather than a self-evident practice. Moreover, as also described in the quote below, decisions concerning FGC and its practitioners are said to be more informed. Information about FGC and its health risks are discussed through media such as radio and television, through 'barazas' (community gatherings), in seminars at schools, in church, and by anti-FGM organizations. Interestingly, health professionals were also mentioned among those who inform people about the health risks of FGC.

Traditionally, if I had powers (it is only that things have changed) female circumcision should be performed. But now, the health professionals have done research and told us that we damage our girls. That is why we have stopped. (R15)

In addition to medicalization being described as a way to reduce harm and as an informed choice, respondents mentioned that they preferred to go, or felt that they must go where other people had taken their daughters. In this case, choosing medicalization was more a form of copying behaviour than a deliberate choice.

You know, you see what other people do. When a group of people is doing something, you must also follow. I decided to take my daughters where other people were taking theirs. After some time, female circumcision was banned and I am not thinking of circumcising the younger ones. (R13)

Medicalized FGC was also mentioned as being more expensive than going to a traditional practitioner. This means that the choice may also be influenced by the financial capacity of the mothers or families. Additionally, it might be a matter of the availability of practitioners. Some mothers stated that there was no choice but to medicalize, as health professionals were the only remaining FGC practitioners and that there were no traditional cutters. Medicalization is thus seen as the only option; the given form of circumcision, rather than a conscious choice.

However, in most cases where a woman had opted to have her daughter cut, and the choice concerning the FGC practitioner had been made, finding a traditional practitioner or a

trained health professional who was willing to perform FGC was reported to be easy (only one respondent said it was difficult).

It was not difficult [to find a circumciser, in this case a trained health professional]. [...] she was offering that service. Many people were going there [hospital] and she was always present. (R13)

The role of medicalization and the increasing secrecy surrounding the practice of FGC

The FGM Act of 2011 was widely mentioned as emphasizing that FGC is illegal in Kenya. The law appears well known, as it was mentioned by all respondents and perceived to be strictly enforced. The respondents described two major responses to the law.

On the one hand, many respondents stated that today people have started to disapprove of the practice – especially younger generations – and are choosing FGC less frequently. Respondents stated that people are also more informed about FGC and its possible negative health consequences. This knowledge, combined with the fear of being caught by the authorities, has motivated people to abandon the practice.

In the past it was good, they used to respect that thing [female circumcision⁶²], but now, they don't want it, because a girl may bleed after circumcision and [it] may bring about a problem or [she might] even die. That's the reason I see most people declining and if the government has banned it, it has seen the reason. (R44)

Today, since the government banned it, and said you will go to jail, everybody refuses to cut their daughters. They don't want to get arrested and go to jail. It's better [for] a child to stay like that and not go to jail for 7 years... That's really hard. [...] It's 7 years jail or a fine of 50,000 [Kenyan shillings] cash. [...] Today, they prefer a girl to be like that, not cut. And life just continues as usual. (R47)

On the other hand, the abandonment of FGC is not completely deterred by the law, and it still persists. There are still people who believe in the value of the practice and thus support and

⁶² We chose the term 'female circumcision' to discuss the practice with the respondents. In Kisii, the practice is called 'Ogosara chinyaroka'. 'Ogosara' means 'circumcision' and 'chinyaroka' means 'girls'. In Kiswahili, the practice is called 'Tohara ya Kike'.

continue to perform it. For example, although several respondents claimed not to have cut their younger daughters, in total, almost half of their daughters had been cut (Table 8). Moreover, almost all of the respondents stated that people are continuing the practice, but that those who persist do it secretly. Thus, fear of the authorities has not only motivated some people to abandon the practice but also led to the practice going underground.

Female circumcision was still [occurring] in the past, but now they banned the practice [made it illegal]. It has become a challenge to circumcise. There are lots of challenges, there are those who do it secretly and others who don't do it at all, like in my case, I circumcised before it was banned. (R32)

Today, the practice may be carefully organized in secret and deliberately hidden. If the procedure is performed by trained health professionals, it is usually done in a private clinic or at the girl's home (or someone else's if in a group house). In this case, the health professional usually comes to the house at night or in the early morning so as not to raise suspicion in the neighbourhood. After the cut, the girl heals at home, or in some cases at the clinic.

She is well known in doing that for [a] long [time]. So she asked where my home was located and I explained to her. We exchanged contacts. The following morning, she called and came very early in the morning. She covered her head. I sent one of my children to pick her [up]. She performed the practice very fast and I escorted her using a different route. (R12)

Medicalization thus appears to play a role in better hiding the practice in some instances. One of the reasons given by mothers to explain why they opted for a trained health professional was that the girl would heal more quickly, meaning that she would not need to be secluded for a long time. This reduced the chance of neighbours noticing that FGC had taken place and reporting this to the authorities. The healing period for a medicalized cut was reported to be around one week. Based on this finding, medicalization appears to function as a way to continue the practice in secret and avoid being arrested. Medicalization made the practice less visible and detectable, which for some served as an argument in favour of it:

I saw the hospital one, [who] will circumcise, and she takes a few days to heal, you will not get caught, because if I bring the traditional one, she can come and circumcise her then she does not heal quickly and by the time, by... by the time she heals [...], you get caught. (R25)

In addition, the legal prohibition and the subsequent risk of being arrested and jailed seemed to have had an effect on the age at which girls were being cut, which was now done at various ages between 5 and 15. It was reported that the age of cutting is now younger, for the purpose of keeping the practice hidden, as older girls are able to take a stand against FGC.

I think, because we have been empowering those 10 years and above, and now they can say no or run away, [so] they have gone 7 years and below. (R18)

The shift from FGC as a community practice to a more individual and/or family affair

The respondents also pointed out that the performance of FGC had changed. While it used to be a social event that was publicly discussed, observed, and celebrated, today it seems to have become an individual or nuclear family affair. FGC in the Kisii population used to be celebrated openly. There was a gathering of relatives and friends, usually at the girl's home on the day she was cut, or after the period of seclusion when the girl had healed. There was a feast – and dancing and ululating – celebrating the fact that the girl had become a woman.

Recently, however, the event is no longer celebrated in the same way because it has to be kept secret. In addition, in the past, the cut was combined with various rituals that marked the passage of a girl into womanhood, such as lighting a fire and keeping it burning during the whole seclusion period. Today, only the physical practice remains, without the social rituals and celebrations. Those girls who are cut are instructed to keep it a secret.

Long ago, it [FGC practice] was open, even us, you know, we were circumcised long ago but it was open and it was with a ceremony, but these days they do it secretly because the government is against it. These days you cannot know if someone has circumcised their child unless you ... they tell you that they took their child to be circumcised. (R21)

Moreover, the decision to cut or not has become a more individualized choice. Respondents stated that now every family decides by themselves, while it used to be more embedded and discussed within the broader community.

Yes, at least now, you know during that time when we were growing, like that [girls being circumcised] was like, let us say, one way of a girl growing, it was a must [...] Like that should happen, but today there is guidance and counselling, then, like, you are left with the choice

... you are the one who will decide what to do, so like at least there is that awareness, you are told this ... something like this is dangerous ... or maybe it can help you this way, there are the negative and the positive sides, so it's up to you to decide. At least you are educated first. It is not like during that time when you were being forced to and you did not have a choice. (R27)

When we asked respondents about the people involved in the decision-making process, the answers were varied. Some mothers argued that it was a decision they made alone or privately within their household with their husband. Other respondents said that the decision was made with the broader family (especially grandmothers). FGC was also mentioned as a women's affair, discussed with female family members and/or friends. Remarkably, the decision to not cut a daughter was mostly made by the mother alone, or only with her husband.

However, the social pressure to cut still exists. Girls who are uncut might be called derogatory names, such as 'egesagane', which means 'uncut girl'. One respondent even reported that she cut her daughter because the daughter herself wanted to have the procedure, as all her peers at school were cut and she wanted to fit in.

She was the [one who] wanted to get circumcised, because her friends had been circumcised and she didn't want to be laughed at. Now that she went, they are now like friends. (R47)

Another daughter pretended to have been cut because she wanted to fit in at school:

She [daughter] has to pretend as if she's circumcised, she just says that to fit in. She hides among others, yeah. Cause that's not something to announce, maybe another person will reveal the secret, but that's not something to announce. [...] You pretend to be cut, just to fit in, and to stay with the others. I hope they won't force her in order to check her, but she has finished class 8. Yea, she has moved from there. (R41)

Generally, the pressure to cut was said to be interfamilial and usually from women of older generations. Several cases of intrafamilial pressure were discussed by respondents. Two mothers (R14 and R38) reported that their daughter had been cut without their consent or knowledge. In one case, the respondent's cousin took her daughter to be circumcised with her cousins; in the other case, it was the respondent's mother.

My sister-in-law told me that my daughter cried [that she wanted] to join her cousins and she decided to also include her. [...] She was circumcising her daughters and included mine because the girls used to be together. (R14)

Finally, one respondent also reported that she hoped to convince her son to cut his daughters (R12).

Social control: shifting from controlling conformity to the social pressure to cut towards controlling adherence to the legal prohibition of FGC

The shift of FGC to a merely physical practice, which is organized in secret and discussed and celebrated privately, as demonstrated above, has made the practice almost invisible. R38 told us that she organized the FGC of her daughter secretly and that she was *'quite sure that people don't know that she was circumcised'*. However, multiple respondents also told us that today they see no difference between cut and uncut girls and that the practice is losing meaning.

That thing has no benefit. My first two daughters were circumcised and the younger ones are not circumcised but I do not see any difference: 'mimi naona wako sawa' (I don't see any difference among them). (R11)

FGC is known as a strongly socially embedded practice; cutting is seen as the social norm and pressure is high. However, the fact that the practice is less visible makes it less subject to social control within the community.

At least now many people, like, are against it [FGC]. [...]. It was not like that past pressure of holidays here, the children are supposed to be taken, I do not know where ... at least now there is a difference. (R27)

For us women, we followed how things were done in the past. You felt that if you don't do it, your daughters will be looked down upon and they will be abused by others. Currently, I don't see whether there is discrimination (against uncut girls). (R13)

As girls' FGC status is less visible today, some believe that uncut girls are subject to less discrimination, social exclusion, and harassment. The majority of mothers who decided not to cut their daughters argued there were no negative comments by others. They said this was the

case because many girls today are uncircumcised, and there is no difference between cut and uncut girls.

If you were not circumcised at that (past) time, they used to distance themselves from you, cause you were not circumcised, and you would not become a big person [...]. But today I see it's okay, because most of the girls are not circumcised. (R47)

You see I am not the only one who has not circumcised my girls. There are many people who have not circumcised their girls. The girls will be just the same as others who are circumcised. There is no difference. I have never heard their comments. (R13)

Nevertheless, it seems that social control has not disappeared altogether but shifted – as now the practice is organized secretly to avoid community members reporting it to the police. This might indicate that social control has shifted from ensuring girls are cut to ensuring they remain uncut. The fear of being reported by outsiders was mentioned by several respondents.

In the past, [...] the majority of the people used to circumcise. Like, let us say, like this November-December holiday most of them you hear, everywhere children are circumcised. But today, it is not that easy to hear that someone has been circumcised, because it has been banned, if they get you, you are jailed. [...] They hide. [...] They just say, if you get caught, because the government has banned it, it is on the radio, the gazette and the television, if they get you, you are jailed, now they fear to talk about it. (R25)

For some, the law thus seems to act as a tool used by FGC opponents, giving them the opportunity to speak up against FGC. In addition, for girls at risk of being cut, the FGM Act may be a tool they can use to refuse. Several respondents told us that they did not cut their daughter because they refused and threatened to report them to the police (R26, R46, R21, R12). This is reinforced at schools and churches, where girls are taught to report if they are at risk of being cut or have already been cut.

My daughter refused [to be circumcised]. She even knows that it's bad. She says even [on] the radio [it was] announced not to get circumcised. She is also afraid of it, and if we tell her to get circumcised, she refuses, cause she hears [these things]. (R41)

FGC perceived as a vanishing practice within the Kisii community

Interestingly, while a few respondents stated that FGC would continue secretly, most respondents were convinced that FGC as a practice will cease in the future. Education about FGC was mentioned as the key factor. Educated women were less likely to cut their daughters, and it was argued that children should be educated because ultimately, this would stop the practice.

It [FGC] will end totally, totally there will be no one circumcising at all. It will end, in the next years it will end. The way we are still being ... being taught, will come to stop circumcising girls, so school studies will make people stop circumcising girls. (R23)

Moreover, it was suggested that the practice was losing meaning while seeing other people abandon FGC would eventually motivate the whole community to end the practice.

I see that, in future, this practice will end. Those individuals who are still doing it will reach a time when they will stop. Because a large number of people have stopped, those who are doing it secretly will also stop with time. The practice is losing meaning. (R11)

5.4.5. Discussion and Conclusion

The analyses conducted shed light on how a shift towards medicalization interacts with other shifts in the practice. In addition to the shift towards the increasing medicalization of FGC, respondents noted various other changes: decreasing support for the practice, decreasing FGC prevalence, increasing individualization and secrecy of the practice, and the procedure being performed at a younger age. While these shifts have been previously observed [117, 121, 124, 264, 265, 269], we explored the relationship between them, while also focusing on the general shift towards medicalization and its relation to decreasing prevalence.

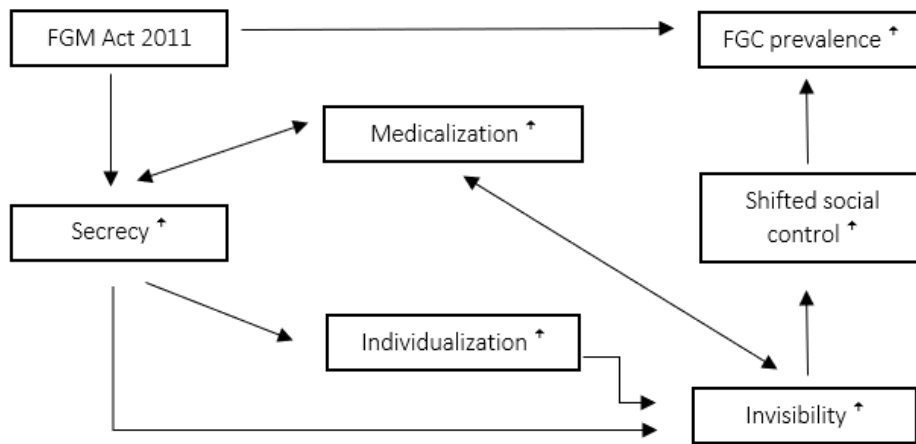
Examining the different shifts in the practice of FGC more closely, in relation to medicalization, we discovered that changes involve an intertwined web of processes (Figure 14). Firstly, our analysis of these shifts found that a decreasing prevalence was not counteracted by increasing medicalization. The prevalence and medicalization percentages graphs (Figures 12 and 13) showed that, within the Kisii population, the trend towards medicalization and decreasing prevalence coexist, thus challenging the assumption that the medicalization of FGC counteracts its abandonment [3].

Furthermore, the circumstances in which decreasing prevalence and increasing medicalization coexist appear to be connected and intertwined with several other events and shifts in the practice (see Figure 13). As mentioned above, the *FGM Act of 2011* had a vast effect on FGC practice within the Kisii population. On the one hand, the FGM Act motivated many people to abandon the practice, by informing them of the negative health consequences and through its strict control of FGC, introducing the possibility of fines and imprisonment. This could have contributed to an apparent *decrease in FGC prevalence*, which is clearly shown for the Kisii population in Figure 12. On the other hand, our qualitative data suggest that *secrecy surrounding the practice has increased*, with FGC going underground in order to avoid being reported to authorities. Thus, to a certain extent, FGC has become a secret practice which is no longer openly discussed, performed or celebrated. At the same time, despite FGC becoming a secret practice that apparently nobody talks about and which mothers or families decide upon alone, it is said to be easy to find practitioners through family or friends. In some instances, the practitioner is still 'known' to the community.

Based on this need for increasing secrecy, FGC is likely to be reduced to a mere physical act, and is no longer socially discussed or openly celebrated as a rite of passage. This has *turned the practice into a matter of individual and/or intrafamilial choice*. Because the practice is discussed and organized secretly and individually, *FGC has become less visible*. There is no longer common knowledge about which girls are cut and which not. As such, *social control seems to have shifted* from ensuring girls are cut, to ensuring girls are not cut, which is supported and reinforced by the legal ban.

Medicalization does not have a neutral status in relation to these changes in the practice, as it seems to be related to both the increasing secrecy and invisibility of FGC. As medicalized FGC is perceived to entail a shorter healing period, and thus a shorter period of seclusion after FGC, it contributes to the practice being hidden, as it is less detectable by outsiders. While medicalization might indirectly contribute to a decline in the prevalence of FGC, the direct effect of medicalization on FGC prevalence remains unclear. Nevertheless, despite the shift towards medicalization, almost all of the respondents believed the practice would end in the future.

Figure 14. Schematic representation of the intertwined process of shifts within the practice of FGC



Looking at the drivers of medicalized FGC within practising communities from both a quantitative and qualitative perspective, we investigated the social profile of the mothers who opted to medicalize their daughter’s cut and their motivations for doing so. In addition, we explored how these mothers perceived the shift towards the medicalization of FGC and how, in the Kisii population in particular, this related to the perception that FGC is being performed less and less within their community.

There were various motivations for mothers to medicalize a daughter’s cut. Opting for a medicalized cut was most often seen as a way to reduce or even eliminate health risks associated with FGC. This analysis thus confirms previous research in demonstrating that medicalization is adopted to manage health risks associated with FGC [6, 89, 121, 265, 269]. The perception of a reduced health risk if FGC is done by a health professional seems to be mainly based on greater knowledge of the health risks associated with FGC. Such health risks are argued to be mitigated through medicalization of the practice [264].

The medicalization of FGC can thus be seen here as an informed choice that will reduce health risks, and therefore as a harm-reduction strategy [125]. This is in line with Shell-Duncan’s finding that medicalization of FGC as a harm-reduction strategy may improve women’s health in a setting where the abandonment of the practice is not immediately attainable [6, 45]. However, one of our respondents went even further, stating that medicalized FGC eliminates all health risks and that she saw no harm in a medicalized cut. This reminds us that trust in health

professionals might give the impression that FGC is harmless and that FGC performed by health professionals might, in fact, legitimize the practice.

In addition to medicalization being a considered choice, it also became clear that it may be the result of normative behaviour. Collective identity and behaviour within an ethnic community have been shown to influence norms concerning the practice of FGC. It seems that community norms not only affect the FGC prevalence [45, 262] but also the medicalization of the practice. In our study, medicalization seems to have become the new community norm, and was perceived by some respondents as 'the way FGC is done'. The 'convention' hypothesis [45], which states that once a critical mass of the population ceases to practise FGC, abandonment will accelerate, might also hold for medicalization [45]. Nevertheless, while medicalization might be a norm in this community, it might also be perceived as the only option. Various respondents stated that a traditional cut was not a valid option, and for some it was not even a possibility, since traditional practitioners were scarce.

