Emergency contraception in post-conflict Somalia: 
Assessing awareness and perceptions of need

Thesis

Presented to the Faculty of Graduate and Postdoctoral Studies 
In partial fulfillment of the requirements of the 
Master of Science in Interdisciplinary Health Sciences

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June 2015

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Abstract
Somalia's reproductive health indices are among the worst in the world. Rates of maternal death, total fertility, and sexual and gender based violence reflect the poor reproductive health outcomes of women living in Somalia. Over two decades of civil unrest left the majority of the population without access to basic health care, particularly reproductive health services. Currently, it is estimated that about 1% of women in Somalia use a modern method of contraception, and the country has yet to register a dedicated progestin-only emergency contraceptive pill. This study seeks to explore levels of awareness and the perceived need for emergency contraception (EC), as well as stakeholders’ knowledge of and experiences with reproductive health services in Somalia. Through interviews and focus group discussions with stakeholders in Somalia, I learned that awareness about vital services like EC is low, while the need for EC and broader reproductive health services is high. Evidently, stakeholders believe awareness, availability, quality care, culture, religion and good governance are important factors for both delivering and accessing reproductive health care. These study findings will fill an important gap in the literature and support efforts to expand and improve reproductive health service delivery in the country.

Résumé
Les indicateurs de santé reproductive en Somalie se classent parmi les pires au monde. Les taux de mortalité maternelle, l’indice synthétique de fécondité et la violence sexuelle ainsi que la violence faite aux femmes montrent que la santé reproductive des femmes en Somalie est précaire. La guerre civile qui dure plus de deux décennies fait en sorte que la majorité de la population n’a pas accès aux services de soins de santé de base. L’accès aux services de santé reproductive est d’autant plus difficile en Somalie. En ce moment, on estime à seulement 1% des femmes somaliennes qui utilisent les méthodes de contraception modernes et la Somalie n’a toujours pas enregistré les pilules contraceptives d’urgence progestative. Cette étude a pour but d’explorer le niveau de sensibilisation et de perception chez les femmes à propos des méthodes contraceptives d’urgence ainsi que leurs connaissances sur ces méthodes. De plus, l’étude cherche à explorer l’expérience que les parties prenantes ont avec les services de santé reproductive en Somalie. À travers les entrevues et les groupes de discussions avec les parties prenantes en Somalie, j’ai appris qu’ils n’étaient pas au courant de l’importance d’offrir des services de santé reproductive comme les méthodes contraceptives d’urgence, alors que le besoin de cette pilule est accru dans tous les services de santé reproductive. Cependant, les parties prenantes croient que la sensibilisation, l’accessibilité, les soins de qualité, la culture, la religion et une bonne gouvernance devraient faire partie des facteurs importants qui encadre la façon dont on offre et dans la façon dont on évalue ces services de santé reproductive. Les résultats de cette étude pourront aider à combler l’écart qui existe entre la littérature et les efforts fournis pour pouvoir répandre et améliorer les services offerts dans ce pays.
Acknowledgments

I would like to thank the many people and organizations whose support and guidance made the fruition of this project possible.

First and foremost, I would like to sincerely thank my supervisor, Dr. Angel Foster, for her unwavering support throughout the entire process. Dr. Foster believed in my ability to conduct such a project upon first contact, and for that I will be forever grateful. Through her guidance, I have matured as a student, a researcher, and leader. Her supervision has been nothing short of inspirational, and has nurtured my commitment to women’s health research in the Horn of Africa.

I am truly indebted to my study facilitators, Marian Yusuf and Koshin Dahir, for their dedication to the project, expertise and consistent encouragement while based in Mogadishu. Moreover, I would like to extend my gratitude to the members of COGWO who assisted with recruitment and helped with facilitating the focus group discussions.

This project also would not have been possible without all of my study participants based in Mogadishu. I will be forever indebted to everyone who participated in my study- from the key informants, to the pharmacists, and women of Mogadishu. I am truly grateful for all of their insight.

I would also like to thank my thesis advisory committee members, Dr. Sanni Yaya and Dr. Shoshana Magnet, for their guidance from the earliest stages of this project through to its completion.

Moreover, I am thankful to the Society of Family Planning and the University of Ottawa for providing the funding necessary to conduct my fieldwork and share the findings at conferences.

Finally, I would like to thank the very special people in my life who have supported me along this journey. To my colleagues, family and friends for their kind words and prayers. To my mother who instilled in me from a young age a love for both learning about and helping my homeland. And lastly, to my dearest husband, Mohammad, for everything, Alhamdullilah.
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Abbreviations & acronyms

COGWO: Coalition for Grassroots Women Organization
EC: Emergency contraception
ECPs: Emergency contraceptive pills
FP: Family planning
HCP: Health care provider
NGO: Non-governmental organization
MMR: Maternal mortality ratio
OCPs: Oral contraceptive pills
SGBV: Sexual and gender based violence
SRHNSAP: Somali Reproductive Health National Strategy and Action Plan
STI: Sexually transmitted infection
TFR: Total fertility rate
WHO: World Health Organization
Chapter 1: Introduction

Background: Health care in Somalia

In 1991, Somalia erupted in a civil war resulting in the complete collapse of the government and state institutions, and the death and displacement of millions of people [1-6]. The ensuing absence of a central government resulted in the fragmentation of the nation with the northwestern region, Somaliland, declaring succession from Somalia in 1991, and Puntland becoming an autonomous state in 1998 [7]. While these regions have remained relatively stable both politically and economically in the years following autonomization and succession from Somalia, security in south-central Somalia has remained elusive [7, 8]. Somalia is by all measures considered one of the most failed states in the world. A map of Somalia and neighbouring countries is provided as Appendix A.

Over two decades of civil unrest in Somalia contributed to the country’s dismal human rights record, increased levels of poverty, high levels of displacement and crippled infrastructure [3, 9]. The country’s health infrastructure was damaged, and the limited human capital in place to meet the population’s basic health needs resulted in poor access to virtually every basic health service [10]. Over 80% of Somalia’s population was left without access to basic health services [11, 12].

It is important to note, however, that while the conflict has greatly contributed to the dismal status of health care in the country, pre-conflict challenges have also contributed to this reality. Africa’s Somali population inhabits much of the Horn of Africa region and is considered one of the most homogenous populations on the continent to this day. From 1895-1960, the Somali population occupying the
Horn of Africa was segmented into five colonial protectorates that included the Côte Française des Somalis, British Somaliland, the Ogaden, Somalia Italiana, and the Northern Frontier District [13]. Consequently, Somalia’s independence movement was in large part driven by the dream for a united Somalia encompassing all five of these entities, with British Somaliland and Somalia Italiana eventually uniting to form the independent Somali republic in 1960. The fervor for a united Somalia was short lived, however, resulting in the desire for former British Somaliland’s succession, and further aggravated by Siad Barre’s divisive and discriminatory policies [13].

In the wake of independence and prior to the civil war, Somalia was already one of the poorest countries in the world and approximately 80% of the population was without access to basic health services [8, 12]. Siad Barre’s military regime was neither able to maintain previously established health care infrastructure, nor ensure access for the country’s most vulnerable groups [14].