The association between women's social position and FGC prevalence also seems to hold for the medicalization of FGC. Mothers who were higher educated, who had frequent access to media channels and live in wealthier households tended to be more likely to medicalize their daughter's cut. The descriptive statistics, combined with reports from the interviews about medicalization being more expensive than traditional FGC, suggest that medicalization may also be stratified. This is in line with previous research, which found that medicalized FGC is a commercialized practice [121]. Christoffersen-Deb has also pointed out the higher costs of medicalized FGC, but adds that this higher cost acts as a minimal deterrent to families who wish to pursue FGC, and that, moreover, it is this economic insecurity that contributes to maintaining the practice [117]. In the same line, none of the respondents reported that their choice was limited due to financial capacity. The relationship between medicalized FGC and women's social position has been empirically substantiated in the Egyptian context [25, 42], but to date, this was not the case in the Kenyan or Kisii context. The stratification of medicalization is a consistent finding within the literature on various medical interventions (e.g., fertility [271]) [93, 96].

Limitations. Our study has some important limitations. The birth cohorts ranged from 1960 to 2010. Unfortunately, we could not include girls who were born after the FGM Act was implemented in 2011. Moreover, for the quantitative research, we only chose to conduct a statistical analysis of the ethnic Kisii population. This choice was based on the importance of Kisii

community norms regarding FGC [45, 262]. However, this led to a low number of respondents, making a more sophisticated analysis beyond descriptive statistics impossible. Moreover, an important limitation of the qualitative research is the possible bias in the reported information due to the legal ban. This limitation might be relevant to both the KDHS respondents and the respondents in our own qualitative research. To minimize this bias, the first author (NVE) and local researchers actively attempted to gain the trust of the interviewees by ensuring their anonymity and explaining the neutrality of the research and its independence from the government. Nevertheless, we can assume that respondents' answers may be socially desirable and sometimes deceivable, especially with respect to planned FGC or FGC that occurred after the procedure was made illegal. Finally, we regret that we were not able to interview women living in the city centre of Kisii county.

Conclusion. The current research examined the prevalence and medicalization trends over birth cohorts within the 11 largest ethnic communities in Kenya. We found that the Kisii population presented a unique opportunity to explore the medicalization of FGC because there is a substantial increase in the medicalization of FGC alongside decreasing FGC prevalence percentages. The combination of increasing medicalization and decreasing prevalence percentages is unusual, in light of the assumption that medicalization counteracts the abandonment of FGC [3].

We gained insight into the profile of mothers opting for a medicalized cut for their daughter and their motivations. We learned that there are many reasons to medicalize FGC. Medicalization is chosen as a form of harm-reduction, with some seeing it as a legitimate alternative based on their trust in health professionals and, in some cases, based on the belief that medicalized FGC is harmless. Moreover, medicalized FGC might be chosen when it is perceived as the new community norm, or when it has become the only option. The factors behind medicalization are thus complex.

Moreover, medicalization should be considered in relation to other shifts in the practice of FGC; as an intertwined web of processes. While we did not find a direct effect of medicalization on decreasing prevalence, based on the respondents' stories, it became apparent that medicalization might be contributing to the organization of the practice in secret and in making it less visible within the community. This invisibility might in the long term lead to reduced social pressure to conform to the social norms that girls need to be cut, as it can't no longer be

controlled openly within the community. In the long term this might contribute to decreasing FGC prevalence as this invisibility might make it easier for women to refuse to have their daughter cut.

Interventions focusing on medicalization should keep in mind that the reasons for and consequences of the shift towards medicalization are not unambiguous and independent of other factors. There are various drivers of medicalization which are intertwined in a web of multiple shifts in the practice of FGC. We believe it would be of interest to conduct further research on this complex context, to better understand when medicalization is facilitated and under what conditions it leads to decreasing FGC prevalence. Moreover, we agree that the role of health professionals in promoting the abandonment of FGC should be further explored.

Table 7. Women's social position differentiated by daughter's cut being traditional or medicalized, for Kisii ethnicity, KDHS 2008-09 and KDHS 2014 (unstandardized unweighted)

Measures	Traditional cut			Medicalized cut		
	N	%	Mean (SD)	N	%	Mean (SD)
Tolerance domestic violence	55		0.2759 (0.35734)	174		0.4055 (0.35487)
Highest educational level						
No Education	1	1.8%		7	4%	
Primary Education	42	76.4%		100	57.1%	
Secondary Education	11	20.0%		63	36.0%	
Higher Education	1	1.8%		5	2.9%	
Frequency media use	55		0.6598 (0.54113)	174		0.8927 (0.68326)
Currently employed						
No	7	13.0%		20	11.4%	
Yes	47	87.0%		155	88.6%	
Age at first marriage	55		18.81 (5.235)	174		18.87 (4.347)
Age at first birth	55		18.1099 (3.14120)	174		18.4850 (3.03327)
Place of Residence						
Urban	7	12.7%		24	13.7%	
Rural	48	87.3%		151	86.3%	
Household Wealth						
Poorest	7	12.7%		19	10.9%	
Poorer	25	45.5%		55	31.6%	
Middle	13	23.6%		65	37.4%	
Richer	9	16.4%		23	13.2%	
Richest	1	1.8%		12	6.9%	
Total	55	23.9%		174	76.1%	

Table 8. FGC status daughters of respondents

Respondent number	Daughters	Daughters' age range	Cut Daughters	Medicalized cuts	Traditional cuts	Non cut Daughters
11	4	16 - 26	2	2	0	2
12	4	8 - 35	2	2	0	2
13	4	6 - 17	2	2	0	2
14	1	14	1	0	1	0
15	2	12 - 14	2	2	0	0
16	3	7 - 12	1	0	1	2
17	4	12 - 26	2	1	1	2
18	3	3 - 10	0	0	0	3
21	2	7 - 11	0	0	0	2
22	2	6 - 8	0	0	0	2
23	2	9 months - 7	0	0	0	2
24	1	9	1	1	0	0
25	1	10	1	1	0	0
26	2	10 - 13	0	0	0	2
27	3	4 - 11	0	0	0	3
28	2	9 - 11	0	0	0	2
29	2	14 - 18	0	0	0	2
32	4	<i>unclear</i>	4	4	0	0
35	3	1 - 14	2	2	0	1
36	2	8 - 18	2	2	0	0
37	1	9	0	0	0	1
38	1	12	1	0	1	0
41	1	14	0	0	0	1
42	8	7 - married	8	8	0	0
43 ⁶³	3	12 - 32	2	0	2	1
44	2	13 - 20	1	1	0	1
45	6	8 - 18	0	0	0	6
46	1	10 - 13	0	0	0	1
47	4	3 - 14	1	1	0	3
Total	75		35	28	4	38

⁶³ 2 daughters one inhabiting granddaughter (who is the on who remained uncut).

Table 9. Demographic characteristics interviewees

Respon-dent number	Year of birth	Residen ce	Marital status	Educational level	Daily life occupation	Financial status
11	1975	Rural Urban	Married & abandoned	Secondary uncompleted	Business	Moderate
12	1969	Rural	Married	Primary uncompleted	Agriculture	Poorer
13	1984	Rural Rural	Married	Primary uncompleted	Agriculture	Moderate
14	1983	Rural	Married	Primary uncompleted	Business	Moderate
15	1986	Rural	Married	Primary uncompleted	Casual labour	Poorer
16	1982	Rural	Married	Secondary completed	Business	Moderate
17	1970	Rural	Widowed	Primary uncompleted	Agriculture	Poorer
18	1981	Rural	Married	College	Social worker	Moderate
21	1977	Urban Rural	Widowed	Secondary completed	Business	Poorer
22	1993	Rural	Married	Secondary uncompleted	Housewife	Moderate
23	1989	Rural Urban	Married	Primary completed	Housewife	Poorer
24	1994	Rural Urban	Married	Secondary uncompleted	Housewife	Poorer
25	1994	Rural Urban	Single	Secondary completed	Casual work	Moderate
26	1978	Rural	Single	College	Business	Poorer
27	1988	Rural	Married	College	Business	Moderate
28	1975	Rural	Married	Secondary uncompleted	Agriculture	.
29	1980	Rural	Married	Secondary completed	Agriculture	Moderate
32	1959	Urban Rural	Married	Secondary uncompleted	Agriculture	.
35	1986	Rural Rural	Married	Primary uncompleted	Agriculture	Moderate
36	1969	Rural Rural	Married	Primary uncompleted	Agriculture	Poorer
37	1989	Rural	Married	Primary uncompleted	Business	Poorer
38	1986	Rural	Single	Secondary uncompleted	Business	Moderate
41	1978	Urban Rural	Widowed	Secondary uncompleted	Casual labour	Poorer
42	1968	Urban Rural	Married	Secondary completed	Agriculture	Moderately rich
43	1963	Urban Rural	Married	Secondary uncompleted	farmer	Moderate
44	1987	Urban Rural	Married	Secondary completed	Agriculture	Moderately rich
45	1978	Urban Rural	Married	College	Lab-technician	Moderately rich
46	1979	Rural Urban	Married	Primary completed	Agriculture	Poorer
47	1978	Rural Urban	Married	Secondary completed	Agriculture	Poorer

6. Conclusion

Writing the current PhD dissertation, I aimed to contribute to the understanding of the shift towards the medicalization of FGC from the perspective of practising communities – focusing on the Egyptian and Kenyan contexts. I aimed to contribute to answering the question: ‘Why do mothers opt to medicalize their daughters’ cut and how does this decision relate to her social position within her community?’. More specifically, I firstly aimed to explore the association between FGC medicalization trends and a girl’s risk of being cut (Research Objective 1). Secondly, I aimed to explore the association between the mother’s social position and her decision to cut her daughter or not and, if so, whether to medicalize this cut or not (Research Objective 2). Thirdly, I looked at how social norms concerning FGC and its medicalization influence this association (Research Objective 3). These first three research objectives – which are focused on the Egyptian context – were approached by conducting statistical analyses using the Egyptian Demographic Health Survey (EDHS). Finally, I aimed to further explore the mothers’ motives for medicalizing their daughters’ cut, in a context where the shift towards medicalization was accompanied by a steep decrease in FGC prevalence. This was done by conducting a qualitative study in Kisii county, Kenya.

In this final chapter, I will discuss the central conclusions of this PhD dissertation, as well as the limitations of my research and the most important implications for future research. Firstly, I will summarize the main findings for each research objective. Secondly, I will discuss several limitations of my research and develop suggestions for further research to address these shortcomings. Finally, I will end with a summary of the main conclusions.

6.1. Main findings for each research objective

6.1.1. Research Objective 1: To explore the association between FGC medicalization trends and a girl’s risk of being cut (Egyptian context)

The first step in approaching Research Objective 1 was to map both prevalence and medicalization trends in the practice of FGC. This showed the importance of a regional approach, as demonstrated by Figure 9 and 10 (p. 66), which shows substantial variation between regions both in the pace of increasing medicalization and decreasing prevalence. Comparing 13 to 19 year olds from different birth cohorts, this study showed that FGC prevalence is rapidly decreasing within the Egyptian context. In contrast to existing research, the findings are based

on the younger age groups (i.e., the groups that were most at risk of FGC at the moment of data collection). Therefore, while the currently available research on this topic was based on samples of the entire reproductive female population (15-49 years), this study provided a more accurate indication of the current shifts in the practice. It showed that prevalence percentages were decreasing quite rapidly in various regions, especially from 2000 onwards.

Moreover, the study evaluated the medicalization trend by mapping annual medicalization percentages, whereby the total number of girls cut in a certain year was the denominator, and the number of cuts performed by a health professional was the numerator. Looking at this mapped medicalization trend, we observed that while FGC prevalence was decreasing in the 13 to 19 age group, the girls that were being cut were increasingly cut by trained health-care providers rather than by traditional cutters. This mapping of both prevalence and medicalization trends was the first indication that increasing medicalization and decreasing prevalence coexisted within the Egyptian context.

The effect of medicalization percentages⁶⁴ on a girl's risk of being cut was shown to be squared: when medicalization percentages within the reference group (girls aged 13-19) are low, there is no significant association with a girl's risk of being cut, but once medicalization percentages are sufficiently high – estimated to be from about 40% onwards for an average 12-year-old girl – they are significantly and negatively associated with a girl's risk of being cut. Thus, the risk of girls being cut significantly decreases with higher medicalization percentages: the higher the regional medicalization percentages are, the lower the risk of girls being cut. This is even more pronounced in mothers who received an education, compared to mothers who have not received an education.

In Article 3 (Chapter 5.3), we included medicalization percentages⁶⁵ in the analyses, looking at the association between the mother's social position and the likelihood of daughters

⁶⁴ Annual medicalization percentages ($\frac{\text{\#medicalized cuts}}{\text{\#total cuts per year}}$) were calculated for all women in the households from which respondents were included in the EDHS women's samples for 2005, 2008 or 2014. A five-year time lag was installed in the analyses (see methodology in Article 1).

⁶⁵ Medicalization percentages were aggregated calculations of daughters aged 12-20, about whom mothers were questioned in the women's samples of EDHS 2005, 2008 or 2014 – six-year birth cohort. This resulted in medicalization percentages for the birth cohorts: 1984-1990, 1991-1996, 1997-2002, of which the latter were included in the analysis as outcome variables; but for which a time lag was installed looking at FGC norms by including medicalization percentages of the previous birth cohort in the analyses.

being cut by a health professional, in comparison with both being traditionally cut and not being cut. Introducing medicalization percentages into the analyses revealed that if medicalization percentages are high, women are most likely to not cut their daughters. While within a region where medicalization percentages are high, mothers are more likely to medicalize their daughter's cut compared to opting for a traditional cut, the increasing likelihood of abandonment, and thus not cutting daughters is highest.

We concluded that increasing medicalization percentages were occurring in parallel with decreasing FGC prevalence. This, combined with the negative effect of higher medicalization percentages on a girl's risk of being cut, empirically shows that the shift towards medicalization does not necessarily counteract a decrease in FGC prevalence – which is in contrast to the assumption that medicalization counteracts abandonment of FGC.

6.1.2. Research Objective 2: To explore the association between the mother's social position and her decision to medicalize her daughter's cut or not (Egyptian context)

In both the second and third articles (Chapter 5.2 and 5.3), the research results on the relationship between the social position of the mother and the choice to medicalize her daughter's cut or not were presented. The first analyses – discussed in Article 2 (Chapter 5.2) – examined the social position of mothers in relation to the decision that was made for her youngest cut daughter: whether FGC was performed by a traditional practitioner (21%), or a trained health professional (79%). In Article 3, we not only compared mothers who had cut their daughter(s) but also mothers whose daughter(s) were not cut. Within the sample of mothers with at least one daughter between 12 and 15 years old,⁶⁶ 50.8% of these daughters had been cut by a trained health professional, 12.3% by a traditional practitioner and 36.9% were not cut.

⁶⁶ If there were multiple daughters within this age range, the youngest was selected for the analyses (see methodology in Article 3 – Chapter 5.3).

Our research⁶⁷ found that mothers who received at least a primary level of education and who were from wealthier households, were more likely to medicalize their daughter's cut. This finding is in line with the current empirical evidence on medicalization processes which point out that medicalization is often socially stratified [93, 96]. It is also in line with previous research on the association between women's socioeconomic position and the medicalization of FGC [44, 55, 130, 272]. Several factors may explain this association: (1) Mothers' household wealth and economic resources may determine her financial capability to opt for a medicalized FGC. (2) Having experience in consulting health professionals on other issues throughout her life may enable her to turn to health professionals when she deems it necessary, and thus might indirectly motivate her to turn to health professionals to conduct her daughters' FGC [44, 96]. (3) Mothers who obtained relatively higher levels of education may have additionally incorporated more knowledge of the possible impact of FGC on health and individual and human rights through their education [82], and may thus have an increased awareness of the potential risks of FGC [29, 44]. Mothers having both the financial capability as well as knowledge about and access to health care, as well as knowledge about the potential risks of FGC, may have better access to medicalized procedures [6, 96].

While the vast majority of the available research on the association between the social position of the mother and FGC has focused on indicators of her social position outside the household (e.g., her level of education and the availability of financial resources), this dissertation also examined the association with indicators of empowerment within the household. Two factors related to mothers' social position within the household were significantly associated with a higher likelihood of medicalizing a daughter's cut compared to choosing a traditional practitioner. Firstly, a smaller age difference between spouses, and secondly, sharing the decision-making within the household. While our study was the first to examine how these dimensions related to the medicalization of FGC, the findings are in line with research on related topics; for example, women in low-income countries who have more

⁶⁷ Here, we refer to Articles 2 and 3. Descriptive statistics introducing the qualitative research within Kisii county, discussed in Article 4, show that women who received secondary or higher education, use media more frequently and live in richer households are more likely to be found within the groups opting for medicalized FGC for their daughter compared to opting for traditional FGC. However, no statistical analyses were performed, as the sample was small. Therefore, we do not consider these results when discussing Research Objective 2 (RO2).

decision-making power within the household devote a greater proportion of their resources to child-centred expenditures than women with less household decision-making power [234].

An additional potential mechanism explaining the association between women's social position and the medicalization of FGC is that medicalized FGC may act as a status symbol. The economic ability of mothers to cut their daughters in a medical context would thus contribute to their social status [121]. However, our results showed that younger mothers, mothers who have received higher levels of education, and wealthier mothers are more likely to abandon the practice than to medicalize their daughter's cut. It thus seems that fully rejecting the practice of FGC requires an even stronger social position than that held by those who opt for medicalization. As we reflect on medicalized FGC as a status symbol, it might possibly be that women with a very high social position do not need FGC as a status symbol to safeguard their social standing.

6.1.3. Research Objective 3: To explore how social norms concerning FGC and its medicalization influence the association between the mother's social position and her decision concerning her daughter's cut (Egyptian context)

The decision concerning a daughter's cut occurs in a normative context, where the practice is surrounded by social norms and expectations (see 2.2.2.), and it is thus not exclusively dependent on a mother's social position.

In a high-FGC prevalence context, we expected that mothers with a high social position and with negative attitudes towards the practice, would be more likely to medicalize their daughter's cut. Based on harm-reduction logic, it can be assumed that mothers attempt to reduce the health risk by medicalization, while still conforming to social norms [6, 125]. Our results indeed showed that in a context where the prevalence of FGC is high, mothers are more likely to medicalize their daughter's cut than to opt for a traditional cut. These mothers were more aware of the negative health consequences of the practice, which is in line with previous research [82, 257]. Since social pressure is one of the main reasons for maintaining the practice of FGC [11, 54, 56], mothers with a relatively higher social position may prefer a medicalized cut as a way of conforming to the social norm of FGC, while at the same time believing they are reducing the harm related to the practice [6].

In addition, we found that mothers who held negative attitudes towards FGC were not significantly more likely to opt for a medicalized cut, but were nonetheless more likely to not have their daughter cut at all. Medicalization thus appeared to be a way to conform to social norms in an assumedly less harmful but still culturally acceptable way [6], rather than a compromise between abandonment and traditional methods – as women who want the practice to discontinue would rather abandon the practice, and this likelihood of medicalization is higher in the case of high FGC prevalence.

Finally, our results showed that when a mother lived in a governorate where the FGC medicalization percentage was high for girls who were recently cut,⁶⁸ the mothers were more likely to medicalize their daughter's cut than to opt for a traditional cut. Medicalization of FGC might thus act as a social norm itself and may have become the new culturally dominant view on how FGC should be performed.

6.1.4. Research Objective 4: To explore the mothers' motives for medicalizing their daughter's cut or not, in a context where the shift towards medicalization is accompanied by steep decreases in FGC prevalence (Kisii context)

We explored the mothers' decision-making on their daughters' cut and its medicalization by conducting qualitative research in Kisii county, Kenya. As a first step, we estimated medicalization and prevalence trends by birth cohorts⁶⁹ – while previous studies have merely looked at period trends – for both the Kenyan and the specific Kisii context [4]. We observed that within the Kisii community there was a steep decrease in FGC prevalence accompanied by increasing medicalization percentages.

Our descriptive statistics relating to the Kisii community in Kenya showed that, within this group, women who received secondary or higher education, used media more frequently, and lived in wealthier households, were more likely to be in the groups who opted for a medicalized rather than a traditional cut. The qualitative research in Kisii county additionally showed that respondents experienced no barriers to obtaining a medicalized FGC (e.g., financial barriers or

⁶⁸ The six-year birth cohort preceding her daughter's⁶⁸ birth cohort (see methodology Article 3 – Chapter 5.3).

⁶⁹ Ten-year birth cohorts from 1960-2010, looking at FGC status by the age of 14.

problems in accessing health professionals). While medicalized FGC was indicated to be more expensive, no financial barriers were reported. This is in line with Christofferen-Deb [117], who found that a higher cost of medicalization is a minimal deterrent to families who wish to pursue FGC for their daughters, although it is economic insecurity that contributes to maintaining the practice, as it might safeguard women's marriageability. Moreover, the respondents we interviewed indicated that it was easy to contact and access a health professional who was willing to perform FGC.

Our research identified various drivers of the medicalization of FGC. Firstly, reasons for opting for a medicalized cut were related to the girls' health (e.g., use of sterile equipment and medication, performing the cut in hygienic circumstances, cutting less flesh and causing less bleeding) and to the belief that health professionals are better able to reduce the health risks of the practice. Opting for medicalization to reduce health risks is in line with a harm-reduction strategy. Medicalization of FGC may be perceived as a way to improve women's health while continuing the practice, which the community considers necessary, making its abandonment is not immediately attainable [6, 45].

The respondents in our qualitative research in Kisii county told us that the importance given to reducing the health complications of FGC is driven by increasing knowledge of the health risks of FGC and that this information about FGC and its health risks is disseminated through media (radio, television), community gatherings, in seminars at school, in church and by anti-FGC organizations. Increasing knowledge of the health risks seems to have encouraged both the medicalization of FGC and its abandonment, especially in combination with the increasingly strict ban of the practice through the 2011 FGM Act.

Secondly, the mothers also reported that they wanted to use the same practitioner as others, and it appears that community effects in this respect are not only applicable to FGC abandonment but also to its medicalization [45, 240]. In other words, medicalization seemed to have become the new community norm. Some respondents pointed out that medicalization was even seen as the only option; it was argued that only health professionals were available to perform FGC and that traditional practitioners no longer existed. Medicalization of FGC thus might act as a social norm – but might also be perceived as the only option.

Moreover, for the qualitative article on Kisii in Kenya, we specifically analysed the shift towards medicalization as a part of an intertwined process, in which decreasing prevalence and increasing medicalization of FGC do not exist independently from each other; both are closely connected with several changes and shifts in the practice. The anti FGC law – FGM Act 2011 – was found to be well known among the Kisii community, and it has led the practice to become a more individualized act occurring within close family circles. The legislation has also increased the need for secrecy within practising communities, and medicalization might actually be compatible with this secrecy. Medicalization was seen as a way to more readily hide the practice, as it shortens the healing and seclusion period – which reduces the risk of the community becoming aware that a girl has been cut.

This increased need for secrecy, potentially assisted by medicalization, has led to decreased visibility of the practice, to which there are two possible consequences. On the one hand, increasing secrecy and decreasing visibility might suggest the practice has gone underground. On the other hand, the lack of visibility might decrease the strength of FGC as a social norm. When it becomes difficult to know which girls are cut, it becomes more difficult for the wider community conventions to control the social obligation of girls to be cut. As a consequence of the FGC Act 2011, social control might have even shifted from ensuring that girls conform to the social norm to be cut, to ensuring that a family has not broken the law. Based on this qualitative research, we could not establish a direct effect of medicalization on FGC prevalence, but we can conclude that medicalization might indirectly contribute to decreasing FGC prevalence.

6.2. Limitations and suggestions for future research

While this Ph.D. makes meaningful contributions to our understanding of the shift towards medicalization of FGC, some limitations need to be acknowledged, which at the same time create opportunities for future research.

6.2.1. A critical evaluation of the current definition of the medicalization of FGC

The WHO definition of medicalized FGC – that we apply in the current dissertation - merely relates to the professional status of the FGC practitioner; and is thus rather restricted [90]. If medicalization of FGC would be framed within the broader definition of medicalization ‘as a process by which a non-medical problem, behaviour or a human condition is defined and/or treated as a medical problem’ [93], it would include FGC performed by applying any medical intervention [93, 96]. Moreover, in the literature on FGC, the term ‘medicalization’ refers to a broader conception of medical intervention, ranging from providing medical supplies for the surgical procedure, replacing traditional cutting instruments with sterile and disposable materials, to having operations in clinics or hospitals performed by trained nurses or physicians [4, 6, 83]. Many years ago in countries such as Kenya, Sudan and Somalia, traditional practitioners were provided with surgical supplies such as anaesthesia and prophylactic antibiotics [4, 273-276], and they even received training in how to perform FGC [110, 276, 277]. In addition to FGC being performed by a health professional, it may also be performed in health-care facilities, such as private clinics and hospitals – which is referred to as ‘clinicalization’ [4, 109]. In some settings (e.g., Indonesia and Nigeria), medicalized FGC is performed as part of the package of services for newborns in health facilities [91, 119].

This Ph.D. made use of the Demographic and Health Survey (DHS) data for Egypt and Kenya, which are valuable and national representative datasets that include data on the medicalization of FGC. While the datasets create many opportunities to examine the social correlates of FGC, they include a rather narrow measure of the medicalization of FGC (whether the procedure was performed by a trained health professional or by a traditional practitioner). Unfortunately, information on the circumstances in which the procedure was carried out or on which medical supplies were available during the procedure was not collected. This narrow definition of medicalized FGC could have resulted in measurement bias; respondents may have perceived the practitioner to be a trained health provider, while in reality, they might have no

medical training, despite using surgical tools, painkillers, and antiseptic [89]. This pseudo-medicalization may especially occur in countries where health systems are weak and where there is a shortage of trained health professionals [115, 119]. During our interviews in Kisii county, for example, a respondent told us that the wife of the hospital director performed the procedure, despite having no medical background. Nonetheless, the respondent perceived the procedure as medicalized.

To date, research is lacking on the actual medical skills that perceived health professionals have, as well as on the great variety in the equipment used when performing the procedure. In the same line, research that compares the health consequences of medicalized cuts versus cuts performed by traditional practitioners is scarce. Future research should recognize that the medicalization of FGC may include a variety of practices and may encompass diverse health risks as a consequence of various types of ‘health professionals’ being involved, the equipment used, and the circumstances in which the practice is performed.

6.2.2. A critical examination of measurement bias due to underreporting

FGC is a sensitive topic and an illegal practice in both Egypt and Kenya. As it is a self-reported practice in the DHS, this might lead to underreporting of the practice, selective non-response, or the provision of socially desirable answers. To limit this underreporting, the EDHS guidelines for interviewers state that they must attempt to find a space that is private and to take necessary measures to ensure that the respondent feels safe and answers honestly. Similarly, in our qualitative research, we aimed to put the respondents at ease and gain trust by taking sufficient time to discuss the information sheet and consent form, both of which mention the respondents’ rights and the research objectives. We explained the neutrality of our research and its independence from policymaking, the government, and the legal ban. Nevertheless, I am aware that despite these efforts, respondents’ answers might be biased and sometimes socially desirable. Not one respondent interviewed in the Kenyan study told us they were planning to cut a daughter, which may reflect the overall decreasing FGC prevalence trend, accompanied by less social pressure, but it might also be partially explained by respondents’ unwillingness to discuss planned cuts after the legal ban on FGC was implemented.

Several studies have examined the reliability of self-reported FGC status by comparing it with a clinical assessment. These studies found that reliability is particularly low concerning the self-reporting of FGC type, and to a lesser degree, whether a woman had been cut or not [278]. Self-reports on FGC status could thus serve as a proxy measure for FGC prevalence but not for FGC type [279]. This may be particularly problematic for future research on the medicalization of FGC, as the latter is associated with less severe cutting. Unfortunately, future research on this association should be cautious, particularly when using self-report measures of the type of FGC.

6.2.3. A critical examination of the presence of causality

Our quantitative research points to an interesting association between medicalization trends and girls' risk of being cut, and between women's social position and social norms and the likelihood of a girl's cut being medicalized. The data used enabled us to conclude that increasing medicalization percentages can coexist alongside a decreasing risk of girls being cut. Moreover, higher social position, FGC prevalence, and medicalization percentages suggest the likelihood of these cuts being medicalized. However, given that the DHS is a cross-sectional, rather than a longitudinal dataset, we were unable to estimate whether this decreased risk of being cut is indeed driven by increasing medicalization percentages and whether a woman's social position is indeed the driver of medicalization, as other confounding factors may be at play. While previous research and gender and medicalization processes helped us to formulate realistic hypotheses and interpretations of these results, it is important to acknowledge this limitation regarding causality.

6.2.4. A critical examination of mothers as primary decision-maker concerning FGC

Throughout the study, I focused on the mother's decision-making, without including information on other stakeholders that might be involved in this decision-making process. This choice was based on previous research, which identified the mother as the primary decision-maker in relation to the practice [27, 259-261]. However, many mothers might not make this decision alone and might be influenced by what they observe in their community. Social norms were incorporated into our quantitative analyses in terms of FGC prevalence and medicalization percentages. However, we did not include information on extended family members, although

previous research shows that they may have an important role in this decision-making process [29, 272].

Nevertheless, our qualitative research results for Kisii county showed that decision-making has become more individualized and was made by the mother alone or with close family, such as her husband or mother/mother-in-law, thus confirming the important role of mothers. This finding, combined with previous research pointing to the primary role of mothers in the decision to cut or not cut her daughter [27, 259-261], thus confirmed our decision to focus on mothers. However, the influence of other stakeholders in the decision to medicalize a daughter's cut has rarely been studied. With the exception of Yount [29], who found that a father's educational level and the existence of an extended family are associated with a higher likelihood of medicalized FGC, to the best of our knowledge, no research to date has examined how other people may influence the decision to medicalize FGC. While I focused on the social profiles and the motives of the mother, further research should broaden this focus by including other family members.

6.3. Conclusion

The general aim of this Ph.D. dissertation was to explore why do mothers opt to medicalize their daughters' cut and how does this decision relates to her social position within her community. To achieve this aim, we applied the sociological perspective of medicalization processes to the practice of FGC. This Ph.D. research project aimed to indicate the drivers behind the medicalization of FGC, focussing on mothers within the practising communities, and its association with girls' risk to be cut. Based on our research, I arrived at three major conclusions concerning these drivers, which will be discussed below.

Firstly, many mothers who opt for medicalized FGC do so because they believe that it will reduce the possible health risks related to the practice. Both our quantitative research in the Egyptian context and our qualitative research in Kisii county showed that the major driver behind the choice to opt for a medicalized cut for a daughter was to reduce possible harm to the health of the girls. The motivation for reducing health risks partly fits the harm-reduction logic as described by Marlatt [125], and as applied to the notion of the medicalization of FGC as a possible public health strategy considered by Shell-Duncan [6]. Looking at the harm-reduction strategy within the practising community, we thus conclude that the shift towards medicalization is driven by the motivation to reduce danger to health and thus emerges from the bottom up – in addition to being motivated by top-down communication on potential health risks related to the practice [6].

While harm-reduction as a possible public health strategy (e.g., in Egypt and Indonesia) has been or might be seen by policymakers as a temporary measure in the fight for the abandonment of the practice of FGC [89, 109-111], for practising communities, it is seen as a safer way to conform to a social norm and maintain a cultural and traditional practice. Women who want their daughters to be cut look for less harmful, but still culturally acceptable, alternatives [6], rather than considering medicalization as a compromise between abandonment and traditional methods.

Secondly, the medicalization of FGC is socially stratified. Statistics in both the Egyptian context and the Kisii community show that medicalization is stratified, with women who are higher educated and living in more wealthy households especially more likely to medicalize their daughters' cut. Educated women are often among the first to become aware of the potential risks of FGC and/or to be in a position to decide not to cut their daughters [29, 44]. The reason

for this appears to be that women with a certain social position have the power to be involved in making these decisions and have the final say on how the practice should be performed, while possibly remaining dependent on the practice of FGC in order to preserve the family system and their family's social position. While they want to avoid health risks for their daughter, they still appear to lack sufficient extrafamilial opportunities that might provide alternative ways to ensure social inclusion while taking a stance against the practice [25, 34, 41].

Thirdly, the medicalization of FGC seems to act as a new social norm in itself. In addition to the advocacy of medicalization as a rational response to a need for the reduction of harm, it can also be copying behaviour; for example, it may be based on the observation that most other people in the community have gone to health professionals to have FGC performed. FGC is a strongly socially embedded practice [35, 53, 54], such that continuation or abandonment implies an interaction between personal beliefs and community characteristics [35]. It seems that the tipping point, where personal beliefs become the main drivers because social pressure has decreased, has not yet been reached; however, increased medicalization seems to indicate a shift in the practice that is supported by the community, reducing health risks while still complying with social norms. FGC remains a practice that is based on beliefs concerning what it is to be 'a good woman' and a 'desirable partner'. The practice still involves gender expectations and notions of appropriateness, and it is still considered to be one way that women express gender in the light of normative expectations concerning femininity and female sexuality [29, 31-33]. Nevertheless, this social norm might come to encompass new norms concerning the way the practice should be performed – including in a medicalized way. In other words, community effects are not only applicable to FGC abandonment, but also to its medicalization [45, 240].

While medicalization might act as a social norm, our qualitative research in Kisii county showed that the medicalization of FGC increasingly individualizes the practice and sometimes even functions as a tool to increase its secrecy. The medicalization of FGC has, in this context, changed the event from a social ritual to an individualized practice; a shift which exhibits parallels with the medicalization of childbirth [280], as well as with medical interventions such as hymenoplasty [281], in which medical procedures are used to enhance secrecy. Moreover, in line with Halfmann [282], we acknowledge that the processes of medicalization and demedicalization might occur simultaneously at different levels. The shift from a health framework to a human, women's, and children's rights discourse at a national and international

level might be seen as a form of demedicalization – as it can suggest a deliberate intention to cease framing FGC as a medical and health issue. Notwithstanding this possibility, the health approach still has its effects on the practising communities, within which people turn to health professionals to perform the practice – and thus medicalization is still ongoing, while demedicalization is not occurring. These counter-movements reveal an area of tension between national and international policies and their detachment from the practising communities.

Finally, our research challenges several assumptions that are found within the contemporary discourse surrounding the medicalization of FGC. Our research contradicts the assumption that medicalization counteracts the abandonment of FGC as such. In both of the contexts examined (Egypt and Kisii county), the increasing medicalization of FGC coexists with decreasing FGC prevalence. Moreover, this association suggests that increasing medicalization trends decrease the likelihood of girls being cut. These findings challenge the idea that the practice of FGC is maintained within practising communities by the shift towards medicalization. Having the practice performed by trained health professionals does not seem to legitimize it, despite the existing perception that harm is reduced when FGC is performed by a health professional.⁷⁰ Moreover, FGC is possibly already seen as legitimate by its proponents, independently of who the practitioner is [209]. Going even further, we can possibly infer that medicalization itself could be an indicator of increasing risk awareness that might, in turn, function as a driver of FGC abandonment. Moreover, our findings suggest that medicalization might transform FGC from a community issue to a less visible and individual practice, which leads to reduced social pressure to perform it, as the importance of FGC to a woman's social position declines when conformity to social norms is no longer as visible [6, 45, 89].

To conclude, during my Ph.D. trajectory, I started with a focus on the medicalization of FGC, assuming that the question was: 'To medicalize or not to medicalize?' Now, at the end of my Ph.D. trajectory, I am unable to answer this question definitively, as various new and inter-related questions have arisen along the way. I believe that the assumptions made in the general discourse on FGC should be challenged and empirically researched. Moreover, I think it is important to clarify what is at the core of the discussion. If the question, 'To medicalize or not to medicalize?' is raised, the aim of raising it should be clarified. Is the aim to fully abandon the

⁷⁰ Article 3 points out that women who opt for medicalized FGC are more aware of FGC-related health risks.

practice, or is it to decrease the health risks related to the practice? In addition, there is a need to identify whose aim it is: that of a practising community itself or of national or international policymakers? As my PhD research has shown, the medicalization of FGC is a complex multi-layered issue that cannot simply be reduced to the decision made by the mother but is instead driven by multiple facets. This research contributes to the scarce evidence on the question of whether medicalization should be encouraged or discouraged. When I started this Ph.D., I simply asked myself whether the medicalization of FGC was a 'good' or 'bad' practice; now, at the end of the trajectory, I ask myself: 'To medicalize or not to medicalize: is that the question?'

7. Appendixes

7.1. Reflection on the position of the researcher

We are all born and raised in a certain context and we all grow up with certain “glasses”; the way we look at the world and the norms and values we cherish. As a white middle class woman in Belgium, I grew up in a context where an emphasis was placed on individual, children’s, women’s and human rights – within this context, FGC is typically framed as an example of harmful cultural practices, with the abolishment of FGC explicitly mentioned in the sustainable development goals. From my personal point of view – and the importance I attach to the framework mentioned before - it is therefore difficult not to condemn the practice of FGC performed on minor girls, without their consent, and resulting in both short term and long term physical and mental health consequences. Condemning the practice of FGC happens almost ‘naturally’ as within the context I live today these rights are almost self-evident values to be pursued. Moreover, as a feminist who believes that women’s emancipation is only reached when women can take ownership of their own life and future, it’s hard not to condemn a practice that limits the opportunities of girls to decide on how they want to live their life, before they are mature enough. Inevitably, my values and norms have coloured my position on the practice of FGC. Moreover, I build upon research which is often written from the same perspective – almost all research on FGC is performed from an anti-FGC narrative; and almost no research explicitly supporting the practice can be found. Based on these narratives, opposing the practice feels as as the most ‘logical’ position. Yet, it’s important to me to state clearly that opposing the practice doesn’t mean judging the women who conform to the practice – as they are acting within a very different context, perspective, norms and values.