Privately and locally provided health services replaced the weak public health care system following the onset of the civil war [12, 14]. Pharmacies and drug shops are currently the most common form of private health care in the country, and although the private sector is often minimally represented in the published literature and reports, it is considered an important and valuable source of health care in developing country contexts such as Somalia [6, 12]. Another vital source of health care provision in Somalia, particularly during the years of civil unrest, has been that of humanitarian relief organizations.
In crisis, conflict and post-conflict settings, humanitarian non-governmental organizations (NGOs) have historically been vital in providing assistance to affected populations [15]. NGOs based in Somalia have filled important gaps in health service delivery due to the lack of a functioning central government, and provide some systems of accountability for health facilities they either manage or support [6]. Their presence in Somalia has been critical to the livelihood of millions of people, as they work to sustain some semblance of health coverage throughout the country [1].

While there is some infrastructure in place to meet the population’s basic health needs, the majority of services are ill equipped and mismanaged and policies are misguided. The increasing number of drug shops has the potential to worsen the situation, as the majority of drugs imported into the country are of poor-quality and provided with little to no oversight [14]. International NGOs providing health services exercise limited control as the persisting security situation on the ground decreases their supervisory presence [6].

Sustained political instability, fragmented and mismanaged health service delivery, and civil unrest are some of the factors that have contributed to Somalia’s dismal health indices. Life expectancy in Somalia is estimated at about 51 and 55 for men and women, respectively [16]. On the other end of the spectrum, Somalia’s under-five mortality is one of the highest in the world – approximately 180 deaths per 1,000 live births [1]. Furthermore, high rates of infectious diseases such as cholera, diarrhea, measles, and polio further cripple an already overburdened system [1].
It is important to note, however, that while Somalia's protracted civil war has contributed greatly to the dismal health situation in south-central Somalia, Somaliland and Puntland have enjoyed a period of peace building and relative stability. Consequently, virtually all health indicators for both regions fare better than those of south-central Somalia. While there are similarities across all zones (i.e. the majority of services are privately provided), there are many notable differences, particularly between south-central Somalia and Somaliland. For instance, the estimated total number of doctors for south-central Somalia and Somaliland is 146 and 85 respectively, despite the fact that south-central Somalia accounts for approximately 60% of the total population [6]. This contrast is exemplary of the considerable challenges that plague post-conflict settings such as south-central Somalia, which endured the longest period of civil unrest [7].

**Somalia’s post-conflict era**

While no consensus in the published literature has been reached as to a set definition for the term “post-conflict,” countries emerging from conflict and entering into a post-conflict era are notably defined by their economic and political progression, as well as a relative sense of improved security [17]. One of Somalia's most distinctive developments signaling the beginning of its post-conflict era was the inauguration of the Somali Federal Government in 2012 [5]. By that point, the all-out clan-based warfare that had plunged the country into civil unrest had essentially dissipated, and the new government received formal international recognition from governments and institutions such as the United States, the United
Kingdom, the World Bank, and the United Nations [5]. Moreover, the militant group al-Shabab that had controlled vast swathes of south-central Somalia was pushed out of the country’s capital, Mogadishu [2].

Recovery in Somalia post-conflict continues to experience its fair share of challenges. According to Transparency International, Somalia is ranked as the most corrupt country in the world [5, 18]. This has wide-reaching implications, as donors are often weary of providing funds so desperately needed to rebuild and finance critical public services and infrastructure [5]. Moreover, insecurity in the nation remains high, which has contributed to the country’s steadily increasing internally displaced population, and shows little signs of decreasing [19]. Somalia is home to approximately 1.5 million internally displaced persons, with 369,000 residing in Mogadishu alone [1, 3, 7, 10].

Addressing health care in post-conflict settings is critical, as the very nature of this period presents a host of challenges for both the affected population and those responsible for providing services. In Somalia’s case, the government remains weak and unable to transition the equally weak health system. Health outcomes of post-conflict settings are generally worse than those of other low-income, non-conflict affected countries, as illustrated by worsened life expectancy, limited health coverage, and damaged/depleted resources [20, 21]. Moreover, health coverage in countries affected by conflict is often disproportionate with concentration of health services in zones deemed safer thereby leaving many segments of the population without access to critical care [21].
Persistent threats to security are a common hallmark of post-conflict settings, and have the potential to severely impede and disrupt health service delivery. Attacks against humanitarian NGO workers are common as well as health workers, their patients, and facilities, all of which have been documented realities in Somalia [15, 20-22]. Moreover, persisting, sporadic outbreaks in conflict prevent access to important regions housing populations with high levels of unmet health needs. NGO presence is also heightened following conflicts such as Somalia’s civil war, and the poor coordination of programs in this context has resulted in ineffective and inefficient health service provision [23].

Examining health care in a post-conflict context is important, as the relationship between state building in a post-conflict era and improving health outcomes is inherently reciprocal. Improvements made to a population’s health outcomes have the potential to stimulate nation-building, and conversely, development has positive impacts on the provision of health services in the country [20, 24].

**Reproductive health in post-conflict settings**

One aspect of health care that is severely impacted in contexts emerging from conflict is reproductive health [23]. Rates of sexual and gender based violence (SGBV), maternal mortality, total fertility and sexually transmitted infections (STIs) continue to remain high well after a conflict has ended.

SGBV has long been documented as a weapon of war and as a form of exploitation in conflict settings [25]. However, this reality is not only common
throughout the duration of a conflict, but is proven to increase post-conflict and manifests as physical and sexual violence against women as well as forced prostitution and trafficking [20, 25-27]. This is especially true among internally displaced populations, whose numbers increase after a conflict, and are made up of mostly women and children. Internally displaced women are particularly vulnerable to STIs such as HIV, as well as sexual exploitation, both in the settlements where they have sought refuge and upon return [8].

The lack of government funding for health services, disrupted supply chains, and the absence of training for health workers during a conflict are some of the factors that contribute to the poor performance of health systems in countries emerging from sustained periods of conflict [28]. As countries struggle to meet the basic health needs of affected populations during the conflict, reproductive health care suffers, and emerging health systems find it difficult to cope. Countries affected by conflict obtain 50% less funding for reproductive health services than those not affected by conflict [29]. Consequently, reproductive health indices in post-conflict settings remain poor [26]. The disruption of reproductive health service delivery can have dire consequences for women who are at heightened risk of infection, overall ill health, and unintended pregnancy [30].

**Reproductive health in Somalia**

The devastation of Somalia’s already fragile health system during two decades of civil unrest and lawlessness has contributed tremendously to the poor reproductive health status of women living in Somalia. This has resulted in grave
consequences for the most marginalized women and particularly those who are displaced.

Somalia’s total fertility rate is one of the highest in the world – with an average of 6-7 children per woman [14, 24, 31, 32]. Moreover, approximately half of Somalia’s population is below the age of 15 [10]. Population pyramids for Somalia are provided as Appendix B. These figures represent the magnitude of the burden both women and the wider society are currently facing in an already challenging post-conflict period. In contexts devoid of family planning (FP) and access to quality reproductive health care such as Somalia, millions of unintended pregnancies contribute significantly to maternal deaths and unsafe abortion [33].

The need for FP in post-conflict settings is well documented. Access to a broad range of contraceptives and birth spacing measures ensure women are able to space their pregnancies and have better control of their reproductive health outcomes. Despite this fact, more than 222 million women worldwide lack access to FP [34]. It is estimated that providing contraceptives to all women with an unmet need for FP would prevent a total of 56 million unintended pregnancies worldwide [34]. The level of unmet need for birth spacing and pregnancy prevention in Somalia is 26% and only 1% of women in this context are currently using a modern method of contraception [6, 12]. Although the term “modern” as a descriptor for contraception is potentially problematic, I use this term throughout the thesis because of its dominance in the medical and public health fields.

To address the high level of unmet need for FP in Somalia, women turn to “traditional” or “natural” FP methods, particularly breastfeeding to induce
lactational amenorrhea [6]. However, for this to be considered an effective method of pregnancy prevention, women must 1) Still be experiencing amenorrhea after two months post-partum; 2) Engage in consistent and continuous breastfeeding; and be less than six months post-partum [35]. At the most primary level, outcomes for lactational amenorrhea depend on women’s understanding of these dynamics, as well as strict adherence to the behaviours. Low levels of exclusive breastfeeding among women in Somalia has impacted the success of this method [12].

Access to safe, effective birth spacing methods can reduce rates of maternal death considerably [11]. Somalia’s maternal mortality ratio is one of the highest in the world – approximately 1,200 maternal deaths per 100,000 live births [7, 36]. Despite this fact, there is very little in the published literature that provides a robust picture of maternal death in Somalia and examines the underlying causes. The little that is available is largely consistent with findings from other developing country contexts with hemorrhage, sepsis and obstructed labour as major direct contributors to maternal mortality.

Apart from the limited availability of reproductive health services in Somalia, women face significant barriers to accessing care for a host of other issues. Lack of awareness, financial barriers, and the poor quality of available services often prevent women from accessing important reproductive health methods such as contraceptives or giving birth in a hospital. Currently, only 9.4% of births in Somalia take place with the assistance of a skilled birth attendant, while the majority of women in Somalia use an auxiliary midwife or a traditional birth attendant [16].
In a desperate last-ditch effort to prevent an unplanned pregnancy from coming to term, many women in countries such as Somalia turn to unsafe abortion [33]. Consequently, unsafe abortion in Somalia represents one of the five leading causes of maternal death, and the only one that does not occur in late pregnancy, delivery or in the post-partum period [6]. Abortion in Somalia is severely legally restricted, however amendments to the Somali constitution in 2012 allowed abortion in order to save the life of the woman [32, 37].

One aspect of reproductive health in Somalia that has garnered international attention is the alarmingly high rates of SGBV in the country. Rape in Somalia is considered a problem of endemic proportions; it was prevalent throughout much of the civil war and has remained high to this day [9]. Perpetrators of SGBV have consistently and disproportionately targeted internally displaced and minority women – groups that represent the most vulnerable of Somali society [3, 9]. The compromised positions of these women is further impacted by the fact that the majority of them lack the awareness or information required to seek critical health services following a rape [3].

Unplanned pregnancy in a time of conflict and subsequent displacement has proven to place a heavy burden on women in contexts devoid of comprehensive FP services and where access to abortion is severely legally restricted. Somali health indicators demonstrate the need to aggressively address issues pertaining to women’s reproductive health, which to date have received minimal attention. In resource-poor, heavily burdened post-conflict setting like Somalia, improving access to a broad range of reproductive health services is especially critical.
**Emergency contraception**

In crisis, conflict and post-conflict settings, emergency contraception (EC) can be an important preventative measure to reduce the risk of pregnancy after unprotected sex has occurred. For many women, emergency contraceptives provide a “second chance” at preventing pregnancy after other contraceptive methods have failed [25, 38]. However, in contexts devoid of many basic FP options, particularly in the case of rape, EC may actually be the first preventative method women encounter. EC is a safe and effective method, and is especially important in contexts where abortion is legally restricted as women facing an unplanned pregnancy are at a higher risk of death, illness or disability due to complications from an unsafe abortion or childbirth [25, 38].

Given Somalia’s low contraceptive prevalence rate, high level of maternal death and unsafe abortion, EC has the potential to play an important role in meeting women’s pregnancy prevention needs. Moreover, access to post-coital contraception may mean the difference between life and death for hundreds of thousands of internally displaced women in Somalia as SGBV represents a phenomenon strongly correlated with forced population movement [25].

Pregnancies brought on by a rape can prolong and worsen the traumatic experiences for these women, especially considering these unintended pregnancies are taking place in contexts largely devoid of access to basic antenatal and post-natal care.

Currently, 148 countries have at least one brand of progestin-only EC.
registered [39]. However, according to the International Consortium for Emergency Contraception, a dedicated progestin-only emergency contraceptive pill (ECP) is still not registered in Somalia, despite its registration in all bordering countries (including Ethiopia, Kenya and Djibouti) [39]. There does not appear to be any mobilized opposition to the expansion of EC to Somalia [40].

The published literature on EC in Somalia is non-existent. Currently, all available literature citing EC in the Somali context concerns refugee populations in neighbouring countries. Studies conducted in Djibouti and Kenya among Somali refugees, for example, reveal low levels of awareness of EC among women of reproductive age [41-43], despite the fact that a dedicated ECP is registered and available in both contexts [40]. In Djibouti, EC is the least known contraceptive method (0.2%) among Somali women refugees [44].

In the absence of progestin-only EC, women in Somalia do have access to medications that can be used post-coitally to reduce the risk of pregnancy. Microgynon-30 and Neogynon, combined hormonal oral contraceptive pills (OCPs), are both widely available. Further, the progestin-only daily OCP Microval could also be used post-coitally for pregnancy prevention, although women would be required to take a total of 50 pills within 120 hours of unprotected sex in order to create an equivalent to the 1.5mg dose of levonorgestrel found in dedicated progestin-only products [45].

Expanding access to EC in Somalia and integrating post-coital contraceptives into the FP method mix has the potential to improve women’s reproductive health outcomes. Given the dearth of FP services and the restrictions on abortion in this
post-conflict setting, EC shows considerable promise.

**Study rationale**

The poor reproductive health status of women in Somalia underscores the importance of improving FP service delivery throughout the country. Moreover, the dearth of published literature on FP and broader reproductive health services including EC signals the need for robust, comprehensive research to be conducted on the ground in Somalia. FP methods such as EC have the potential to fill a major gap in reproductive health service delivery, yet no findings are available concerning attitudes or awareness, as well as if a perceived level of need exists for EC among stakeholders such as health care professionals and women. Potential efforts may have been hampered by decades of civil unrest in the country, which has created an unfavourable environment for health researchers and has resulted in the reliance on the viewpoints of stakeholders based outside of Somalia [6]. Developing an understanding of health behaviours and outcomes from the vantage point of those based in Somalia is vital to the development of future, tailored health interventions.

The existence of a central, internationally recognized federal government in Somalia represents a unique window of opportunity for future FP interventions. Indeed, accelerated development periods following conflict can provide great opportunities for the creation and implementation of new policies and national strategies.

In light of current developments in Somalia, my thesis project has proved especially timely. My project addresses the current gap in the literature exploring FP
in Somalia, with a specific emphasis on EC. Through the use of a multi-methods qualitative study, my project provides in-depth information on the current situation concerning EC in Somalia through engagement with stakeholders based in Mogadishu.

**Study objectives**

Through a series of in-depth interviews with Somali stakeholders and focus group discussions with Somali women of reproductive age, this project aims to address the following questions:

1. What is the level of awareness of EC among different stakeholders?
2. What is the perceived need for EC among stakeholders?
3. What are the various facilitators and barriers to expanding access to EC in post-conflict Somalia?

**Outline of thesis**

I have written this thesis using a thesis-by-articles approach, and it includes five chapters.