Anti-medicalization narratives are also mainly based on the principles of human, children’s and women’s rights. Moreover, the trends towards medicalization of FGC triggered a shift within the FCG discourse from a health framework towards a human and women’s rights discourse. Based on these rights, medicalization of FGC is condemned by international and national organizations: no forms of FGC should be tolerated - no matter how minimal. The argument that the medicalization of FGC will legitimize the practice and therefore counteract its abolishment has taken precedence over the idea that medicalized FGC might prevent and reduce health risks. Yet, almost no empirical evidence can be found for the first argument and it seems that these debates are now more ethical and moral discussions, which means the influence of our personal

“glasses” is even more present. As a person and a researcher, I strongly value evidence-based policies, which is why I chose to focus on medicalization of FGC so that I can challenge these glasses by empirically examining the assumptions made. I both acknowledge and challenge the norms, values and perspectives within my context. Throughout this Ph.D. my major argument is that the discussions on the practice should be more nuanced. This reflection on the necessity of a nuanced debate, going beyond moral and ethical arguments, motivated me to focus on medicalization of FGC and more specifically to focus on the drivers of medicalization and the effect of the shift towards medicalization within practicing communities.

Therefore, within this reflection towards my position, I particularly want to make the argument for the necessity of nuance when discussing the practice of FGC and the shift towards medicalization. When I tell people about the topic of my Ph.D., I often get the question: so what do you think “to medicalize or not to medicalize?”.

I always state that I don’t have the knowledge to answer the question just like that and, moreover, that I don’t believe this question can be answered in this form in the first place. The gap in knowledge about the shift towards medicalization remains high and my aim as a researcher is to contribute to fill these gaps and expand the knowledge available. Furthermore, I believe it’s important to first understand how and if this question is answered within practicing communities and specific contexts. Previous research has shown that simply condemning a cultural practice does not work; we first must comprehend what is happening. I argue for nuance within the discussion concerning medicalization of FGC; and to look at the practice within and from the perspective of practicing communities rather than debating medicalization based on moral and ethical arguments. That is what I strive for as a researcher: conduct research in order to increase the knowledge base and produce empirical research results which can be used for evidence-based policies.

As it is important to strive for neutrality as a researcher, it’s necessary to reflect on your personal reference framework. Additionally, both as a person and researcher I think it is pertinent to strive to understand the views of practicing communities. While I can never completely take off the glasses I developed in the context I grew up and live in – I can and should reflect on them, be aware of my mentality and adapt my behaviour. I can strive towards neutrality as a researcher and especially try to put on the optics of people having other coloured glasses. I aimed to do this throughout my Ph.D. trajectory in particularly three ways.

Firstly, as stated above I challenge the anti-medicalization narrative based on ethical and moral dilemmas and I argue that it should be evidence-based rather than based on value judgments. Within my research on medicalization of FGC, I take a neutral standpoint towards the medicalization of FGC. I do not argue pro, nor contra medicalization. I state that we should increase knowledge on this shift within the practice. Therefore, within my research articles I aim to report my empirical results as objective as possible. I strive for research aiming to expand empirical research in order to expand the knowledge needed in order to develop evidence-based policies

Secondly, I was convinced of the importance of learning from practicing communities – as they are the experts. From the very beginning I decided not to do research merely from the academic “ivory tower”. Quite early in my PhD trajectory – which was initially set to be a quantitative thesis on the comparison of FGC prevalence between countries – I decided to focus on medicalization of FGC and especially focus on the drivers behind the medicalization of FGC within the practicing communities. Moreover, I argued the importance of including qualitative research. I felt, and still feel, the urge to discuss the topic of FGC with practicing communities – who are undoubtedly the experts. For me, the greatest disappointment within this Ph.D. trajectory is that I was unable to do the planned research in Egypt due to COVID19, therefore missing an additional perspective from practicing communities.

Thirdly, I actively thought about how to approach the women within the practicing communities as neutral as possible during my field work; as well as when reporting about my research. Reflection is an opportunity to actively adapt our way of working and behaviour. I tried to use my outsider position in a beneficial way as I could easily ask for explanation through my inexperience and outsider perspective. I aimed to go in conversation with practicing communities in order to understand the practice without imposing an opinion or judgement of values, in order to get insights. Moreover, my choice for the terminology used – FGC – is also chosen from this point of view. I strive for neutrality by aiming to do research without applying judgement values.

7.2. Ethical approvals

7.2.1. Ethical approval 1: UA Ethics Committee for the Social Sciences and Humanities



Universiteit
Antwerpen

Professor Sarah Van De Velde
Faculty of Social Sciences
University of Antwerp
Belgium

Professor Steven Gillis
Chair Ethics Committee for
the Social Sciences and Humanities
City campus
Lange Winkelstraat 40 (S.L.306)
2000 Antwerpen

REFERENCE
SHW_19_07

Date
23 April 2019

RE: Decision Ethics Committee for the Social Sciences and Humanities, file SHW_19_07

FINAL POSITIVE CLEARANCE

Dear professor,

The independent Ethics Committee for the Social Sciences and Humanities (EA SHW), installed by the Executive Board of the UAntwerp (03.07.2012) formulates a 'final positive clearance' with regard to your project **"Understanding mother's decision-making concerning the medicalization of her daughter's genital cut, in Kenya."**

In its decision making process, the EA SHW is guided by the Royal Decree implementing the Act of 30 July 2018 on the protection of privacy in relation to the processing of personal data; the Royal Decree of May 7, 2004 regarding experiments on the human person; the General Data Protection Regulation; the EU-"Guidance Note for Researchers and Evaluators of Social Sciences and Humanities Research"; the deontological code for the researcher (Annex ZAP-statutes UAntwerp), and the vademecum of the Belgian Privacy Commission on scientific research and privacy.

The committee has evaluated the following documents:

- Application file for ethical clearance of the Ethics Committee for the Social Sciences and Humanities of the University of Antwerp (version 2, submission date 8/4/2019)
- Document 1: Methodology of the study (version 1, submission date 13/2/2019)
- Document 2: Instructions for the participants (version 1, submission date 13/2/2019)
- Document 3: Information sheet for the participant (version 2, submission date 8/4/2019)
- Document 4: Consent form for the participant (version 2, submission date 8/4/2019)
- Document 5: A list of ethical committees to which the research proposal will be presented (version 1, submission date 13/2/2019)
- Local researcher confidentiality document – processor agreement (version 1, submission 8/4/2019)

The committee has no further remarks and therefore formulates a final positive clearance.

Kind regards,

Professor Steven Gillis
Chair Ethics Committee for the
Social Sciences and Humanities

7.2.2. Ethical Approval 2: AMREF Health for Kenyan NACOSTI ethical approval



Amref Health Africa in Kenya

REF: AMREF – ESRC P663/2019

October 8, 2019

Nina Van Eekert
University of Antwerp
Sint-Jacobstraat 2-4, 2000 Antwerp, Belgium
Tel: +32 2655003/+32 472379659
Email: Nina.vaneeekert@uantwerpen.be

Dear Nina Van Eekert,

RESEARCH PROTOCOL: UNDERSTANDING MOTHER'S DECISION-MAKING CONCERNING THE MEDICALIZATION OF HER DAUGHTER'S GENITAL CUT, IN KENYA.

Thank you for submitting your protocol to the Amref Ethics and Scientific Review Committee (ESRC).

This is to inform you that the ESRC has reviewed and approved your protocol. Your application approval number is P663/2019. The approval period is from October 8, 2019 to October 7, 2020 and is subject to compliance with the following requirements:

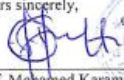
- a) Only approved documents (including informed consents, study instruments, advertising materials, material transfer agreements etc.) will be used.
- b) All changes including (amendments, deviations, violations etc.) are submitted for review and approval by Amref ESRC before implementation.
- c) Death and life threatening problems and severe adverse events (SAEs) or unexpected adverse events whether related or unrelated to the study must be reported to the Amref ESRC within 72 hours of notification.
- d) Any changes, anticipated or otherwise that may increase the risks or affect safety or welfare of study participants and others or affect the integrity of the research must be reported to Amref ESRC within 72 hours.
- e) Clearance for export of biological specimen must be obtained from the relevant government authorities for each batch of shipment/export.
- f) Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- g) Submission of an executive summary report within 90 days upon completion of the study to the Amref ESRC.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <https://oris.nacosti.go.ke/> and obtain other clearances needed.

Please do not hesitate to contact the ESRC Secretariat (esrc.kenya@amref.org) for any clarification or query.

Yours sincerely,

fr


Prof. Mohamed Karama
Chair, Amref ESRC

CC: Samuel Muhula, Monitoring & Evaluation and Research Manager, Amref Health Africa in Kenya.

7.3. Information sheet participants

INFORMATION SHEET PARTICIPANTS - SOCIAL SCIENCES AND HUMANITIES STUDY
--

Participant Number: _____

Understanding mother's decision-making concerning the medicalization of her daughter's genital cut, in Kenya

You are invited to participate voluntarily in a research study with regard to mother's decision-making concerning the medicalization of her daughter's genital cut. Before you consent to participate in this study, it is important to read this form carefully. In this information and consent form the goal, tests, benefits, risks and harms linked to the study are described. Your rights are described below as well. No promises or guarantees regarding the outcomes of the study can be made. You have the right to ask questions concerning the possible and/or known risks/harms of the study.

Goal and description of the study

This is a scientific study in which about 40 participants are expected to participate, of which 0 in Belgium.

The goal of this study is to gain understanding concerning mother's decision-making concerning the medicalization of her daughter's genital cut, in Kenya. This qualitative research is part of the doctoral study of Nina Van Eekert.

You are invited to take part in this study because we are interested in your story concerning the decision-making on your daughter's genital cut.

You can participate in this study by participating in this interview or focus group.

Appointing authority

The appointing authority of this study is the University of Antwerp, Belgium.

Duration of the study

You will be asked to participate in the study for approximately 2 hours.

During the course of the study you will be interviewed at least 1 time.

The overall study will take about one year.

Tests performed in the study

If you agree to participate in the study and you meet all necessary requirements for participation, the following tests and experiments will be performed: an interview or focus group. The interview or focus group will be video- and audio recorded, in order to do it's transcription as detailed as possible and assuring the accuracy of what was said and done.

Voluntary participation

Your participation in this study is strictly voluntary and you have the right to refuse participation. At any time, you have the possibility to either participate in the study or to discontinue your participation.

When you accept to take part in this study, you will be given this information sheet for safekeeping and you will be asked to sign the attached consent form.

The researcher can put an end to your participation at any time, even without obtaining your explicit approval, for one of the following reasons:

- you do not take heed of the instructions for participation in this study;
- it becomes clear you do not comply with the necessary requirements for participation in the study;
- the appointing authority discontinues the study because of other, currently unknown reasons.

You have the right to discontinue your participation in the study at any given time, even after having signed the consent form. You do not have to motivate discontinuing your participation. The decision to discontinue your participation will not cause you any harm or loss of benefits.

In case of discontinuation all data will be destroyed.

Risks and harms

The content of the interview might be sensitive. The respondent is free to decline to answer any specific question if perceived as too sensitive or personal

Benefits

We cannot guarantee you that, if you consent to take part in this study, there will be a direct benefit for you.

Reimbursement

The appointing authority funds the researcher/research group to perform this study/the study is performed on the initiative of the researcher.

The travel and parking fees linked to your participation will be reimbursed. All tests linked to your participation in this study are to be financed by the appointing authority.

Privacy policy

Your identity and participation in this study will be treated with the strictest of confidentiality. You will not be mentioned by name or other identifiable token in the files, results and publications relating to this study. In accordance with the guidelines for good research practice, your file, in as far as this is relevant for the study, will be viewed by representatives of the appointing authority and affiliated parties in order to verify the validity of the study data and test results. Your identity will be kept secret given that personal information will be indicated only by means of a unique participant number (coded)/ all data will be acquired anonymously.

Your personal information might be transferred to governmental agencies, an ethics committee or other researchers and/or organizations that cooperate with the appointing authority. Your information might be transferred to other branches of the appointing authority and/or organisations that work together with the appointing authority in this country and in other countries where the norms regarding personal data management might be different or less strict. The appointing authority will adopt the same norms with regard to privacy within the legal framework of the countries involved.

Your information will be electronically (i.e. by computer) or manually processed and analyzed to determine the results of this study. You have the right to ask the researcher which data will

be acquired in the framework of the study and to which purpose. You also have the right to be granted access to your personal information and ask for changes if necessary. The privacy protection is prescribed by the EU General Data Protection Regulation law of May 25 2018, regarding privacy protection and it's Belgium framework.

If you consent to participate in this study, this implies that you consent to the use of coded data for the purposes described above and the transfer to the aforementioned people and/or agencies.

Notice of new information (if relevant for this study)

Sometimes during the course of the research study new information comes to light with regard to the study topic. If this is the case, you will be informed of all new information that might influence your willingness to continue your participation in the study.

In this case you will be asked to sign new information and consent forms. If you decide to discontinue participation because of this new information, this is possible at any time.

Ethics committee

This study has been reviewed by the independent ethics committee, i.e. the committee of social sciences an humanity, which has formulated a positive advice on 23/4/2019.

Contact in case of questions with regard to the study

If you believe to have suffered damages linked to the study or if you have questions with regard to the study now or during the course of your participation, you can contact Nina Van Eekert (Nina.VanEekert@uantwerpen.be). I'm aware that if I need further counselling on female genital cutting I can contact Tammary Esho (+254722319369). For issues concerning your rights as participants, you could contact Amref ESRCC (AMREF Kenya, Wilson Airport, Lang'ata Road, Office Tel: +254 20 6994000, Fax: +254 20 606340, P.O Box 30125-00100, Nairobi, Kenya).

Thank you in advance for having taken the time to read through this information sheet. For further information, you can always contact Nina Van Eekert (Nina.VanEekert@uantwerpen.be).

Date:

Signature researcher(s): _____

Contact information: _____

Signature head of the research group: _____

Contact information: _____

7.4. Consent form for participants

<u>CONSENT FORM FOR PARTICIPANTS</u> <u>SOCIAL SCIENCES AND HUMANITIES STUDY</u>
Understanding mother's decision-making concerning the medicalization of her daughter's genital cut, in Kenya.
<p><i>Part for the participant:</i></p> <p>I, the undersigned (<i>name and surname</i>) _____ hereby confirm that I have been informed about the content of the study and have received a copy of the information sheet for participants and the consent form. I have read and understood the information. The researcher of the study has provided me with sufficient information with regard to the conditions and duration of the study and its possible effects. Moreover, I was given sufficient time to consider the information and to ask questions, to which I have received adequate answers. I'm aware that if I need further counselling on female genital cutting I can contact Tammary Esho (+254722319369). If I have any questions about the research I can contact Nina Van Eekert (+32472379659, nina.vaneekert@hotmail.com). If I have questions about my rights as participant I can contact Amref ESRC (AMREF Kenya, Wilson Airport, Lang'ata Road, Office Tel: +254 20 6994000, Fax: +254 20 606340, P.O Box 30125-00100, Nairobi, Kenya).</p> <p>– I have fully understood that I can discontinue my participation in this study at any given time after having informed the executing researcher, without this having any disadvantages.</p> <p>I give permission to the research team conducting this research (<i>Univeristy of Antwerp – centre for Population Family and Health, Ghent University – International Centre for Reproductive Health & Technical University of Kenya</i>) to have access to my file. The information I provide will be treated as strictly confidential. I am aware of the goal for which these data will be collected, processed and used within the framework of this study.</p> <p>I agree to the collection (including the video- and audiotaping of the interview), processing and use of these data, as described in the information sheet for the participant.</p>

I am aware and I agree that this data can be used for further research about this topic, by
*UA – center for Population Family and Health & Ghent University – International Centre for
Reproductive Health & Technical University of Kenya*)

I voluntarily agree to participate in this study and to cooperate. I am willing to provide
information regarding my background and participation in possible follow-up studies.

I'm aware of the possibility to be informed about the research results.

- I want to be informed about the research results
- I do not want to be informed about the research results

Date: _____

Signature participant (or legal representative): _____

Part for the researcher performing the study:

I, the undersigned (*name and surname*) _____ hereby confirm that I have
discussed the procedures as described in the information form with
_____, during which I have explicitly indicated the possible risks or
harms linked to the study. I have explicitly asked whether any ambiguities or questions
remained and have answered these to the best of my abilities. Furthermore, I confirm that
_____ has given permission to participate in the study.

Date: _____

Signature researcher(s): _____

Contact information: _____

Signature head of research group: _____

Contact information: _____

7.5. Drop-off questionnaire

8. Interview number:

Information interviewers		
Name		
First name		
Organization		

Information interviewee	
Name	
First name	
Age	
Place of origin	
Place of residence	
Community	
Marital status	
Highest educational level	
Daily life occupation	
Paid employment (yes/no)	
Household income comes from	
Self-perceived wealth quintile	

7.6. Topic list

Introduction

Welcome. Thank you for being here.

[Introduce yourself]

Before we start I would like to repeat the aim of our research, and the importance of your collaboration. As well, I would like to go over some practical arrangements and make sure you feel comfortable doing this interview.

As a research team we conduct research on mother's decision-making related to daughter's female circumcision. In our research we want to explore how mothers come to the decision on whom will circumcise their daughter(s). For our research it is very important to hear your personal stories and experiences; they are of great value.

During the interview I will ask you various questions – on which there are no wrong answers. We are very much interested in your personal experiences and your story on the subject.

The interview will be taped, but once the interview is transcribed the audio will be stored password protected and after ten years storage time. The video, audio and transcriptions will only be available for the researchers included in this project. Moreover, the data will be anonymized – meaning that your name will appear in no documents apart from the information and consent sheet, which we will run over now together.

[run over information and consent sheet]

Do you have any more questions? If everything is clear to you, we can start off with the interview. Is it okay if we start recording now?

[Semi-structured interview with topic list and example questions]

Ice breaker (combination with drop off)

First we would like to ask you some questions about your profile using this written drop-off questionnaire.

1. Can you tell me about your family composition?
2. What are for you're the most important values in raising your kids?

Opening questions – introducing the theme female circumcision

3. How do you think other people in your community (Kisii) think about female circumcision?

Prompts:

Who are others? Mothers/Fathers/Women/Men/Elderly/Youth/Friends/Family/Most people

Can you give examples of situation in which you noticed that this was their (various others) opinion?

4. How do you think (various) others think about mothers who decided to not circumcise their daughter(s)?

Prompts:

How do you think (various) others think about mothers who decided not to circumcise their daughter?

How do you think (various) others will react to mothers who decided not to circumcise their daughter?

Can you give an example of negative reactions to mothers who decided not to circumcise their daughter?

Can you give an example of positive reactions to mothers who decided not to circumcise their daughter?

5. How do you think (various) others think about mothers who decided to circumcise their daughter(s)?

Prompts:

How do you think (various) others think about mothers who decided to circumcise their daughter?

How do you think (various) others will react to mothers who decided to circumcise their daughter?

Can you give an example of positive reactions to mothers who decided not to circumcise their daughter?

Can you give an example of negative reactions to mothers who decided not to circumcise their daughter?

Transition questions – to go to theme medicalization of female circumcision

Data and anecdotal evidence shows us that today, more and more female circumcisions are performed by trained health professionals such as trained nurses, midwives and doctors.

6. What do mother mothers in your environment decide regarding the practitioner of their daughters circumcision?

Prompts:

Who are others? Mothers/Fathers/Women/Men/Elderly/Youth/Friends/Family/Most people

What is the 'most accepted form' of female circumcision in your family?