1. Chapter one is the introduction, and provides background on the current situation in Somalia, as well as recent developments in its post-conflict period. This chapter also contains the rationale for this study, the study objectives, and the thesis outline.
2. Chapter two provides information about the methodological approach employed during this study. This chapter also includes a statement of contribution.

3. Chapter three includes the first research article, which focuses on levels of awareness and perceived need for EC among stakeholders in Somalia. I have formatted this article for *International Perspectives on Sexual and Reproductive Health*.

4. Chapter four includes the second research article, which explores women experiences with, awareness of, and attitudes toward broader reproductive health services available in Mogadishu. I have formatted this article for *Reproductive Health Matters*.

5. The final chapter integrates the main findings from both articles and contextualizes the results within the published literature on reproductive health in conflict/post-conflict settings. This chapter also includes the limitations, the significance of the findings, and future directions as well as a segment on positionality and reflexivity.
Chapter 2: Methods

Given the limited published literature on reproductive health in Somalia, and the lack of data on EC in this context, we decided a qualitative study would best address our outlined study objectives. Through the use of multiple qualitative methods based on three primary sources of data, we were able to capture a range of stakeholder viewpoints. Indeed, qualitative research can provided an appropriate platform to robustly explore and explain a given phenomenon, particularly one that has been previously ill explored. This methodology explores the “meanings people attach to their social world” and how they “make sense of that world” thus enabling researchers the opportunity to interpret complex social phenomena. [46]. Our research project was divided into three main components, outlined in detail below.

Key informant interviews

In the first component of our study, we conducted formal, semi-structured key informant interviews with decision makers in Mogadishu. Through purposive sampling and with the assistance of various contacts on ground, we were able to recruit 10 participants who agreed to participate in the study. I contacted key informants based on how related their work was to our study objectives, so as to provide insight into the lack of a dedicated ECP, the potential registration of a dedicated ECP in the country, their general awareness and opinions of EC and broader reproductive health services, as well as opinions regarding the potential integration of a dedicated ECP into future national FP and women’s health policies. I
aimed to obtain a range of individual, professional/positional, and institutional perspectives and recruited participants accordingly.

We began the interviews with key informants by asking general demographic questions before proceeding with questions pertaining to participants’ involvement with sexual and reproductive health matters in Somalia, their knowledge of and experiences with EC, as well as their opinions about the potential introduction and registration of EC in Somalia in the future. We concluded interviews with discussions about participants’ beliefs about current reproductive health priorities and changes they believed were necessary to be made in the country concerning reproductive health service delivery. Following each interview, I memoed and then transcribed and translated the interviews into English.

**Structured interviews with pharmacists**

In the second component of our study, we conducted structured, in-person interviews with 20 pharmacists in Mogadishu. As the potential future service providers of EC, it was important to explore their knowledge of and experiences with EC, their current awareness and provision of broader FP methods, as well as their acceptability of a dedicated progestin-only pill (should one become available in Somalia).

We purposively selected pharmacists in the various districts throughout Mogadishu. We selected districts depending on their relative level of safety; these districts included Xamarweyne, Hamar Jajaab, Howlwadaag, Karan and Waaber. By purposively identifying pharmacists in these districts, we were able to capture a
range of perspectives. We gave selected pharmacists the choice of participating upon initial contact, or setting up a convenient time whereby the interview could take place. We conducted all interviews with pharmacists at their respective pharmacies.

We began our interviews with basic demographic questions, before exploring participants’ awareness of FP options and different modalities of EC (specifically dedicated progestin-only pills, and the post-coital use of combined or progestin-only OCPs), their previous provision of any modality of EC, and their perceptions of need for this service. We concluded interviews with a discussion about their opinions of a dedicated progestin only ECP in Somalia. I field-coded responses and later entered this information into a Microsoft Excel® spreadsheet. I also memoed after each interaction.

**Focus group discussions with women of reproductive age**

In the third and final component of our study, we conducted four focus group discussions with married and unmarried groups of Somali women in Mogadishu. As potential users of EC an possible users of other reproductive health services, it was important to focus on the knowledge, opinions and experiences of EC and broader reproductive health services with these participants. Focus group discussions consisted of 5-6 women each. One focus group discussion was held with unmarried women, and three focus group discussions were held with married women.

With the assistance of three Coalition for Grassroots Women Organization (COGWO) members, we informed women from surrounding neighborhoods of the
upcoming FGDs and asked them to participate in the study. Women were eligible to take part in this study if they were Somali, living in Mogadishu and over the age of 18 at the time of the discussion. Apart from the aforementioned criteria, participants' inclusion into specific focus groups depended on which category they identified themselves with (i.e. married, unmarried).

I conducted focus group discussions with the assistance of our study facilitator, Marian Yusuf; the discussions took place in Somali. We obtained informed consent from each participant before proceeding and audio-recorded the discussions. FGDs were conducted at COGWO and lasted an average of 60-90 minutes. The discussions began with women introducing themselves and providing basic demographic information (i.e. age, marital status, number of children). We proceeded to explore women's knowledge of EC and experiences using post-coital contraceptives (if any). We also explored women's attitudes toward EC and their perceptions of need. We also used the opportunity to examine women's knowledge and experiences with other reproductive health services in Mogadishu. As a thank you for participating in the study and to cover any costs associated with travel, women were given USD10 and we offered them the contact information for a number of organizations and service delivery points located throughout Mogadishu.

Prior to beginning my fieldwork in Somalia, I developed interview guides for all three components of my study with the assistance of my supervisor. I then translated these materials into Somali and Marian Yusuf reviewed the Somali versions (once I arrived in Mogadishu).
Analytic approach

Each component of this project required its own analytic plan. Following data collection, I transcribed and translated all key informant interviews and FGDs. We utilized the transcripts as well as memos and field notes to conduct a content, and subsequently a thematic, analysis of the data. We used a priori (pre-determined) codes as well as inductive codes and we managed all data using the software, ATLAS.ti.

Interviews with pharmacists were field coded and our content and thematic analysis coincided with initial data collection. We analyzed the FGD transcripts using a constant comparison approach. We reviewed each of the four transcripts in relation to each other, and through this approach we were able to identify the various similarities and differences between groups, particularly in relation to marital status.

Through second and third level analyses, we were able to identify key themes and relationships between ideas. We were also able to attach meaning and significance to the findings. Although each component of the project was analyzed separately, the final phase of the analysis involved the integration of these various components for a further analysis of the data. This allowed us to identify similarities (concordance) and differences (discordance) between the three different components included in the larger study, and allowed us to present a comprehensive picture of EC in Somalia.
**Ethics clearance**

We received approval to conduct this study by the Health Sciences and Sciences Research Ethics Board at the University of Ottawa (File# H02-14-09) The letter of approval is included as Appendix C. Although there were no formal bodies in Somalia to evaluate and approve research projects involving human subjects at the time of our study, the Coalition for Grassroots Women’s Organization (COGWO) determined that our study design was appropriate for the local context.

**Statement of contribution**

My role as the Principal Investigator of the study involved designing the research project and the instruments, collecting and analyzing the study findings, and developing both articles included in this thesis. Both articles were developed according to the criteria of the prospective journals.

My supervisor, Dr. Angel Foster, provided guidance throughout all stages of the project. She worked with me to design the initial project idea, write the proposal and ethics application, secure funding for the project, and formulate my study instruments. She provided me with the training required to conduct in-person interviews and focus group discussions, as well as how to effectively analyze, interpret, and disseminate my study findings.