What is the 'most accepted form' of female circumcision in your community?

If you look at your family who are the main practitioners of their daughters female circumcision?

If you look at your community who are the main practitioners of their daughters female circumcision?

7. How do you think other people in your community think about female circumcision performed by a trained health professional (doctor, nurse, midwife) versus a traditional practitioner?

Prompts:

Does this make a difference?

Do you think the value given by others to female circumcision varies depending on the practitioners?

Who are others? Mothers/Fathers/Women/Men/Elderly/Youth/Friends/Family/Most people

Can you give examples of situation in which you noticed that this was their (various others) opinion?

8. How do you think (various) others think about mothers who decided to let their daughter be circumcised by a trained health professional?

Prompts:

How do you think (various) others think about mothers who decided to let their daughter be circumcised by a trained health professional?

How do you think (various) others will react to mothers who decided to let their daughter be circumcised by a trained health professional?

Can you give an example of negative reactions mothers who decided to let their daughter be circumcised by a trained health professional?

Can you give an example of positive reactions to mothers who decided to let their daughter be circumcised by a trained health professional?

9. How do you think (various) others think about mothers who decided to let their daughter be circumcised by a traditional practitioner?

Prompts:

How do you think (various) others think about mothers who decided to let their daughter be circumcised by a traditional practitioner?

How do you think (various) others will react to mothers who decided to let their daughter be circumcised by a traditional practitioner?

Can you give an example of negative reactions mothers who decided to let their daughter be circumcised by a traditional practitioner?

Can you give an example of positive reactions to mothers who decided to let their daughter be circumcised by a traditional practitioner?

Questions regarding own decision-making
--

10. Can you tell us about the decision you made regarding circumcision for your daughter(s)?

Prompts:

How did you decide to circumcise your daughter?

What does the practice of female circumcision mean to you?

On which argumentations was this decision based?

What did you decide on the practitioner of your daughter's circumcision?

What steps did you take to arrange your daughter's circumcision?

Can you tell us about the event?

What is for you the difference between a traditional and a medical circumcision?

11. How did you get in touch with the practitioner of your daughter's circumcision?

Prompts:

How did you reach certain practitioners of female circumcision?

Who guided you towards this person?

Have you experienced barriers to reach certain practitioners? Which ones? Have there been ways to overcome them?

Have you experiences facilitator to reach certain practitioners? Which ones? Did you make use of them?

12. What does it mean for you to have the practice performed by a trained health professional/traditional practitioner?

13. What motivated you to let the practice be performed by a trained health profession/traditional practitioners?

Prompts:

What motivator was most important?

14. How do you think and react to mothers making another decision than you (traditional – medicalized – no circumcised)?

Prompts:

Can you give an example of how you thought or reacted to a mothers who decided to not circumcise her daughter?

Can you give an example of how you thought or reacted to a mothers who decided to let their daughter be circumcised by a traditional practitioner?

Can you give an example of how you thought or reacted to a mothers who decided to let their daughter be circumcised by a trained health professional?

15. Do you think your broader social environment played a role in your choice for the practitioner of your daughter's circumcision?

Prompts:

Who are others? Mothers/Fathers/Women/Men/Elderly/Youth/Friends/Family/Most people. Social Media – Traditional Media.

Can you describe situations in which others played a role in this decision-making – how they influenced you?

16. Did you received reactions on your decision regarding your daughter's circumcision?

Prompts:

Can you give an example of a positive reaction? How did you feel with this reaction?

Can you give an example of a negative reaction? How did you feel with this reaction?

Can you give an example of a moment that you felt judged because of your decision?

Can you give an example of a moment that you judged yourself for your decision?

(special attention for health and gender issues)

Closing questions

[interviewer summarizes important elements in decision-making process] and ask for feedback from participant

Ending question:

17. If you could give advice to mothers who in the near future should decide on their daughter circumcision – what would you say to them? Advice them?

Closing question:

18. Do you want to tell or add something before ending the interview? Is there something that we didn't discuss that you think to be interesting?

Wrap-up

That was the last question. Thanks a lot for your participation. If you have no more comments or questions, I will stop the taping.

Notification: The topic list might be adapted if deemed necessary by the researchers to provide relevant information to answer their research question. Moreover, the topic list and data collection method might change if data show this to be required. We will work with intermediate analyses to reflect on the information we collected and the one still required to answer our research questions.

7.7. Summary of research results for respondents

7.7.1. English version: Summary of research results for respondents

Dear participant,

First of all we would like to thank you again for your participation as a respondent within our study⁷¹: Exploring medicalization of Female Genital Cutting (FGC) in Kisii county Kenya.

As you mentioned to be interested in receiving feedback about the outcome of the research, we are proud to share with you a summary of the research results and main conclusions.

Our study focused on the Kisii tradition of female genital cutting, and we had a closer look at mother's decision-making relating to her daughter's cut, and who performs it (medical professional or not). We have interviewed 29 mothers having at least one daughter or granddaughter between 8-14 years for whom they are the primary caregivers. FGC status of respondents' daughters varied and included daughters who were traditionally cut, medically cut or uncut.

The most compelling findings from the interviews were:

- Almost all respondents said that FGC is widely practiced by healthcare professionals, which is called medicalization of FGC.
- Reasons given for medicalization are mostly related to a girl's health: use of medication, hygiene, less bleeding, less flesh cut, short healing period, possibility of follow up in case of complications and trust in health professionals⁷².
- An additional reason to medicalize is that respondents want to go for FGC where other people go; and they thus copy behaviour from people in their environment.
- Finding a health professional who wants to perform FGC was easy, so respondents said. Yet, FGC performed by a health professional was more expensive than a cut performed by a traditional practitioner.
- Respondents said that nowadays they are more informed about possible health risks of FGC, which might lead to medicalization of FGC but also to questioning the practice of FGC as a whole.

⁷¹ The research you took part in was a collaboration between the University of Antwerp, Ghent University, the Technical University of Nairobi and a team of four local researchers inhabiting Kisii county.

⁷² These are perceptions of respondents and no scientifically proven arguments.

- The FGM Act 2011 is well known by all respondents. The law led to increasing knowledge of health risks of FGC and fear to be caught when you continue the practice. Two major reactions to the law were described by the respondents: decreasing support for the practice of FGC and decreasing prevalence; and the practice going underground and being surrounded with more secrecy.
- Medicalization is mentioned to play a role in hiding the practice. The medicalized practice is carefully organized, is done in secret and hidden. Moreover, medicalized FGC is perceived to have a shorter healing period for girls and thus shortens their seclusion period making the practice less visible. Additionally, the age of girls that are cut is perceived to be reduced, probably also to hide the practice as older girls are able speak out against FGC.
- Most respondents said that FGC used to be a social affair, which is publicly discussed, observed and celebrated; but nowadays it seems to have become an individual or merely nuclear family affair.
- Some respondents said that FGC is now a secretive physical practice and less subjected to social control within the community. The social control might have shifted from controlling girls to be cut, to controlling whether they remain uncut because the government has banned the practice. However, social pressure to cut still exists to some extent.
- Interestingly, whilst few respondents state that FGC will continue secretly, most respondents were convinced that FGC as a practice will end in the future. Education and information of FGC is mentioned to be key.

If you have additional questions or like to comments on this findings, don't hesitate to contact the main research Nina Van Eekert (nina.vaneeekert@uantwerpen.be) or the local research team leader Martha Kieri (marthabossy@yahoo.com).

Thanks again for your contribution.

We wish you all the best,

Nina Van Eekert and Martha Kieri, on behalf of the complete research team



7.7.2. Ekegusii version: Summary of research results for respondents

Ase Oyominto,

Ritangani tokoira ribaga eri kogoakera mbuya mono as ogwancha koba oyomo obo ase baria banchete korwa amangana ase obotuki twakorete igoro ya koringoria ogosara kwa abana chinyaroka ase enchera ya ekenyagitari ime ya Gusii ase ense yaito ya Kenya.

Buna kwaganeti komanya nga obotuki obo ninki bwanyorete, twagokire gosanga amo naye ase enchera ya obwenge ayio twanyorete.

Obotuki bwaito nigo bwarengete ekemira kia omogusii ki ogosara abana chinyaroka.

Tokaringoria gochia ime mono igoro yookonacha ekina kiogosara abana chinyaroka egati yaabangina naende ningo ogosara (Omonyagitari gose Ogosara egegoro).

Ntwakwanete na abangina emerongo ebere na kianda (29) abwo babwate gose barenge abarendi ba abana abanyaroka gati ya emiaka etano na etato goika ikomi na ene (8-14) basarire ekenyagitari, egegoro gose tibasariri.

Aya iga akobwati naro twanyorete amanene korwa ase chinkwana twatwarete

- Ange abakwani bonisi nigo batebete nga ogosara kwa abana chinyaroka nigo kogokorwa na abanto baria basomerete obonyagitari eyio okorokwa ogosara gwe chinyaroka ekenyagitari
- Chisababi chiaruetwe gosara ekenyagitari chinyinge nigo chiare igoro ya afya ya omwana buna ogotumeka amariogo , obochenu, ogoetia amanyinga amake, konacha asinini, okobwena kwa bwango na okonyarekana kwomonyagitari gocha korora omwana kero kende omochando oise gotoka ekeru omwana asarirwe. Esababu ende neri inga abanto nigo babwate okwegena ase abasari basomerete obonyagitari.
- Esababu end neri inga abanto nigo bagosara abanyaroka kenyagitari ase engencho abanto bande bagokora bo. Nigo bakwegia keria abanto babaetanaine bagokora.
- Abakwani nigo batebete nga, konyora omonyagitari ogosara abanyaroka teri akongu gotatiga rigori nigo rire igoro kobua ogosara egegoro.
- Naende, abakwani mbatebete inga amatuko aya iga bamanyire mono igoro ya obobe bwogosara abana abanyaroka. Eke nakio gekogera bachiera abanyagitari nonya bwabwate chitangutangu igoro ya ogosara.

- Richiko riogotasara abana abanyaroka riomwaka 2011 ndiamanyekanete buya nabakwani bonisi. Richiko eri ndiagerete abanto bakamanya obobe bwogosara abanyaroka na bakaoboa okobwatwa ekero kwabunire richiko. Ase abanto bande, richiko eri ndiagerete bagatiga ogosara na igo ogosara gwe chinyaroka gokairana inse. Ensemo ende, richiko eri iga ndiagerete abanto bagachaka kwebisa ekero bagosara chinyaroka ase igo ogosara okwo gokaba obobisi obonene.
- Ogosara ekenyagitari ngokonya kore ase okobisa ogosara gwe chinyaroka. Ogosara okwo gokobangwa na gokorwa bobisi. Abanyaroka basarire ekenyagitari nigo bakobwena bwango naende mbari koba nyomba ngaki ntambe. Echio nachio chisababu chikogera ogosara kenyagitari gotari kororekana. Komenta nayio, emiaka yogosara yairanigwe inse kero kende as ogotaka kobisa engana eye as engencho abanyaroka abanene nabo barakane gosarwa.
- Abakwani abange nigo baatebete nga, ogosara gwe chinyaroka nigo kware egento kiabanto bonisi ekio kiare kogambwa maiso marore na abanto bagechengera ekero kiabeire. Korende ase amatuko abwango iga, ogosara kwabeire engana ya omonto bene gose engana ya enka.
- Abakwani bande nigo baatebete inga ogosara gwechinyaroka kwabeire engaña ya bobisi eyio abanto baetanaine batanyare koyebetereria. Abanto bono barure ase ogotaka abanyaroka basarwe na bono nigo batagete korenda tibasarwa gekogera eserekari yakanire ogosara gwe chinyaroka. Nonya nabo, banto bake ngosuguma bare abande basare chinyaroka chiabo.
- Egento giokogokia nkeri nga nonya abakwani bake batebete nga ogosara gwechinyaroka nkogenderere bobisi, abange nigo begenete nga ase amatuko are bosio, ogosara gwe chinyaroka nkoere. Chisemi na obomanyi igoro yogosara gwechinyaroka nabio biakwanetwe koba ebiechinguru ase ogotiga ogosara gwechinyaroka.

Onye kore na kobia konde gose okomenta igoro ya aya atebetwe ase obotuki obo, nabo ogokwana na omotuki omonene Nina Van Eekert (nina.vaneeekert@uantwerpen.be) gose omorai bwa abatuki korwa Kenya Martha Kieri (marthabossy@yahoo.com).

Mbuya mono naende ase chingaki chiao

Twakoganeiri amaya,

Nina Van Eekert na Martha Kieri, gotenenera egonde yonsi yakorete obotuki obo.



7.8. Declaration of co-authors' contributions

7.8.1. Article 1: An examination of the medicalization trend in female genital cutting in Egypt: how does it relate to a girl's risk of being cut?

Conceptualization of the study: Nina Van Eekert under supervision of Sarah Van de Velde

Setup of the method and conducting statistical analysis: Naomi Biegel under supervision of Sylvie Gadeyne

Writing of the manuscript as a whole: Nina Van Eekert under supervision of Sarah Van de Velde

Critical feedback on the manuscript: Naomi Biegel, Sylvie Gadeyne and Sarah Van de Velde

Revision for the journal Social Science & Medicine: Nina Van Eekert and Naomi Biegel under supervision of Sarah Van de Velde and Sylvie Gadeyne

Finalizing the manuscript in it's final form: Nina Van Eekert under supervision of Sarah Van de Velde

7.8.2. Article 2: The Association Between Women's Social Position and the Medicalization of Female Genital Cutting in Egypt.

Conceptualization of the study: Nina Van Eekert and Sarah Van de Velde

Setup of the method and conducting statistical analysis: Nina Van Eekert under supervision of Sarah Van de Velde

Writing of the manuscript as a whole: Nina Van Eekert under supervision of Els Leye and Sarah Van de Velde

Critical feedback on the manuscript: Els Leye and Sarah Van de Velde

Revision for the journal International Perspectives on Sexual and Reproductive Health: Nina Van Eekert under supervision of Els Leye and Sarah Van de Velde

Finalizing the manuscript in it's final form: Nina Van Eekert under supervision of Els Leye and Sarah Van de Velde

7.8.3. Article 3: The medicalization of female genital cutting: harm reduction or social norm?

Conceptualization of the study: Nina Van Eekert and Sarah Van de Velde

Setup of the method and conducting statistical analysis: Nina Van Eekert and Veerle Buffel under supervision of Sarah Van de Velde

Writing of the manuscript as a whole: Nina Van Eekert under supervision of Sarah Van de Velde

Revision for the journal *Sociology of Health and Illness*: Nina Van Eekert under supervision of Sarah Van de Velde

Additional statistical analysis through critical peer review for publication in *Sociology of Health and Illness*: Nina Van Eekert and Sarah De Bruyn under supervision of Sarah Van de Velde

Critical feedback on the manuscript: Veerle Buffel, Sara De Bruyn and Sarah Van de Velde

Finalizing the manuscript in its final form: Nina Van Eekert under supervision of Sarah Van de Velde

7.8.4. Article 4: Why do mothers opt for a medicalized cut and how does this relate to decreasing FGC prevalence?

Conceptualization of the study: Nina Van Eekert under supervision of Sarah Van de Velde and Els Leye

Setup quantitative descriptive statistics: Nina Van Eekert and Naomi Biegel

Setup of the qualitative data methodology: Nina Van Eekert under supervision of Sibyl Anthierens and Els Leye

Qualitative data collection: Nina Van Eekert in collaboration with Martha Kieiri and under supervision of Tammary Esho

Qualitative data analysis: Nina Van Eekert and controlling research triangulation in collaboration with Sibyl Anthierens, Sarah Van de Velde and Els Leye

Critical feedback on the manuscript: Sarah Van de Velde, Sibyl Anthierens, Naomi Biegel, Martha Kieiri, Tammary Esho and Els Leye

Finalizing the manuscript in its final form: Nina Van Eekert under supervision of Sarah Van de Velde and Els Leye

7.9. Curriculum Vitae Nina Van Eekert

Nina Van Eekert was born in Borgerhout, Antwerp, the 20th of July 1991. She holds a professional bachelor in social work and a master in Sociology. During her studies and the following years Nina was employed - as intern, voluntary employee and professional – as a social worker in various organization within the social sector in Belgium, e.g. as a youth councillor, within the field of social housing and as an social assistant for asylum seekers.

Nina Van Eekert started her PhD in October 2016 at both the University of Antwerp (main institution), at the Centre for Population, Family & Health (formerly named Centre for Longitudinal and Lifecourse studies) and Ghent University at the International Centre for Reproductive Health.

First author publications in international scientific peer-reviewed journals (chronological order):

- ❖ **Van Eekert Nina**, Buffel Veerle, De Bruyn Sara & Van de Velde Sarah. (2020). *The medicalization of female genital cutting: harm reduction or social norm?* Sociology of Health and Illness, Doi: 10.1111/1467-9566.13153.
- ❖ **Van Eekert Nina**, Biegel Naomi, Gadeyne Sylvie & Van de Velde Sarah. (2020). *An examination of the medicalization trend in female genital cutting in Egypt: how does it relate to a girl's risk of being cut?* Social Science & Medicine (258). Doi: 10.1016/j.socscimed.2020.113024
- ❖ **Van Eekert Nina**, Leye Els & Van de Velde Sarah. (2018). *The Association Between Women's Social Position and the Medicalization of Female Genital Cutting in Egypt*. International Perspectives on Sexual and Reproductive Health, 44(3). Doi: 10.1363/44e6618

Co-authorships in international scientific peer-reviewed journals (chronological order):

- ❖ De Schrijver Lotte, Van Baelen Luk, **Van Eekert Nina** & Leye Els. (2020). *Towards a better estimation of prevalence of female genital mutilation in the European Union: a situation analysis*. Reproductive Health, 17 (105). Doi: 10.1186/s12978-020-00947-2
- ❖ Van de Velde Sarah, **Van Eekert Nina**, Van Assche Kristof, Sommerland Nina & Wouters Edwin. Huisarts Nu. (2020). *Abortus na de wettelijke limiet: analyse van 28 741 aanmeldingen voor abortuszorg in Vlaanderen 2013-2016*, 49, 77-80.
- ❖ Leye Els, **Van Eekert Nina**, Shamu Simukai., Esho Tammamy & Barret Hazel. (2019). *Debating medicalization of Female Genital Mutilation/Cutting (FGM/C): learning from (policy)*

experiences across countries. Reproductive Health, 16(158). Doi: 10.1186/s12978-019-0817-3.

- ❖ Van de Velde Sarah & **Van Eekert Nina**. (2019). *Seeking a Deeper Understanding of the Underlying Causes of Sexual Pain in Women Who Have Undergone Female Genital Cutting*. Archives of Sexual Behavior. Doi: 10.1007/s10508-019-01555-3.
- ❖ Van de Velde Sarah, **Van Eekert Nina**, Van Assche Kristof, Sommerland Nina & Wouters Edwin. (2019). *Characteristics of Women Who Present for Abortion Beyond the Legal Limit in Flanders, Belgium*. Perspectives on Sexual and Reproductive Health, 51(3). Doi: 10.1363/psrh.12116

Papers submitted to international scientific peer-reviewed journals:

- ❖ **Van Eekert Nina**, Van de Velde Sarah, Anthierens Sibyl, Biegel Naomi, Kieiri Martha, Esho Tammary & Leye Els. Exploring medicalization of female genital cutting among the Kisii population in Kenya. Why do mothers opt for a medicalized cut and how does this relate to decreasing FGC prevalence? Submitted to Journal of Health and Social Behavior
- ❖ Van de Velde Sarah, Delareuille Katrijn, **Van Eekert Nina** & Bracke Piet. *Perceived Gender Discrimination and the Gender Gap in Depression in Europe*. [accepted at Scandinavian Journal of Public Health]

Presentations at international conferences:

- ❖ Oral presentation: 'Does medicalization counteracts abandonment of FGC? The association between medicalization and prevalence trends of FGC in Egypt?' 3th International Expert Meeting on Female Genital Mutilation/Cutting: Sharing data and experiences, improving collaboration (Brussels) (20-21/05/2019)
- ❖ Oral presentation: 'does medicalization counteracts abandonment of FGC?' Demography Day (Brussels) (26/03/2018)
- ❖ Oral presentation: 'The medicalization of female genital cutting: harm-reduction or social norm?' 2nd International Expert Meeting on Female Genital Mutilation/Cutting: Sharing data and experiences, improving collaboration (Montréal) (27-28/05/2018)
- ❖ Oral presentation: 'The medicalization of female genital cutting: harm-reduction or social norm?' European Society for Health and Medical Sociology (Lisbon) (05/06/2018)

- ❖ Oral presentation: 'Gender norms and female genital cutting'. How are social (gender) norms linked to (sexual) health of adolescents? (Ghent) (30/03/2016)
- ❖ Oral presentation: 'The association between women's status, attitude, social norm and medicalization of female genital cutting in Egypt'. International Population Conference (Cape town) (23/10-03/11/2017)
- ❖ Oral presentation: "The association between women's status and the medicalization of female genital cutting in Egypt". End FGM Conference (Brussels) (8-9/06/2017)
- ❖ Poster presentation: 'The association between women's status and the medicalization of female genital cutting in Egypt'. ANSER conference in (Ghent) (2/12/2016)

Extra (academic) achievements:

- ❖ Development of online hot topic lecture about the medicalization of female genital cutting for Academic Network for Sexual and Reproductive Health and Rights (ANSER). <https://www.youtube.com/watch?v=D0gVMsHe10c>
- ❖ Article published at website 'End FGM'-network. Komba Eva, Esho Tammary & **Van Eekert Nina**. (2020). The More Things Change, The More They Remain the Same: FGM Emerging Trends among the Kisii. <https://www.endfgm.eu/news-en-events/news/research-paper-on-fgm-emerging-trends-among-the-kisii-kenya/>

Grants received:

- ❖ Incentive grant from the University of Antwerp to realize qualitative research project in Egypt (LEGAAT Mathieu et. al.).
- ❖ Global minds (vlir-uos) funding for qualitative research project on understanding mother's decision-making on the medicalization of their daughters' cut in Kenya.

Academic membership

- ❖ Member of the Academic Network for Sexual and Reproductive Health and Rights (ANSER), a Ghent University led initiative.
- ❖ Member of the A* Antwerp Gender & Sexuality Studies Network, a University of Antwerp led initiative)

7.10. About the illustrations

As a researcher, social worker and sociologist, I strongly value the connection between research and the broader society: research should be valuable for the broader community and it should have a social impact. I believe it is important to have a connection with the topic you research, so that you are intrinsically motivated to gain knowledge and understanding. While you need to be neutral in your research, it's equally important to develop a strong understanding of the purpose and impact of the work you're doing.

When I returned from Kenya after conducting qualitative research (chapter 5.4), I felt a real eagerness to put my research into practice. Therefore, together with four friends⁷³, I started 'Collectief Positief' (<https://www.facebook.com/collectiefpositief/>). 'Collectief Positief' is a not-for-profit organization aimed at raising awareness and organizing crowdfunding activities to support sustainable good causes. Our first project was dedicated to FGC, working with the Kenyan organization Akina Ties: a rescue house for children and the basis for various community projects (www.akinaties.org). During my research stay in Kenya, I met Lilian Marwa, who is the founder of 'Akina Ties' and an inspiring woman and local changemaker. One of the key projects of 'Akina Ties' is to organize so-called 'girlie-camps' to educate teenage girls on sexual and reproductive health and rights, the illegality of FGC and to hand them the tools for self-confidence and empowerment. The focus of this organization aligns with my research results which show that women's emancipation and education is key in combating FGC.

As women emancipation is key to FGC abandonment, we wanted to put this idea into images and sell the prints to financially support Akina Ties and their girlie camps. With this in mind, we asked various artists to work around the themes of FGC, vaginas, clitorises, and women's emancipation – and we simply love the results. The prints are being sold by Collectief Positief with all profits going towards sending girls to an emancipating 'girlie camp', organized by Akina Ties.

The inaugural event took place in February 2020 at the University of Antwerp, an interesting evening which started with a documentary about FGC, followed by a panel discussion. The panel consisted of Paulien Beckaert, former nurse at Fedasil counselling survivors of FGC and now working for GAMS (Group for the Abolition of Female Genital Mutilation),

⁷³ Louise Vrints, Jolien Lauwers, Margo Lauwers & Eli Driessens

Fatimetou Sow Deyna, a journalist and FGC survivor who migrated from Mauritania to Belgium to rescue her daughter from FGC and myself, Nina Van Eekert, as a social scientist researching FGC. At the end of the evening there was an exhibition of the prints, introduced by a beautiful reading of the poem, 'Bilakoro Mousso,' by Anke Verschueren and Mona Thys. Later in March 2020 we opened an exhibition of the prints in the University of Antwerp building "De Meerminne".

In the current Ph.D. dissertation, I wanted to create an extra opportunity to expose the prints as we are proud of them and want to make them visible and available for as many people as possible. Moreover, I want to thank and acknowledge the artists for their devotion and great work.

To the artists:

I truly believe in the importance of (your) art and I want to thank you from the bottom of my heart to work with us and sending girls to girly camp.

Overview of the artists whose work was included in the current PhD dissertation.

Book Cover - print by **Marian** (Van de Weerd)

A Warm Thank You - print by **Loesdier** (Loes Deckers)

Introduction - print by **Vrints-Kolsteren**

Article 1 - print by **Sassafras** (Sassafras De Bruyn)

Article 2 - print by **Hanne Holvoet**

Article 3 - print by **Tatjana Biegel**

Article 4 - print by **Simo** (Simon Mannaerts)

Conclusion - print by **Marian** (Van de Weerd)

Appendixes - print by **Victor Vrints**

7.11. Nederlandse samenvatting

Vrouwelijke genitale verminking (VGV) behelst alle ingrepen die leiden tot een gedeeltelijke of volledige verwijdering van de externe geslachtsdelen van de vrouw en/of andere verwondingen van de vrouwelijke geslachtsdelen die niet het gevolg zijn van therapeutische ingrepen (WGO⁷⁴). Een opvallendste recente veranderingen binnen deze praktijk is de medicalisering van VGV.

Medicalisering verwijst naar elke situatie waarin VGV wordt uitgevoerd door een professionele gezondheidswerker, in een openbaar of privé hospitaal, thuis of elders (WGO⁷⁵). De vraag of medicalisering al dan niet een positieve evolutie is in de praktijk van VGV is een lopende discussie, die door beleidsmakers op zowel internationaal als nationaal niveau haast eenduidig is beantwoord door de implementatie van een anti-medicaliseringsdiscours en beleid. Dit anti-medicaliseringsdiscours is veelal gebaseerd op het uitgangspunt dat geen enkele vorm van VGV getolereerd kan worden, met aan de grondslag van dit argument de universele mensenrechten en de rechten van de vrouw en het kind. Bovendien wordt beargumenteerd dat medicalisering van VGV de praktijk VGV mogelijks in stand houdt. In dit doctoraatsproefschrift stellen we dat de discussie over medicalisering veelal gebaseerd is op morele en ethische argumenten, met weinig empirische onderbouwing. We argumenteren echter dat het essentieel is om de visie en beleving van de praktiserende gemeenschappen zelf op te nemen wanneer beleid gevormd wordt.

Het onderzoek dat gevoerd werd heeft de bedoeling de vraag te beantwoorden waarom moeders ervoor kiezen hun dochter al dan niet gemedicaliseerd te besnijden, en hoe deze beslissing samenhangt met haar sociale positie binnen de gemeenschap waarin ze leeft. Om deze vraag te beantwoorden deden we onderzoek in twee contexten waar een hoge prevalentie van VGV samengaat met toenemende medicalisering: Egypte en Kisii county in Kenya.

In Egypte onderzochten we het verband tussen de sociale positie van moeders, de sociale normen rond de praktijk en de waarschijnlijkheid dat moeders ervoor kiezen hun dochter (gemedicaliseerd) te besnijden. In Kisii county, Kenia, onderzochten we de motivatie van de moeders om de besnijdenis van hun dochters te medicaliseren en bespraken we de opkomst van medicalisering in relatie tot andere veranderingen in de praktijk van VGV.

⁷⁴ Definitie door Wereldgezondheidsorganisatie

⁷⁵ Definitie door Wereldgezondheidsorganisatie

Op basis van deze onderzoeken, gevoerd binnen het kader van deze thesis, kwamen we tot de volgende besluiten: beide trends, toenemende medicalisering en afnemende prevalentie van VGV, kunnen tezamen plaatsvinden en toenemende medicalisering, in de context waarin moeder en dochter wonen, leidt niet noodzakelijk tot een hoger risico op VGV bij de dochters. Wat betreft de motivatie van moeders om de besnijdenis van hun dochters te medicaliseren leerden we dat de meest voorkomende drijfveer is om de gezondheidsrisico's die gepaard gaan met de besnijdenis te verminderen. Moeders lijken in gemedicaliseerde VGV een minder schadelijk voor de gezondheid, maar toch cultureel aanvaardbaar alternatief te vinden. Bovendien zagen we dat de medicalisering van VGV sociaal gestratificeerd is. Vrouwen met een hogere sociale positie kiezen meer voor gemedicaliseerde VGV, waar vrouwen met een lagere sociale positie zich nog vaker tot een traditionele besnijdstster wenden. Tot slot bleek medicalisering van VGV an sich als een sociale norm te fungeren. De sociale norm lijkt niet langer enkel dat meisjes besneden moeten worden, maar ook dat besnijdenis door een professionele gezondheidswerker dient uitgevoerd te worden.

Concluderend stellen we dat het debat over medicalisering genuanceerder moet worden gevoerd. Het algemene discours over medicalisering moet kritisch worden bekeken en empirisch onderbouwd. Voordat we in staat zijn om de vraag "te medicaliseren of niet te medicaliseren" te beantwoorden; dienen zich nog vele andere vragen aan.

8. Bibliography

1. *Eliminating Female genital mutilation. An interagency statement.* 2008, Geneva: WHO.
2. Shell-Duncan, B., R. Nail, and C. Feldman-Jacobs, *A state-of-the-art synthesis on female genital mutilation/cutting. What do we know now?* 2016, Population Council: New York. p. 36.
3. WHO, *Global strategy to stop health-care providers from performing female genital mutilation*, WHO, Editor. 2010, UNAIDS, UNDP, UNFPA, UNHCR, UNICEF, UNIFEM, WHO, FIGO, ICN, IOM, MWIA, WCPT, WMA.
4. Shell-Duncan, B., C. Njue, and Z. Moore, *The Medicalization of Female Genital Mutilation/Cutting: What do the Data Reveal?*, in *Evidence to End FGM/C: Research to Help Women Thrive.* 2017, Population Council: New York.
5. Toubia, N. and S. Izett, *Female Genital Mutilation: An Overview.* 1998, Geneva: World Health Organisation.
6. Shell-Duncan, B., *The medicalization of female "circumcision": harm reduction or promotion of a dangerous practice?* *Social Science & Medicine*, 2001. 52(7): p. 1013-28.
7. Serour, G.I., *Medicalization of female genital mutilation/cutting.* *African Journal of Urology*, 2013. 19(3): p. 145-149.
8. Organization, W.H., *Care of women and girls living with female genital mutilation: a clinical handbook.* 2018, Geneva.
9. Lurie, J., et al., *Painful gynecologic and obstetric complications of female genital mutilation/cutting: A systematic review and meta-analysis.* *PLoS Med*, 2020. 17(3).
10. Andro, A., et al., *Female genital mutilation. Overview and current knowledge.* *Population*, 2016. 71(2): p. 217-296.
11. UNICEF, *Female Genital Mutilation/Cutting: A statistical overview and exploration of the dynamics of change.* 2013.
12. Yoder, P., N. Abderrahim, and A. Zhuzhuni, *Female Genital Cutting in the Demographic and Health Surveys: A Critical and Comparative Analysis.* *DHS Comparative Reports No 7.* 2004, ORC Macro: Calverton, Maryland.
13. Earp, B. and S. Johnsdotter, *Current critiques on the WHO policy on female genital mutilation.* *International journal of impotence research*, 2020.
14. WHO, *WHO guidelines on the management of health complications from female genital mutilation.* 2016.
15. Kimani, S., J. Muteshi, and C. Njue, *Health impacts of female genital mutilation/cutting: a synthesis of the evidence*, in *Evidence to end FGM/C programma: research to help girls and women thrive.* 2016, Population Council: New York.
16. World Health Organisation. *Female genital mutilation.* 2020; Available from: <https://www.who.int/news-room/fact-sheets/detail/female-genital-mutilation>.
17. Van de Velde, S. and N. Van Eekert, *Seeking a deeper understanding of the underlying causes of sexual pain in women who have undergone female genital cutting.* *Archives of Sexual Behavior*, 2019.
18. Abdulcadir, J., M. Boulvain, and P. Petignat, *Reconstructive surgery for female genital mutilation.* *Lancet*, 2012. 380(9837): p. 90-92.
19. UNICEF, *Female genital mutilation (FGM).* 2020.
20. Cappa, C., L. Van Baelen, and E. Leye, *The practice of female genital mutilation across the world: Data availability and approaches to measurement.* *Global Public Health*, 2019. 14(8): p. 1139-1152.

21. UNICEF, *Female genital mutilation/cutting: A global concern*. 2016.
22. 28 Too Many, *Kenya: Country Profile Update*. 2016.
23. 28 Too Many, *Country Profile: FGM in Egypt*. 2017.
24. *Panel Survey of Young People in Egypte (SYPE) 2014: Generating Evidence for Policy, Programs, and Research*, R. Rania Roushdy and M. Sieverding, Editors. 2015, Population Council: Cairo.
25. Van Rossem, R., D. Meekers, and A.J. Gage, *Women's position and attitudes towards female genital mutilation in Egypt: A secondary analysis of the Egypt demographic and health surveys, 1995-2014*. BMC Public Health, 2015. 15(1): p. 874.
26. Gruenbaum, E., *The female circumcision controversy. An anthropological perspective*. . 2001, Philadelphia: University of Pennsylvania Press.
27. Abdelshahid, A. and C. Campbell, *Should I circumcise my daughter? Exploring diversity and ambivalence in Egyptian parents' social representations of female circumcision*. J Community Appl Soc Psychol, 2015. 25.
28. Assaad, M.B., *Female Circumcision in Egypt: Social Implications, Current Research and Prospects for Change*. Stud Family Plann, 1980. 11.
29. Yount, K.M., *Like mother, like daughter? Female genital cutting in Minia, Egypt*. Journal of Health and Social Behavior, 2002. 43(3): p. 336-58.
30. Yount, K.M., *Symbolic gender politics, religious group identity, and the decline in female genital cutting in Minya, Egypt*. Social Forces, 2004. 82(3): p. 1063-1090.
31. Zimmerman, D.H. and C. West, *Doing gender*. Gender and Society, 1987. 1(2): p. 13-37.
32. Collins, R., et al., *Toward an integrated theory of gender stratification*. Sociological Perspectives, 1993. 36(3): p. 185-216.
33. Jagger, G., *Judith Butler: Sexual Politics, Social Change and the Power of the Performative*. 2008, London & New York: Routledge Taylor & Francis group.
34. Yount, K., et al., *Community gender systems and a daughter's risk of female genital mutilation/cutting: Multilevel findings from Egypt*. PloS one, 2020. 15(3).
35. Yount, K., et al., *Community gender systems and daughter's risk of female genital mutilation/cutting: New theory and application to Egypt*, in Medrxiv. 2019.
36. Bradley, K. and D. Khor, *Toward an integration of theory and research on the status of women*. Gender Sociology, 1993. 7: p. 347-378.
37. Yodanis, C., *Gender inequality, violence against women, and fear: A cross-national test of the feminist theory of violence against women* Journal of Interpersonal Violence, 2004. 19: p. 655-675.
38. Chafetz, J., *Sex and advantage: A comparative, macro-structural theory of sex stratification*. 1984, Totowa, New Jersey: Rowman and Allanheld.
39. Kabeer, N., *Resources, Agency, Achievements: Reflections on the Measurement of Women's Empowerment*. Development and Change, 1999. 30(3): p. 435-464.
40. Sen, A., *Commodities and Capabilities*. 1985, Amsterdam: North-Holland.
41. Rasheed, S.M., A.H. Abd-Ellah, and F.M. Yousef, *Female genital mutilation in Upper Egypt in the new millennium*. International Journal of Gynecology & Obstetrics, 2011. 114(1): p. 47-50.
42. Van Eekert, N., E. Leye, and S. Van de Velde. *The association between women's social status and the medicalisation of female genital cutting in Egypt*. in *2nd International Academic Seminar of MAP-FGM Project*. 2017. Brussels: VUBPress.
43. Boyle, E.H., *Female genital cutting: Cultural conflict in the global community*. 2005: John Hopkins University Press.