Mohammed Koshin Dahir was my research assistant while based in Mogadishu. He assisted me with recruiting participants for the first two components of my project and scheduling interviews, facilitating interviews in Somali with me (as a native of Somalia and Kenya his fluency of the Somali language was stronger
than mine). Marian Yusuf was the study facilitator for the third component of the project. Her role as the head of COGWO assisted me with securing a location for the FGDs to take place, contacting COGWO members who assisted with recruiting FGD participants, as well as facilitating the FGDs themselves. Her influential position in Mogadishu greatly facilitated the entire course of the project, as she provided much needed guidance and raised awareness about the project to contacts and organizations based in Mogadishu.
Chapter 3: Article #1

Emergency contraception in post-conflict Somalia:
A multi-methods assessment of awareness and perceptions of need

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Word count: 5,253 (not including abstract or references)

Acknowledgements
This project was supported by a trainee grant from the Society of Family Planning (FG). AF’s Endowed Chair is funded by the Ministry of Health and Long-Term Care in Ontario and we appreciate the general support for her time that made this project possible. The study team thanks COGWO for their support of the project and assistance with recruitment, facilitation, and translation. Finally, we thank Drs. Shoshana Magnet and Sanni Yaya for their feedback on earlier phases of this project. The conclusions and opinions expressed in this article are those of the authors and do not necessarily represent the views of the organizations with which the authors are affiliated or the funders

Keywords: Reproductive health, post-conflict setting, qualitative research
Emergency contraception in post-conflict Somalia: A multi-methods assessment of awareness and perceptions of need

Abstract

**Introduction:** Following nearly two decades of civil war, Somalia continues to grapple with the effects of a national health system crippled during years of conflict. In crisis, conflict, and post-conflict settings such as Somalia, emergency contraception (EC) has the potential to serve as an important modality of pregnancy prevention. Yet Somalia remains one of the only countries in the world without a registered, dedicated progestin-only emergency contraceptive pill.

**Methods:** In 2014, we conducted a qualitative, multi-methods study in Mogadishu, Somalia to explore awareness of and perceptions of need for EC among a variety of stakeholders. Our project was comprised of 10 semi-structured interviews with key informants, 20 structured, in-person interviews pharmacists in a range of neighborhoods, and four focus group discussions with married and unmarried Somali women.

**Results:** Our findings reveal a profound lack of knowledge of existing family planning methods, in general, and EC, in particular. However, once we described EC all stakeholders involved in the study expressed tremendous enthusiasm for expanding access to post-coital contraceptive methods in Somalia and identified a number of facilitators for incorporating EC into the health system.

**Conclusion:** Somalia’s high total fertility rate, high maternal mortality ratio, and low contraceptive prevalence rate coupled with severely restrictive abortion laws make expanding family planning services a significant priority. Results from this study shed light on why Somalia continues to be a global exception with respect to a dedicated EC product and suggest possible politically and culturally resonate avenues for introducing EC into the health system.
Introduction

Following over two decades of civil war, Somalia is currently experiencing a period of relative stability and nation-building. The longstanding conflict in Somalia left the country without a functioning central government, devastating infrastructure and virtually all public systems. The absence of a central government during the civil war resulted in the local management of health care services and, as a consequence, national health plans and policies were mismanaged and misguided [1].

Published literature on reproductive health in Somalia is scarce. However, available reproductive health indices paint a bleak picture. With a total fertility rate of 6-7 children per woman and a maternal mortality ratio of almost 1,200 maternal deaths per 100,000 live births, the reproductive health status of women is evidently an issue that must be addressed [2-4]. Moreover, the unmet need for contraception in Somalia is 26%, and only 1% of women are estimated to be using a modern method of contraception [5,6].

Concerted efforts to increase more effective methods of contraception into service delivery and health education programs in post-conflict Somalia have not been documented. As abortion is only legally permissible to save the life of the woman, lack of access to a range of pregnancy prevention methods has especially dire consequences [4]. Almost all abortions that take place in Somalia are classified as unsafe, and unsafe abortion is one of the leading causes of maternal death in the

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1 In light of the reviewed published literature, I refer to the widely used classification of contraceptive methods as being either modern (i.e. OCPs, the intrauterine device, condoms, or EC) or traditional (i.e. prolonged abstinence, lactational amenorrhea, or withdrawal).
country [5]. In this context, improving access to family planning services is especially critical.

Emergency contraceptives are medications or devices taken post-coitally to reduce the risk of pregnancy [7]. Although emergency contraception (EC) has often been framed as a “second chance” to prevent pregnancy, for some women, particularly in crisis and conflict settings, EC may be the first preventative measure women encounter after unprotected sex has occurred [7,8]. Further, women in Somalia face a heightened risk of sexual and gender based violence, a phenomenon strongly correlated with forced population movement, and thus EC has the potential to play a critical role in pregnancy prevention [9,10]. Given the dearth of family planning services, EC has the potential to play an important role in improving women’s reproductive health in post-conflict Somalia.

However, as of 2015, Somalia remained one of only a handful of countries in the world that has yet to register a dedicated progestin-only EC pill [11]. Both combined hormonal and progestin-only oral contraceptive pills (OCPs) that can be used post-coitally as EC are available in Somalia, although to date there is no published information about the accessibility of these medications or awareness about EC in general [12].

Mixed methods research with Somali women in the Kakuma refugee camp in Kenya revealed that knowledge of EC was virtually non-existent [13]. However, when the researchers shared more information about EC with participants, there was near universal recognition that EC was an important option for women and enthusiastic support for efforts to disseminate information about this family
planning method [13]. These findings are consistent with other studies conducted in Ali Addeh, Djibouti and Eastleigh, Nairobi with Somali refugee women, in that knowledge of EC is sparse but the need for additional pregnancy prevention strategies is acute [14,15].

This is the context that motivated our study. In 2014, we conducted a multi-methods assessment of the awareness of and perceptions of need for EC among a variety of stakeholders in Somalia. We also explored the facilitators and barriers to expanding access to EC, as well as to other contraceptive methods, in the post-conflict period. Our project capitalized on a period of relative stability such that we were able to conduct research in Somalia proper, thus allowing for a rare on the ground look at the dynamics shaping reproductive health.

**Methods**

Our multi-national study team used a qualitative, multi-methods approach to address our primary study objectives. We conducted fieldwork in the Somali capital of Mogadishu in the summer of 2014. Our study included three primary components: key information interviews, structured interviews with community pharmacists, and focus group discussions (FGDs) with married and unmarried Somali women.

*Data collection: Key informant interviews*

We conducted 10 formal, semi-structured key informant interviews with decision-makers in the Ministry of Health, health care professionals, and
Data collection: Structured interviews with pharmacists
We conducted structured, in-person interviews with 20 pharmacists in Mogadishu. We purposely selected retail pharmacies in five different districts in order to learn about the perspectives of pharmacists working in different catchment areas. FG and MKD conducted all interviews in a combination of English and Somali at the pharmacy and at a convenient time for the participant. We verbally consented participants before initiating the interview and field-coded all responses which we later entered into a Microsoft Excel® database. Interviews lasted an average of 30 minutes; FG and MKD debriefed immediately after each interview and FG formally memoed later the same day.