44. El-Gibaly, O., et al., *The decline of female circumcision in Egypt: evidence and interpretation*. Social Science & Medicine, 2002. 54(2): p. 205-20.
45. Hayford, S.R., *Conformity and change: community effects on female genital cutting in Kenya*. Journal of Health and Social Behavior, 2005. 46(2): p. 121-40.
46. Afifi, M., *Women's empowerment and the intention to continue the practice of female genital cutting in Egypt*. Archives of Iranian Medicine, 2009. 12(2): p. 154-60.
47. Dalal, K., S. Lawoko, and B. Jansson, *Women's attitudes towards discontinuation of female genital mutilation in Egypt*. J Inj Violence Res, 2010. 2.
48. Masho, S.W. and L. Matthews, *Factors determining whether Ethiopian women support continuation of female genital mutilation*. International Journal of Gynecology & Obstetrics, 2009. 107(3): p. 232-5.
49. Chikhungu, L.C. and N.J. Madise, *Trends and protective factors of female genital mutilation in Burkina Faso: 1999 to 2010*. International Journal for Equity in Health, 2015. 14(1): p. 42.
50. Modrek, S. and X.S. Liu, *Exploration of pathways related to the decline in female circumcision in Egypt*. BMC Public Health, 2013. 3.
51. Achia, T.N., *Spatial modelling and mapping of female genital mutilation in Kenya*. BMC public health, 2014. 14(1): p. 1.
52. Besera, G. and A. Roess, *The relationship between female genital cutting and women's autonomy in Eritrea*. International Journal of Gynecology & Obstetrics, 2014. 126(3): p. 235-239.
53. Bicchieri, C., *Norms in the wild: How to diagnose, measure and change social norms*. 2017, New York: Oxford University Press.
54. Mackie, G., *Female genital cutting: the beginning of the end*. Female" circumcision" in Africa: culture, controversy, and change. Boulder, Colorado, Lynne Rienner, 2000: p. 253-282.
55. Modrek, S. and M. Sieverding, *Mother, Daughter, Doctor: Medical Professionals and Mothers' Decision Making About Female Genital Cutting in Egypt*. International Perspectives on Sexual and Reproductive Health, 2016. 42(2): p. 81-92.
56. Mackie, G., *Ending footbinding and infibulation: A convention account*. American Sociological Review, 1996. 61(6): p. 999-1017.
57. Gruenbaum, E., *Socio-cultural dynamics of female genital cutting: Research findings, gaps, and directions*. Cult Health Sex, 2005. 7.
58. Hicks, E., *Infibulation: female mutilation in islamic Northeastern Africa*. 1993, New Brunswick, NJ: Transaction Publishers.
59. Gordon, D., *Female circumcision and genital operations in Egypt and the Sudan: A dilemma for medical anthropology*. Medical Anthropology Quarterly, 1991. 5(1): p. 3-14.
60. Leonard, L., *Interpreting Female Genital Cutting: Moving beyond the impasse*. Annual Review of Sex Research, 2000. 11: p. 159-191.
61. Kennedy, J., *Circumcision and excision in Egyptian Nubia*. Journal of the Royal Anthropological Institute, 1970. 5: p. 175-191.
62. Ericksen, K., *Female circumcision among Egyptian women*. Women's health: Research on gender, 1995. 1: p. 309-328.
63. Gruenbaum, E., *Reproductive ritual and social reproduction: female circumcision and the subordination of women in Sudan*, in *Economy and class in Sudan*, N. O'Neill and J. O'Brien, Editors. 1988, Avebury: Aldershot, England. p. 308-325.

64. McAdam, D., *Gender and the activist experience*. American journal of sociology, 1992. 97(5): p. 1211-1240.
65. Chafetz, J., *Gender Equity. An Integrated Theory of Stability and Change*. 1990, Newbury Park: Sage.
66. Van Rossem, R., *Vrouwelijke autonomie en vrouwenbesnijdenis in Egypte, 2005*. Het sociaal-demografisch perspectief : Liber Amicorum ter ere van het emeritaat van Prof. Dr. Hilary Page, 2010: p. 265-312.
67. Mohammed, E., A. Seehom, and M. Mahfouz, *Female genital mutilation: current awareness, beliefs and future intention in rural Egypt*. Reproductive Health, 2018. 15(175).
68. Tummolini, L., *Social conventions*, in *Encyclopedia of Philosophy and the Social Sciences* Publisher: Sage Publications Inc. Editors: , B. Kaldis, Editor. 2013, SAGE Publications.
69. Boyle, E., B. McMorris, and M. Gómez, *Local conformity to international norms*. International Sociology, 2002. 17(1): p. 5-33.
70. El Dawla, A.S., *The political and legal struggle over female genital mutilation in Egypt: five years since the ICPD*. Reproductive Health Matters, 1999. 7(13): p. 128-136.
71. Shell-Duncan, B., *From health to human rights: Female genital cutting and the politics of intervention*. American anthropologist, 2008. 110(2): p. 225-236.
72. United Nations General Assembly, *Intensifying global efforts for the elimination of female genital mutilation*. 2017.
73. States Members of the United Nations and States members of specialized agencies, *Transforming our world: the 2030 Agenda for Sustainable Development*. 2015.
74. Boyle, E.H. and S.E. Preves, *National Politics as International Process: the Case of Anti-Female-Genital-Cutting Laws*. Law Soc Rev, 2000. 34.
75. End FGM European network, End FGM/C U.S. network, and Equality Now, *Female genital mutilation/cutting: a call for a global response*. 2020.
76. European Institute for Gender Equality, *Female genital mutilation in the European Union and Croatia*. 2013.
77. Walsh, D. *In a Victory for Women in Sudan, Female Genital Mutilation Is Outlawed*. 2020.
78. *General Penal Code, Nr. 19/1940*, G.o. Iceland, Editor. 2018.
79. EIGE, *Estimation of girls at risk of female genital mutilation in the European Union: Belgium, Greece, France, Italy, Cyprus and Malta*. 2018, EIGE: Vilnius, Lithuania.
80. 28 Too Many, *The Law and FGM: An Overview of 28 African Countries*. 2018.
81. UNICEF, *Changing a harmful social convention: Female Genital Mutilation/Cutting*. 2005.
82. Johansen, E., et al., *What Works and What Does Not: A Discussion of Popular Approaches for the Abandonment of Female Genital Mutilation*. Obstetrics and Gynecology International, 2013. 2013.
83. Shell-Duncan, B., et al., *Contingency and Change in the Practice of Female Genital Cutting: Dynamics of Decision Making in Senegambia*. 2010.
84. Muteshi, J. and J. Sass, *Female genital mutilation in Africa: an analysis of current abandonment approaches*. 2005, PATH: Nairobi, Kenya.
85. World Health Organisation, *Female Genital Mutilation. Programmes to Date: What Works and What Doesn't?* 1999, World Health Organisation: Geneva, Switzerland.
86. Toubia, N., *Female Genital Mutilation: A Call for Global Action*. 1995, New York: RAINBO.

87. WHO, *Eliminating female genital mutilation: an interagency statement-OHCHR, UNAIDS, UNDP, UNECA, UNESCO, UNFPA, UNHCR, UNICEF, UNIFEM, WHO*. 2008.
88. WHO, *Female genital mutilation. A joint HWO/UNICEF/UNFPA statement*. 1997.
89. Kimani, S. and B. Shell-Duncan, *Medicalized Female Genital Mutilation/Cutting: Contentious Practices and Persistent Debates*. Current Sexual Health Reports, 2018. 10: p. 25-34.
90. Leye, E., et al., *Debating medicalization of Female Genital Mutilation/Cutting (FGM/C): learning from (policy) experiences across countries*. Reproductive Health, 2019. 16(158).
91. UNFPA, *Brief on the medicalization of female genital mutilation*. 2018.
92. Cockerham, W., *Medical Sociology*, in *The Blackwell Encyclopedia of Sociology*, G. Ritzer, Editor. 2007.
93. Conrad, P., *The shifting engines of medicalization*. Journal of health and social behavior, 2005. 46(1): p. 3-14.
94. Foucault, M., *Madness and civilization: A history of insanity in the age of reason*. 1988: Vintage books.
95. Szasz, T., *The Manufacture of Madness*, Syracuse. 1970: University Press.
96. Clarke, A., et al., *Biomedicalization: Technoscientific transformations of health, illness, and US biomedicine*. American Sociological Review, 2003. 68(2): p. 161-194.
97. Christiaens, W. and E. van Teijlingen, *Four meanings of medicalization: childbirth as a case study*. Salute e società, 2009.
98. Conrad, P., *Medicalization and social control*. Annual review of Sociology, 1992. 18(1): p. 209-232.
99. Parson, T., *The social system*. 1950, Glencoe, Illinois: Free Press.
100. Zola, I., *Medicine as an institution of social control*. Sociological Review, 1972. 20: p. 487-504.
101. Clarke, A. and J. Shim, *Medicalization and biomedicalization Revisited: technoscience and transformations of health, illness and biomedicine*. Salute e Società, 2009.
102. Olafsdottir, S., *Medicalizing mental health: A comparative view of the public, private, and professional construction of mental illness*. 2007: ProQuest.
103. Carr, D., *Female Genital Cutting: findings from the demographic and health surveys program*. 1997, Macro International: Calverton, MD.
104. *World Health Organization (ed.): Female genital mutilation. Programmes to date: what works and what doesn't*. Geneva: WHO; 1999.
105. Kaplan Marcusán, A., et al., *Female genital mutilation/cutting: changes and trends in knowledge, attitudes, and practices among health care professionals in The Gambia*. International journal of women's health, 2016. 8(103–117).
106. Cadwell, J., I. Orubuloye, and P. Cadwell, *Male and female circumcision in Africa: From a regional to a specific Nigerian examination*. Social science & medicine, 1997. 44: p. 1181-1139.
107. Njeru, H. and PATH, *Female circumcision in Nyeri, Embu, and Machakos Districts of Kenya: Report on key informant interviews*. . 1996: Program for Appropriate Technology in Health.
108. Marlatt, G.A., *Harm reduction around the world*. 1998, Harm reduction: Pragmatic strategy for managing high-risk behaviors. New York: The Guilford Press.
109. Obiora, L.A., *Bridges and barricades: rethinking polemics and intransigence in the campaign against female circumcision*. Case W. Res. L. Rev., 1996. 47: p. 275.

110. Valderrama, J., *Female genital mutilation: why are we so radical?* The Lancet, 2002: p. 359.
111. Gele, A.A., P.B. Bente, and J. Sundby, *Attitudes toward female circumcision among men and women in two districts in Somalia: is it time to rethink our eradication strategy in Somalia?* Obstet Gynecol Int, 2013. 2013.
112. *FGM/C regulations mistaken as endorsement, experts fear*, in IRIN News. 2011.
113. Refaat, A., *Medicalization of female genital cutting in Egypt*. Eastern Mediterranean Health Journal, 2009. 15(6).
114. Shell-Duncan, B., et al., *Legislating Change? Responses to Criminalizing Female Genital Cutting in Senegal*. Law and Society Review, 2013. 47(4): p. 803-835.
115. Doucet, M.-H., C. Pallitto, and D. Groleau, *Understanding the motivations of health-care providers in performing female genital mutilation: an integrative review of the literature*. Reproductive Health, 2017. 14(1): p. 46.
116. El-Gibaly, O., M. Aziz, and S. Hussein, *Health care providers' and mothers' perceptions about the medicalization of female genital mutilation or cutting in Egypt: a cross-sectional qualitative study*. BMC International Health and Human Rights, 2019. 19(26).
117. Christoffersen-Deb, A., *"Taming Tradition": Medicalized Female Genital Practices in Western Kenya*. Medical anthropology quarterly, 2005. 19(4): p. 402-418.
118. Dawson, A., et al., *A systematic review of doctor's experiences and needs to support the care of women with female genital mutilation*. International Journal of Gynecology and Obstetrics, 2015: p. 35-40.
119. Obianwu, O., A. Adetunji, and O. Dirisu, *Understanding medicalization of FGM/C: a qualitative study of parents and health workers in Nigeria*, in *Evidence to End FGM/C: Research to Help Women Thrive*. 2018, Population Council: New York.
120. Mostafa, S.R.A., et al., *What do medical students in Alexandria know about female genital mutilation?* East Mediterranean Health Journal, 2006. 12(2): p. 78-92.
121. Njue, C. and I. Askew, *Medicalisation of female genital cutting among the Abagusii in Nyanza Province, Kenya*. 2004: Frontiers in Reproductive Health, Population Council.
122. Yount, K. and J. Carrera, *Female Genital Cutting and Reproductive Experience in Minya, Egypt*. Medical Anthropology Quarterly, 2006. 20(2): p. 182-211.
123. Budiharsana, M., et al., *Female circumcision in Indonesia: extent, implications and possible interventions to uphold women's health rights*. 2003, Population Council: Jakarta.
124. Kimani, S. and C. Kabiru, *Shifts in female genital mutilation/cutting in Kenya: Perspectives of families and health care providers*, in *Evidence to end FGM/C: Research to help girls and women thrive*. 2018, Population Council: New York.
125. Marlatt, G.A., *Harm reduction: Come as you are*. Addictive behaviors, 1996. 21(6): p. 779-788.
126. Ensor, T. and S. Cooper, *Overcoming barriers to health service access: influencing the demand side*. Health Policy and Planning, 2004. 19(2): p. 69-79.
127. Van Eekert, N., E. Leye, and S. Van de Velde, *The Association Between Women's Social Position and the Medicalization of Female Genital Cutting in Egypt*. International Perspectives on Sexual and Reproductive Health, 2018.
128. Souza, C., *C-sections as Ideal Births: The Cultural Constructions of Beneficence and Patients' Rights in Brazil*. Cambridge Quarterly of Healthcare Ethics, 1994. 3(3): p. 358-366.

129. Riessman, C., *Women and medicalization - a new perspective*. Sociola policy, 1983. 14(1): p. 3-18.
130. Ghattass, S., N. Abdel-Tawab, and S. Abou Hussein, *Ending The Medicalization Of Female Genital Mutilation/Cutting in Egypt*. 2016, Population Council: Caïro.
131. Yount, K.M., et al., *Measurement of Women's Agency in Egypt: A national Validation Study*. Social Indicators Research, 2015.
132. Desai, S. and K. Johnson, *Women's decisionmaking and child health: familial and social hierarchies*, in *A Focus on Gender: Collected Papers on Gender Using DHS Data*, Kishor and Sunita, Editors. 2005, ORC Macro: Calverton, Maryland, USA. p. 435-464.
133. Kishor, S., *Empowerment of women in Egypt and links to the survival and health of their infants*. 2000.
134. *The importance of women's status for child nutrition in developing countries*, L.C. Smith, et al., Editors. 2003, International food policy research institute.
135. Sing, K. and S. Bloom, *Gender Equality as a Means to Improve Maternal and Child Health in Africa*. Health Care for Women International, 2015. 36: p. 57-69.
136. Rayner, J., P. Pyett, and J. Astbury, *The medicalisation of 'tall'girls: A discourse analysis of medical literature on the use of synthetic oestrogen to reduce female height*. Social science & medicine, 2010. 71(6): p. 1076-1083.
137. Bruinsma, F., et al., *Concern about tall stature during adolescence and depression in later life*. Journal of affective disorders, 2006. 91(2-3): p. 145-152.
138. Pyett, P., et al., *Using hormone treatment to reduce the adult height of tall girls: are women satisfied with the decision in later years?* Social science & medicine, 2005. 61(8): p. 1629-1639.
139. Singh, I., *Doing their jobs: mothering with Ritalin in a culture of mother-blame*. Social Science & Medicine, 2004. 59(6): p. 1193-1205.
140. Brubaker, S.J. and H.E. Dillaway, *Medicalization, Natural Childbirth and Birthing Experiences*. Sociology Compass, 2009. 3(1): p. 31-48.
141. Bell, A., *The margins of medicalization: Diversity and context through the case of infertility*. Social Science & Medicine, 2016(156): p. 39-46.
142. Muteshi, J., S. Miller, and Z. Belizan, *The ongoing violence against women: female genital mutilation/cutting*. Reproductive Health, 2016. 13(1): p. 44-47.
143. Walhberg, A., et al., *Factors associated with support of pricking (female genital cutting type IV) among Somali immigrants - a cross-sectional study in Sweden*. Reproductive Health, 2017. 14(9).
144. Sleck, A., *Female circumcision: A critical appraisal*. Human Rights Quarterly, 1988. 437: p. 440-442.
145. Sheldon, S. and S. Wilkinson, *Female genital mutilation and cosmetic surgery: Regulating non-therapeutic body modification*. 12, 1998(4): p. 263-285.
146. Mutua, M., *Human right: A political and cultural critique*. 2002, Philadelphia: University of Pennsylvania Press.
147. Kapur, R., *The tragedy of victimizing rhetoric: Resurrecting the "native" subject in international/pst-colonial feminist legal politics*. Harvard Human Rights Journal, 2002. 15: p. 1-37.
148. Johnsdotter, S., *Somali women in western exile: reassessing female circumcision in light of Islamic teaching*. Journal of Muslim Minority Affairs, 2010. 23(2): p. 361-373.
149. Boddy, J., *The normal and the aberrant in female genital cutting: shifting paradigms*. Journal of Ethnographic Theory, 2016. 6(2): p. 41-69.

150. Muthini, S., *Legalise Female Genital Mutilation, says doctor in court*, in *Daily Nation*. 2018: Nairobi, Kenya.
151. Kimani, S., et al., *Female genital mutilation/cutting: Emerging factors sustaining medicalization related changes in selected Kenyan communities*. *Plos One*, 2020. 15(3).
152. Bedri, N., et al., *Medicalisation of Female Genital Mutilation/Cutting in Sudan: Shift in Types and Providers*, in *Evidence to End FGM/C: Research to Help Girls and Women Thrive*. 2018, NEw York: Population Council.
153. *The World Factbook: Egypt*. 2019, Central Intelligence Agency,: Washington, DC.
154. Tag-Eldin, M.A., et al., *Prevalence of female genital cutting among Egyptian girls*. *Bulletin of the World Health Organization*, 2008. 86(4).
155. Shell-Duncan, B., D. Gathara, and Z. Moore, *Female genital mutilation/cutting in Kenya: is change taking place?*, in *Evidence to end FGM/C: Research to help women thrive*. 2017, Population Council: New York.
156. *Egypt Demographic and Health Survey 2014*. 2015, Cairo, Egypt and Rockville, Maryland, USA: Ministry of Health and Population and ICF International.
157. Gage, A.J. and R. Van Rossem, *Attitudes toward the discontinuation of female genital cutting among men and women in Guinea*. *International Journal of Gynecology & Obstetrics*, 2006. 92(1): p. 92-96.
158. Van Raemdonck, A., *Egyptian Activism against Female Genital Cutting as Catachrestic Claiming*. *Religion & Gender*, 2013. 3(2): p. 222-239.
159. Muslimahs for circumcision, *Islamic female circumcision: the untold truth*. 2019.
160. Nigeen, D., *Islam and female genital mutilation (FGM)*. 2015, 28 too Many.
161. El Dareer, A., *Woman, why do you weep? Circumcision and it's consequences*. 1982, Zed Press.
162. Serour, G. and A. Rag'a Abd El-Hameed Ragab, *Female circumcision: Between the incorrect use of science and the misunderstood doctrine*. 2013: IICPSR, UNICEF.
163. *The constitution of the Arab Republic of Egypt*. 2014.
164. United Nations Development Programme. *Gender Inequality Index (GII)*. *Human Development Reports 2019*.
165. Programma, U.N.D., *United Nations Development Programma 2015*. 2015, United Nations Development Programma: New York. p. 243.
166. *Sustainable Development Strategy: Egypt's Vision 2030*, M.a.A.R. Ministry of Planning, Editor. 2016: Egypt: Cairo. p. 147.
167. Women, U., *Sustainable development goals. Gender SDG Snapshot - Egypt*. 2019, UN Women: New York,.
168. United Nations Entity for Gender Equality and the Empowerment of Women, *Study on ways and methods to eliminate sexual harassment in Egypt: results/outcomes and recommendation summary*. 2013. p. 6, 8 and 9.
169. Singerman, D., *Marriage and Divorce in Egypt: Financial Costs and Political Struggles*, B. Drieskens, Editor. 2008, Institut Francais du Proche-Orient.
170. Jyrkiäinen, S. and V. Bisset, *Great expectations, uncertain futures. Urban and online encounters with youth, love and marriage in Egypt*. *AnthropoChildren*, 2016(Special issue 6: Images, Imagination, and the Making of Future: Children, Youth and the Role of Education).
171. Rashad, H., M. Osman, and F. Farzaneh Roudi-Fahimi, *Marriage in the Arab world*. 2005, Population reference bureau Washington DC, USA.