We began our interviews with basic demographic questions of both the pharmacist and the pharmacy before exploring the participant’s awareness of different modalities of EC (including dedicated progestin-only pills and post-coital use of OCPs), provision of any modality of EC, and perceptions of need for this method of contraception. We concluded interviews with a discussion about the participant’s opinions about introducing a dedicated progestin-only product in Somalia.

Data collection: FGDs with married and unmarried Somali women

In order to understand better the perspectives and experiences of potential users of EC, we conducted FGDs with married (n=3) and unmarried (n=1) women in Mogadishu. Each group consisted of five to six women and based on prevailing cultural norms we constructed our groups around marital status. We present a
description of these participants on Table 1. FG and MY facilitated all discussion groups, which took place exclusively in Somali, and lasted 60-90 minutes.

We recruited participants with the assistance of COGWO using announcements, personal networks, and word-of-mouth. Women were eligible to participate if they were Somali, between the ages of 18 and 55 (inclusive), and living in Mogadishu. We recruited three groups of married women from several neighborhoods in Mogadishu; the group of unmarried women was comprised of women living in an internally displaced person (IDP) camp in Mogadishu.

Our discussions began with introductions and basic demographics. Using a facilitation guide prepared specifically for this study, we then proceeded to explore women’s knowledge of and experiences with EC and other methods of family planning, attitudes toward EC and perceptions of need, and suggestions for how reproductive health services, in general, could be improved. As a thank you for participating in the study and to cover any associated travel costs, we gave women USD10. We also provided women with the contact information for women’s health and empowerment organizations in Mogadishu. We permission, we audio-recorded all discussions. FG and MY debriefed after each session and FG took notes during the discussion and formally memoed afterward.

Analysis

We utilized the transcripts as well as memos and field notes to conduct content and thematic analyses of our data. We used both a priori (pre-determined) codes and categories as well as inductive techniques to capture emergent ideas. We managed
all data with ATLAS.ti. In addition, we used a constant comparative approach to analyze our FGDs. We conducted pair-wise comparisons for each of the FGD transcripts and memos thus aiding our ability to identify similarities and differences between discussion groups, particularly in relationship to marital status.

Qualitative data analysis is an iterative, ongoing process that began with data collection and was aided by regular team meetings and discussions. After coding each component of the project we engaged in second and third level analyses in order to identify key themes and relationships between ideas and attach meaning and significance to the findings. In the final phase of the analysis we integrated our findings from the three study components with an eye to identifying similarities (concordance) and differences (discordance). This analytic approach also allowed us to triangulate our findings aiding in the credibility of the overall study. In our results section we present the key themes that emerged during our study and use illustrative quotes to support our interpretation. We have redacted or masked all identifying information of individuals and organizations.

Ethical considerations

We received approval to conduct this study from the Health Sciences and Sciences Research Ethics Board at the University of Ottawa (File # H02-14-09). COGWO also reviewed our study protocol and confirmed that our approach conformed to local research standards. All participants provided verbal consent prior to participation.

Results
Awareness of EC is virtually non-existent

When a girl is raped, I have heard that she is taken to a doctor [and] that she is cleaned...but I have not heard of anything about preventing pregnancy [after sex]. (Married FGD participant, age 35)

Our key informant interviews, structured interviews with pharmacists, and FGDs all demonstrated that there is an overwhelming lack of knowledge about EC. Two of our key informants and only one pharmacist knew of EC. None of the women in the FGDs had ever heard of any modality of post-coital contraception. Even after extensive probing, it was clear that our participants had extremely limited knowledge of EC; several of our key informants and some of the pharmacists asked if progestin-only EC was the same as other medications that they were familiar with, including spermicides and daily combined hormonal OCPs.

Of the two key informants who knew about EC, both worked for a Somali maternal child health organization with ties to a large international NGO. In both cases, key informants explained that they had received information about EC through the NGO and their knowledge about the indications, timeframe for use, dosing schedule, and mechanism of action were generally accurate. The one pharmacist who had heard about EC was only vaguely aware of a progestin-only dedicated product and did not have substantive knowledge of the medication. None of the pharmacists in our study knew that OCPs could be used post-coitally to reduce the risk of pregnancy although most pharmacies had at least one relevant brand of OCPs in stock at the time of the interview. All of our key informants and pharmacist participants were aware of other methods of contraception at the time of the interview, including OCPs, barrier methods, and spermicides.
Our four FGDs conducted with women in Mogadishu revealed that awareness of EC was non-existent, even after probing. When we asked participants in our FGDs to share their thoughts on any medication or traditional methods that could be employed after sex to reduce the risk of pregnancy, women discussed a range of abortion practices. This included the use of large quantities of anti-malarials, aspirin, and antibiotic medications, as well as both ingesting and douching with honey and animal fat. Women explained that these different methods were often used in combination. Women understood that these methods terminated an existing pregnancy. However, most of the women in our FGDs had a difficult time conceptualizing how a medication could prevent pregnancy after sex had occurred. As a 30 year old married woman explained to the visible agreement of others in the group “I just assumed that as soon as you had sex you got pregnant immediately.”

*There is considerable enthusiasm for EC*

Yes...[EC] is very important, very important [even] for my friend with 11 children [who doesn't] use contraceptives. It would be very nice [to expand to Somalia]. (Key informant, physician based in Mogadishu)

After ascertaining participants’ knowledge level about EC, we spent a significant amount of time in our encounters providing medically accurate information about post-coital contraception. We explained that different modalities exist, but focused on both a dedicated progestin-only product and the post-coital use of available OCPs. Key informants, pharmacists, and women asked a wide range of questions about administration, mechanism of action, efficacy, and side effects. In our FGDs we also spent some time discussing general reproductive physiology in order to
provide context for how a medication can prevent pregnancy after sex. Once provided with information about EC participants in all three components were very enthusiastic about the medication and intrigued that OCPs that are currently available in Somalia could be used for this purpose.

Our key informants were unanimous in their belief that EC could play a critical role in family planning in Somalia and would fill a major gap in current contraceptive service delivery. Their enthusiasm was tied to an overall commitment to expanding birth spacing efforts and improving maternal child health. As one key informant working for multiple international and local NGOs explained,

[EC] is very much necessary...if she keeps on giving birth, every year [we will] have some problems with even health...the standard of [women's health] will actually deteriorate, so if they want...healthy women, having this [family planning] issue is very, very important for every family...if [the] woman is healthy, the children will be healthy, and if the woman is not healthy, the children will not be healthy.

Other key informants focused on how EC, as part of an overall method mix, could advance broader development and societal objectives in the post-conflict reconstruction period. Finally several of our key informants who work closely with survivors of rape highlighted the potential benefit EC could have for this especially vulnerable population. One key informant working for a local non-governmental organization highlighted the importance of EC in light of both her personal and professional experiences with survivors:

It (EC) is needed. We used to have women- both the mother and the daughter [who] were raped. [Another] girl was raped when she was getting water, and
then she gave birth to a child. That boy used to live with us, [we] used to care for him, so the service (EC) is definitely needed.

All pharmacist participants were overwhelmingly positive about a dedicated progestin-only pill and 18 stated emphatically that they would stock the medication if it became available in Somalia. Pharmacist repeatedly called EC “needed,” and believed that it would be acceptable. However, pharmacists were decidedly more mixed about the post-coital use of OCPs; although half of the pharmacists who would stock a dedicated product indicated interest in incorporating post-coital OCP provision into their practice, the other half expressed reservations. These reservations were largely related to concerns about whether or not women would be able to accurately take the medication. Pharmacists explained that women (and men) often overuse medications as well as use multiple medications at once, despite admonitions from pharmacists. Asking women to take 50 progestin-only OCPs could prove problematic within this broader context. Pharmacists also had concerns that post-coital use of OCPs would be used by women to attempt an abortion. Although we repeatedly explained that the post-coital use of OCPs is not abortifacient, pharmacists were concerned about being unwittingly drawn into this process.