172. Mendoza, J., M. Tolba, and Y. Saleh, *Strengthening Marriages in Egypt: Impact of Divorce on Women*. Behavioral sciences 2019. 10(1).
173. Samaha, N., *Khul' in Egypt Between Theory and Practice a Critical Analysis for Khul' Implementation*. 2016, The American University in Cairo: Cairo, Egypt.
174. *Girls not brides*, in *Country Factsheets: Egypt*. 2016.
175. Ministry of Planning Monitoring and Administrative Reform, *Sustainable Development Strategy: Egypt's Vision 2030*. 2016: Cairo, Egypt.
176. Bajec, A., *The price of poor healthcare*, in *Al-Ahram Weekly*. 2016.
177. El-Zanaty and Associates, *Egypt Demographic and Health Survey 2014*. 2014, Ministry of Health and Population Cairo, Egypt: Rockville, Maryland USA.
178. El-Zanaty and Associates, *Egypt Demographic and Health Survey 2014*. 2015, ICF International: Rockville, Maryland, USA.
179. *EDHS 2014*, USAID, Editor. 2014, ICF: Rockville, Maryland: ICF.
180. *Egyptian doctors moonlight as chefs*, in *AL Monitor*. 2017.
181. Mugambi Mwanyuma, H., *Creating safe spaces for girls in Taita Taveta County*. 2018, 28 Too Many.
182. *28 Too Many, Kenya: the law and FGM*. 2018, Thomas Reuters Foundation.
183. UNFPA-UNICEF, *2016 Annual Report of theoint Programme on Female Genital Mutilation/Cutting*, in *Joint Programme on Female Genital Mutilation/Cutting: Accelerating Change*, UNFPA-UNICEF, Editor. 2017.
184. World Economic Forum. *The global gender gap report 2011*. 2011; Available from: http://www3.weforum.org/docs.WEF_GenderGap_Reprort_2011.pdf.
185. (NCPD), N.C.o.P.a.D., *Kenya Population Situation Analysis*. 2013, National Council of Population and Development (NCPD) & United Nations Population fund (UNFPA) Kenya Country office: Nairobi, Kenya.
186. Kiplagat, S., *Discontented unions: number of dicorce cases rising steadily*, in *Daily Nation*. 2020.
187. Ministry of Devolution and Planning, *Implementation of the agenda 2030 for sustainable development in Kenya*. 2017, Ministry of Devolution and Planning: Nairobi, Kenya.
188. *The Demographic and Health Surveys Program*. [cited 2020; Available from: <https://dhsprogram.com/>].
189. El-Zanaty, F. and A. Way, *Egypt Demographic and Health Survey 2005*, a.O.M. El-Zanaty and Associates, Editor. 2006, Ministry of Health and Population, & National Population Council: Cairo, Egypt.
190. El-Zanaty, F. and A. Way, *Egypt demographic and health survey 2008*. 2009, Macro International: Cairo.
191. Statistics, K.N.B.o., et al., *Kenya Demographic and Health Survey 2014* 2015.
192. Macro, K.N.B.o.S.K.a.I., *Kenya Demographic and Health Survey 2008-09*. 2010, KNBS and ICF Macro. : Calverton, Maryland.
193. Kishor, S. and L. Subaiya, *Understanding women's empowerment: a comparative analysis of Demographic and Health Surveys (DHS) data*. 2008.
194. Malhotra, A. and S.R. Schuler, *Women's Empowerment as a Variable in International Development in Measuring Empowerment. Cross-disciplinary perspectives.*, D. Narayan, Editor. 2005, The World Bank: Washington.
195. Mackie, G., et al., *What are social norms? How are they measured?* 2015, UNICEF & University of California, San Diego, Center on Global Justice.

196. StataCorp, *Stata Statistical Software: Release 16*. College Station. 2019: TX: StataCorp LLC.
197. Menard, S., *Applied Logistic Regression Analysis*. Quantitative Applications in the Social Sciences. Vol. 106. 2001: SAGE Publications, Inc.
198. Mortelmans, D., *Logistische regressie*. 2010, Leuven, België: ACCO.
199. Neels, K., *Multivariate Analyse*. 2017, Leuven, België: ACCO.
200. Jones, K. and S. Subramanian, *Developing multilevel models for analysing contextuality, heterogeneity and change using MLwiN 2.2*. Centre for Multilevel Modelling: University of Bristol, 2012.
201. Silverman, D., *Interpreting qualitative data*. 5 ed. 2014, London, UK: SAGE.
202. Silverman, D., *Doing qualitative research*. 5 ed. 2017, London, UK: SAGE.
203. Mortelmans, D., *Handboek kwalitatieve onderzoeksmethoden*. 2013, Leuven, België: ACCO.
204. Bryman, A., *Social research methods*. 2012, Oford, UK: Oxford Univeristy Press.
205. 28 Too Many, *Country profile: FGM in Egypt*, in *FGM.. let's end it*, T. Many, Editor. 2017.
206. Hassanin, I.M., et al., *Prevalence of female genital cutting in Upper Egypt: 6 years after enforcement of prohibition law*. *Reprod Biomed Online*, 2008. 16.
207. Litt, J., *American Medicine and Divided Motherhood: Three Case Studies from the 1930s and 1940s*. *The Sociological Quarterly*, 1997. 38(2): p. 285-302.
208. Bell, A., *The gas that fuels the engine: Individuals' motivations for medicalisation*. *Sociology of Health & Illness*, 2017. 39(8): p. 1480-1495.
209. Ahmadu, F., *Rites and wrongs: An insider/outsider reflects on power and excision*, in *Female "circumcision" in Africa: Culture, controversy, and change*. 2000. p. 283–312.
210. Cottingham, J. and E. Kismodi, *Protecting girls and women from harmful practices affecting their health: Are we making progress?* *International Journal of Gynecology & Obstetrics*, 2009. 106(2): p. 128-131.
211. Balfour, J., et al., *Interventions for healthcare providers to improve treatment and prevention of female genital mutilation: a systematic review*. *BMC Health Services Research*, 2016. 16(1): p. 409.
212. Toubia, N., *Female genital mutilation and the responsibility of reproductive health professionals*. *International Journal of Gynecology & Obstetrics*, 1994. 46(2): p. 127-135.
213. Hernlund, Y., *Cutting without ritual and ritual without cutting: female circumcision and the re-ritualization of initiation in The Gambia*, in *Female" circumcision" in Africa: culture, change and controversy*, L. Rienner, Editor. 2000, Boulder: Colorado. p. 235–252.
214. Yoder, P. and W. Shanxiao, *Female Genital Cutting: The Interpretation of Recent DHS Data*, in *DHS Comparative Reports No. 33*. 2013, ICF International: Calverton, Maryland, USA.
215. Mackie, G., et al., *What are social norms? How are they measured?* 2015, UNICEF. University of California. Center on Global justice.: San diego.
216. Berg, R.C., E. Denison, and F. A.P., *Psychological, social and sexual consequences of female genital mutilation/cutting (FGM/C): a systematic review on quantitative studies*. 2010, Nasjonalt kunnskapscenter for helsetjenesten: Oslo.
217. Sadek, G., *Egypt: Sexual Violence against Women*. The Law Library of Congress, ed. G.L.R. Centre. 2016.

218. Finke, E., *Genital mutilation as an expression of power structures: ending FGM through education, empowerment of women and removal of taboos*. African Journal of Reproductive Health, 2006. 10(2).
219. Refaat, A., et al., *Female genital mutilation and domestic violence among Egyptian women*. Journal of Sex & Marital Therapy, 2001. 27(5): p. 593-598.
220. Afifi, M. and M. Von Bothmer, *Egyptian women's attitudes and beliefs about female genital cutting and its association with childhood maltreatment*. Nursing & health sciences, 2007. 9(4): p. 270-276.
221. Suzuki, C. and D. Meekers, *Determinants of support for female genital cutting among ever-married women in Egypt*. Global Public Health, 2008. 3(4): p. 383-398.
222. Khadr, Z., *Monitoring socioeconomic inequity in maternal health indicators in Egypt: 1995-2005*. International Journal for Equity in Health, 2009. 8(1): p. 38.
223. Yount, K.M., *Women's family power and gender preference in Minya, Egypt*. Journal of Marriage and Family, 2005. 67(2): p. 410-428.
224. Woldemicael, G. and E.Y. Tenkorang, *Women's autonomy and maternal health-seeking behavior in Ethiopia*. Maternal and child health journal, 2010. 14(6): p. 988-998.
225. Kawaguchi, L., et al., *Dimensions of women's empowerment and their influence on the utilization of maternal health services in an Egyptian village: a multivariate analysis*. Nagoya journal of medical science, 2014. 76(1-2): p. 161-71.
226. Richards, E., et al., *Going beyond the surface: Gendered intra-household bargaining as a social determinant of child health and nutrition in low and middle income countries*. Social science & medicine, 2013. 95: p. 24-33.
227. Roushdy, R., *Intrahousehold Resource Allocation in Egypt: Does Women's Empowerment Lead to Greater Investments in Children?* Economic Research Forum, 2004.
228. Blumberg, R.L., *A general theory of gender stratification*. Sociological theory, 1984. 2(3): p. 23-101.
229. Shkedi-Rafid, S. and Y. Hashiloni-Dolev, *Egg freezing for age-related fertility decline: preventive medicine or a further medicalization of reproduction? Analyzing the new Israeli policy*. Fertility and Sterility, 2011. 96(2): p. 291-294.
230. Tiefer, L., *Female Genital Cosmetic Surgery: Freakish or Inevitable? Analysis from Medical Marketing, Bioethics, and Feminist Theory*. Feminism & Psychology, 2008. 18(4): p. 466-479.
231. Braun, V., *In search of (better) sexual pleasure: female genital 'cosmetic' surgery*. Sexualities, 2005. 8(4): p. 407-424.
232. Grown, C., G.R. Gupta, and R. Pande, *Taking action to improve women's health through gender equality and women's empowerment*. The Lancet, 2005. 365(9458): p. 541-543.
233. Carmichael, S., *Marriage and power: Age at first marriage and spousal age gap in lesser developed countries*. History of the Family, 2011. 16(4): p. 416-436.
234. *A home divided: Women and income in the third world*. 1988, Stanford, California: Stanford University Press.
235. Govindasamy, P. and A. Malhotra, *Women's position and family planning in Egypt*. Studies in Family Planning, 1996: p. 328-340.
236. Conrad, P. and V. Leiter, *Medicalization, Markets and Consumers*. Journal of Health and Social Behavior, 2004. 45: p. 158-176.
237. Yoder, P.S., S. Wang, and E. Johansen, *Estimates of female genital mutilation/cutting in 27 African countries and Yemen*. Studies in Family Planning, 2013. 44(2): p. 189-204.

238. Muteshi, J. and J. Sass, *Female Genital Mutilation in Africa: An Analysis of Current Abandonment Approaches*. 2005, PATH: Nairobi.
239. Clark, J., *Medicalization of global health 1: has the global health agenda become too medicalized?* *Global health action*, 2014. 7(23998).
240. Grose, R., et al., *Community Influences on Female Genital Mutilation/Cutting in Kenya: Norms, Opportunities, and Ethnic Diversity*. *Journal of health and social behavior*, 2019. 60(1): p. 84-100.
241. Oinas, E., *Medicalisation by whom? Accounts of menstruation conveyed by young women and medical experts in medical advisory columns*. *Sociology of health & illness*, 1998. 20(1): p. 52-70.
242. Griffiths, F., *Women's control and choice regarding HRT*. *Social science & medicine*, 1999. 49(4): p. 469-481.
243. Wray, S. and R. Deery, *The medicalization of body size and women's healthcare*. *Health Care for Women International* 2008. 29(3): p. 227-243.
244. Clarke, A. and J. Shim, *Medicalization and Biomedicalization Revisited: Technoscience and Transformations of Health, Illness and American Medicine*, in *Handbook of the Sociology of Health, Illness, and Healing. Handbooks of Sociology and Social Research.*, B. Pescosolido, et al., Editors. 2011, Springer: New York.
245. Conrad, P., *Up, down and sideways*. *Society*, 2006. 43(6): p. 19-20.
246. Riessman, C., *Women and Medicalization - a new perspective*. *Social Policy*, 1983. 14(1): p. 3-18.
247. Lunde, I.B. and M. Sagbakken, *Female genital cutting in Hargeisa, Somaliland: is there a move towards less severe forms?* *Reproductive health matters*, 2014. 22(43): p. 169-177.
248. Shell-Duncan, B., et al., *Dynamics of change in the practice of female genital cutting in Senegambia: Testing predictions of social convention theory*. *Soc Sci Med*, 2011. 73.
249. DosReis, S. and M. Myers, *Parental attitudes and involvement in psychopharmacological treatment for ADHD: A conceptual model*. *International Review of Psychiatry*, 2008. 20(2): p. 135-141.
250. Rooke, C., *Harm reduction and the medicalisation of tobacco use*. *Sociology of Health & Illness*, 2013. 35(3): p. 361-376.
251. Elster, J., *The Cement of Society: A study of Social Order*. 1989, Cambridge: Cambridge University Press.
252. Greil, A., K. Slauson-Blevins, and J. McQuillan, *The experience of infertility: a review of recent literature*. *Sociology of health & illness*, 2010. 32(1): p. 1-23.
253. Conrad, P., *The Medicalization of Society. On the Transformation of Human Conditions into Treatable Disorders*. 2007, Maryland: The Johns Hopkins University Press.
254. Rasbash, J., et al., *A user's guide to MLwiN*. London: Institute of Education, 2000. 286.
255. Mood, C., *Logistic Regression: Why We Cannot Do What We Think We Can Do, and What We Can Do About It*. *European Sociological Review*, 2010. 26(1): p. 67-82.
256. Morris, K., *Feature: Issues on female genital mutilation/cutting-progress and parallels*. *The Lancet*, 2006. 368: p. S64.
257. Pearce, A., *Medicalization of female genital mutilation. Harm reduction or unethical?* *Obstetrics, gynaecology and reproductive medicine*, 2013. 24(1).
258. Boerma, J.T. and E. Sommerfelt, *Demographic and Health Surveys (DHS): contributions and limitations, in World health statistics quarterly. Rapport trimestriel de statistiques sanitaires mondiales* 1993. p. 222-226.

259. Bjälkander, O., et al., *Female Genital Mutilation in Sierra Leone: who are the decision makers?* African Journal of Reproductive Health, 2012. 16(4).
260. Varol, N., et al., *The role of men in abandonment of female genital mutilation: a systematic review.* BMC Public Health, 2015. 15(1): p. 1034.
261. Berggren, V., et al., *Being victims or beneficiaries? Perspectives on female genital cutting and reinfibulation in Sudan.* Afr J Reprod Health, 2006. 10.
262. Grose, R., et al., *Community influences on female genital mutilation/cuting in Kenya: Norms, opportunities, and ethnic diversity.* Journal of health and social behavior, 2019. 60(1): p. 84-100.
263. Van Eekert, N., et al., *An examination of the medicalization trend in female genital cutting in Egypt: How does it relate to a girl's risk of being cut?* Social Science & Medicine, 2020. 285.
264. Okemwa, P., M. HMK, and D. Ayuku, *Female genital cut in relation to its value and health risks among the Kisii of Western Kenya.* Health, 2014. 6: p. 2066-2080.
265. Matanda, D., et al., *Tracing changes in female genital mutilation/cutting: Shifting norms and practices among communities i Narok and Kisii county, Kenya,* in *Evidence to end FGM/C: Research to help girls and women thrive*, P. Council, Editor. 2018: New York.
266. Humphres, E., et al., *Contributing towards efforts to abandon female genital mutilation/cutting in Kenya: A situation analysis.* 2007, Ministry of Gender, Sportsn Culture and Social Services, Republic of Kenya: Nairobi, Kenya.
267. Momanyi, D., *Female circumcision among the Abagusii people in Kenya.* 2001, Kendu Bay: African Herald Publishing House.
268. Gwako, E., *Continuity and change in the practice of clitodirectomy in Kenya: a case-study of Abagusii.* Journal of Modern African Studies, 1995. 33: p. 333-337.
269. Oloo, H., M. Wanjiru, and K. Newell-Jones, *Female genital mutilation practices in Kenya: The role of alternative rites of passage: A case study of Kisii and Kuria districts.* 2011, Feed the Minds: Lodnon.
270. Kandala, N., et al., *Modeling and mapping of girls' female genital mutilation/cutting in the context of economic, social and regional disparities: Kenya Demographic and Health Suveys 1998-2014,* in *Evidence to dnd FGM/C: Research to help women thrive.* 2017, Population Council: New York.
271. Bell, A., *The margins of medicalization: Diversity and context through the case of infertility.* Social Science & Medicine, 2016: p. 39-46.
272. Hussein, S., *Women in transition: resisting female genital cutting (FGC) in Egypt,* in *Gendered Resistance.* 2019, Arab Council for the Social Sciences.
273. Gruenbaum, E., *The Movement against Clitoridectomy and Infibulation in Sudan: Public Health Policy and the Women's Movement.* Medical Anthropology Newsletter, 1982. 13(2): p. 4-12.
274. Shell-Duncan, B., W.O. Obiero, and L.A. Muruli, *Women without choices: the debate over medicalization of female genital cutting and its impact on a northern Kenyan community.* Female" circumcision" in Africa: Culture, Controversy, and Change, 2000: p. 109-128.
275. Shell-Duncan, B. and Y. Hernlund, *Female "Circumcision" in Africa: Dimensions of the Practice and Debates.* 2000, Boulder, CO: Lynne Rienner publ.
276. Van der Kwaak, A., *Female circumcision and gender identity: A questionable alliance?* Social science & medicine, 1992. 35(6): p. 777-787.

277. U.N., *Review of further developments in Fields with which the Sub-Commission has been concerned: Study on tradition practices affecting the health of women and children*. 1991, United Nations Economic and Social Council.
278. Elmusharaf, S., N. Elhadi, and L. Almroth, *Reliability of self reported form of female genital mutilation and WHO classification: cross sectional study*. *BMJ*, 2006. 333(7559): p. 124.
279. Bjälkander, O., et al., *Female Genital Mutilation in Sierra Leone: Forms, Reliability of Reported Status, and Accuracy of Related Demographic and Health Survey Questions*. *Obstetrics and Gynecology International*, 2013. 2013: p. 680926.
280. Christiaens, W., M. Nieuwenhuijze, and R. De Vries, *Trends in the medicalisation of childbirth in Flanders and the Netherlands*. *Midwifery*, 2013. 29(1): p. e1-e8.
281. Ayuandini, S., *Finger Pricks and Blood Vials: How doctors medicalize 'cultural' solutions to demedicalize the 'broken' hymen in the Netherlands*. *Social Science & Medicine*, 2017. 177: p. 61-68.
282. Halfmann, D., *Recognizing medicalization and demedicalization: Discourses, practices, and identities*. *Health*, 2011.