All of the women in our FGDs expressed enthusiasm for EC. Much like key informants, our FGD participants felt that any expansion of family planning efforts would be welcome. Many women in our FGDs spoke about the difficulties associated with having too many children and having too many children too close together. As one married FGD participant, age 40, explained,
Before, there was a war, so when we were being displaced, and you [already] have a child and then you are having another child, it was really difficult... and now there is also the fact that the children need to be raised, the mom has to prepare the milk, she has to think about their education. The father doesn’t work, I only work, and when I get pregnant, [how] can I work?

In this context, a medication that could help women space pregnancies and potentially avert an individual woman’s need for an unsafe abortion generated excitement.

_A multitude of barriers to registering a dedicated EC pill exist_

There used to be an organization here [that assisted] women and children, it left due to fear... it used to help women and children by giving out services like EC, but now it has left the country. (Key informant, international NGO representative)

Although study participants overwhelmingly agreed that EC should be introduced in Somalia, participants highlighted a number of barriers that stand in the way of making EC available. Key informants and pharmacists focused on three primary issues: the absence of strong government institutions, the overall security situation, and a prioritization on issues other than family planning.

Our key informants were consistent in their belief that the lack of registration of a dedicated EC product is a reflection of weak regulatory institutions. Well-positioned decision-makers explained that the fledgling federal government of Somalia (FGS) does not have reliable systems in place to register medications or regulate which medications are marketed and sold. According to our participants, the FGS also lacks the technical expertise to issue national guidelines and standards. As one key informant working for an international NGO based in Mogadishu
explained, “Currently, the technical knowledge, manpower and budget of government is limited, there is also no funding, so even if they wanted to establish a department for such things it would be complicated.” Pharmacists echoed this sentiment; the majority of our pharmacist participants described the FGS as ineffective and unable to govern matters related to health, pointing to the frequent stock outs and lack of linguistically appropriate instructions on existing family planning methods as exemplars.

Our key informants also focused on the issue of security. Although Somalia has enjoyed a period of relative stability in comparison to the decades of civil war, the rise of al-Shabab, an al-Qaeda linked militant group, remains a persistent threat. Key informants explained that the majority of the federal budget is reserved for security but these efforts have resulted in limited success. Several key informants shared accounts of organizations or individual health care workers who have been attacked as a result of their activities. As one key informant working for a multilateral organization explained, “Now, we are scared. [In March 2014], a woman just like me was killed. She used to give out medications...She was killed [in her house after returning from work]...Three boys shot her in the head.” Key informants explained that NGOs that have previously stepped in to fill gaps in service delivery have had to withdraw because of the security situation. Thus the overall security situation would make efforts to engage with stakeholders, communities, and individual women about EC, or any new program or service, complicated. As a key informant working for several local NGOs explained, “There are two forces here – one force is [the] government and the other force is [the] opposition. This
opposition [doesn’t] want [the] government and the people who are working on [the] government side to do anything that’s good for the community or for the people.”

Finally, key informants, pharmacists, and FGD participants were consistent in their belief that family planning, in general, was simply not a government priority. Thus, any effort to introduce a new component to the family planning program, such as EC, would be challenging. Key informants explained that infrastructural development, poverty alleviation, and education have received little attention by the FGS and are very important. As explained by one NGO representative, “We can’t talk about [family planning]. People are being displaced from place to place, [their] children are dying in the streets, we don’t even have food for [them].”

Our FGD participants spoke a great deal about the inability of women to access the most basic of health services. A married woman (age 40) shared the experience of a woman in her community. “We need access to health services for women. There are some women who have had for five or six years the bones of a child who was previously miscarried. She has no place to get rid of it.” Efforts that are being undertaken appear to be taking place outside of the auspices of the FGS. One of our FGD participants served as a community health worker in a program designed to increase awareness about birth spacing, hygiene, and family planning. “Even this program that we do...the government doesn’t have anything to do with it.”

*There is cautious optimism for the registration of a dedicated product*
[EC would be beneficial] for people who have many children [and] whose children are very close together...[for] the women who work...[and also for] women [who] are raped it is really important for them. (Married FGD participant, age 35)

Although the barriers to product registration are pronounced, participants in all three components of the study were optimistic that a dedicated product could be successfully introduced in Somalia. Our participants identified several possible facilitators: the absence of regulatory agencies, a clear and pressing need for accessible family planning methods, and the overall cultural acceptability of EC.

Our key informants and pharmacists both noted that the absence of regulatory agencies might, in fact, serve to facilitate the introduction of a dedicated product. The absence of strong government agencies appears to be a double-edged sword – although there is a lack of oversight and technical expertise, there is also an absence of regulatory opposition or bureaucratic red tape. A physician key informant explained, “It’s not difficult. If you can bring [EC], it’s not difficult...it is easy to [bring] here.” Our pharmacist participants further expounded on this issue and explained that their work involves almost daily collaboration with importers. Eighteen pharmacists explained that they obtained their medications, and specifically their family planning medications, from Bakara market, the largest open market in country. This space appears to be largely unregulated by government authorities but has allowed for the introduction of other non-registered medications. Most pharmacists reported that if a dedicated product was available in this market, they would stock it, irrespective of regulatory status.
Despite the low levels of pre-existing knowledge of EC, once we provided participants with information about post-coital contraception all three groups perceived that the medication would address a pressing need. Key informants were unanimous in their view that EC could fill a significant gap in current service delivery and mobilizing support for EC’s introduction would be possible. Pharmacists in our study shared this view and explained that married women desiring birth spacing could benefit from EC and retail pharmacists could potentially benefit by making the medication available. Our FGD participants spoke specifically about the benefits of post-coital contraception to women who were raped but also strongly supported making the medication available to married women more generally. A sentiment expressed by an unmarried FGD participant, age 18, during the discussion was met with agreement by other participants, “[EC] is a service that is needed.”

Our interviews with participants across all three groups revealed that once sufficient information was provided about EC and its mechanism of action, no one raised cultural or religious concerns. Although participants expressed concern that EC might be implicated in unlawful sexual relations, they believed that the medication’s inherent benefits could override any emergent cultural or religious opposition. Procreation is valued both within Islam and the Somali culture; introduction of a medication that could facilitate birth spacing and ultimately improve the health outcomes of women and the health of their future children resonated with participants in all three study components.
Awareness raising is critical

Small knowledge is poison. You will start...making the people misunderstand the entire topic...but as long as specialized people are used to educate people [about EC] and they have a very concrete and strong planning phase...it will actually be of great benefit. (Key informant working with NGOs)

Participants from all three components from the study repeatedly emphasized that awareness raising among a variety of stakeholders would be crucial. Of course all three groups consistently explained that without knowledge of EC – among decision-makers, health services providers, and the general public – there would be neither supply nor demand. As one key informant remarked, “There needs to be awareness...when people have awareness they understand but when there is no awareness people won't even understand how to take [EC].” Key informants and pharmacists also expressed concern that if awareness raising campaigns were not carefully considered there could be a backlash to the introduction of EC. Pharmacists in particular were concerned that in the absence of information, education, and communication programs, cultural or religious opposition to EC could emerge. Pharmacists were also enthusiastic about training health service professionals, including pharmacists, so that they could be incorporated into these efforts from the outset. Finally, women also emphasized the importance of awareness raising efforts and noted that the high rate of illiteracy and poor health knowledge, in general, made this a challenge. However, participants discussed how the messages about prevention had been successful and thus emphasizing that EC is a way to prevent pregnancy would be culturally resonate. As one married FGD participant, age 40, explained,
They say the best type of medication is prevention. If the person is sick and they’re malnourished they’ll develop diarrhea and many [other] sicknesses will come, and if you do not talk about nutrition then malnutrition will come. So what is better than medicating is preventing, to go before and make them aware.

Discussion

With a growing population and a large influx of returning migrants and refugees, the newly instituted Directorate of Health under the Ministry of Human Development and Public Service is working with a consortium of NGOs to address the lack of access to family planning services in Somalia [16]. Birth spacing is among the three priorities of this new program. There is much work to be done to support the creation of policies that give Somali women access to a full range of contraceptive methods. Although progestin-only EC pills are not as effective as ongoing methods of hormonal contraception or long-acting reversible contraceptives, the importance of incorporating this method into the overall family planning mix cannot be underestimated. This is especially true in conflict-affected settings like Somalia where sexual violence is a constant threat, women often lack the ability to negotiate contraceptive use before sex, and access to trained health service providers is minimal.

Our findings suggest that there is both a need for EC and interest in EC among a variety of stakeholders. The lack of a registered dedicated product combined with a general lack of awareness among decision-makers, health service professionals, and the population at-large certainly makes incorporation of EC into health systems and service delivery guidelines difficult. However, our study also
revealed that there is currently no deeply held misinformation about EC. There also appears to be no current opposition to EC. This represents a relatively “blank slate” by which to engage in much needed awareness raising campaigns. Supporting medically accurate, culturally resonate educational efforts targeting both health services providers and community organizations engaging with Somali women may help generate champions for introducing EC. This may also serve as an entry point for discussing a broader range of family planning methods and reproductive health issues.

Our study revealed that there are significant barriers to registering a dedicated product. However, the absence of a strong central government could potentially be exploited to introduce a dedicated product into the retail pharmacy sector. Engaging with importers, as suggested by our pharmacist participants, could be an appropriate next step. However, even in the absence of a dedicated product there are currently medications available in Somalia that can be used post-coitally to reduce the risk of pregnancy. Exploring ways to engage with health care providers about the use of OCPs as EC and providing more information to pharmacists about how to talk with women this modality of EC appears warranted.

The 2010-2015 Somali Reproductive Health National Strategy and Action Plan (SRHNSAP) designated birth spacing as a priority for the country [16]. Although our findings suggest that advances in reproductive health, in general, have been muted, it is clear that family planning is on the national agenda. Our participants were clear that a high level of unmet need regarding reproductive health services exists throughout the country and the various organizations
attempting to fill these gaps are fragmented. The security situation has exacerbated an already challenging context but our study has shed light on the need for expanded efforts to improve reproductive health systems, service delivery, and education. Revisiting the SRHNSAP and identifying ways to incorporate a full range of contraceptive methods, including EC, into national strategies could help to address this pronounced need.

**Limitations**

This study has several limitations. Due to time, logistical, and financial constraints, we limited our study to Somalia’s capital. This necessarily means that the perspectives of key informants, pharmacists, and women in other areas of the country are not reflected in our findings. Given the concentration of government agencies, NGOs, and health service providers in Mogadishu, awareness of EC is likely greater in this region than in rural areas. Further, rural areas tend to be more conservative in Somalia so enthusiasm about EC might be more muted elsewhere in the country. However, as Mogadishu is the seat of decision-making in Somalia, concentrating our efforts in this region may increase the value of our results for stakeholders.

The lack of security in the country shaped our ability to carry out this project. The fragile security situation and the elusive threat of al-Shabab impacted everything from the individuals contacted for our study, the times in which this study was carried out, the location of our interviews, and payment to research participants. Navigating the security situation limited our flexibility and required
that we focus our efforts on safer areas of the city. Safety and security, for both our study team and our participants, was our primary concern and we prioritized this issue over all other considerations.

**Conclusion**

Somalia remains one of the only countries in the world yet to register a dedicated progestin-only emergency contraceptive pill. Somalia’s high total fertility rate, high maternal mortality ratio, high prevalence of sexual and gender based violence, and low contraceptive prevalence rate coupled with severely restrictive abortion laws make expanding family planning services a significant priority. Results from this study shed light on why Somalia continues to be a global exception with respect to a dedicated EC product and suggest possible politically and culturally resonate avenues for introducing EC into the health system. As the country continues to develop post-conflict, it is important that state and non-state actors prioritize expanding access to a full range of contraceptive methods, including EC, and support the integration of EC into future family planning and reproductive health strategies and interventions.
References

Table 1: Composition of FGDs

<table>
<thead>
<tr>
<th>FGD</th>
<th>Location</th>
<th>Number of participants</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mogadishu</td>
<td>6</td>
<td>Married women from Abdiaziz district, age 20-50</td>
</tr>
<tr>
<td>2</td>
<td>Mogadishu</td>
<td>5</td>
<td>Unmarried women from Abdiaziz district (IDP camp), age 18-20</td>
</tr>
<tr>
<td>3</td>
<td>Mogadishu</td>
<td>5</td>
<td>Married women from Shibis, Karaan, Wadjir and Bondhere districts, age 27-35</td>
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<td>Married women from Bondhere and Shibis districts, age 18-53</td>
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“Only God knows how much I want to space my children apart!”
Exploring women’s experiences with and need for reproductive health services in Mogadishu, Somalia

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Word count: 3,906 (not including abstract or references)

Acknowledgements
This project was supported by a trainee grant from the Society of Family Planning (FG). AF’s Endowed Chair is funded by the Ministry of Health and Long-Term Care in Ontario and we appreciate the general support for her time that made this project possible. The study team thanks COGWO for their support of the project and assistance with recruitment, facilitation, and translation. Finally, we thank Drs. Shoshana Magnet and Sanni Yaya for their feedback on earlier phases of this project. The conclusions and opinions expressed in this article are those of the authors and do not necessarily represent the views of the organizations with which the authors are affiliated or the funders

Keywords: Reproductive health, post-conflict settings, contraception, qualitative research
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Abstract
Introduction: Somalia’s complex, protracted civil war resulted in the collapse of state institutions and the deaths and displacement of millions of people. Consequently, up to 80% of the population was left without access to basic health care. With a total fertility ratio of 6.7 children per woman, a maternal mortality ratio over 1,000 deaths per 100,000 live births, high rates of sexual and gender based violence, and a low contraceptive prevalence rate, women’s reproductive health indices in Somalia prove alarming.

Methods: In 2014, we conducted four focus group discussions with 21 married and unmarried women of reproductive age living in Mogadishu, Somalia. Discussions took place in Somali, and were facilitated with the assistance of the Coalition for Grassroots Women Organization.

Results: Our findings reveal that women are generally misinformed or lack sufficient knowledge about reproductive health services. Moreover, it is clear that women are engaging in unsafe and/or ineffective abortion practices in Mogadishu, and that the need for culturally resonant reproductive health information and services is high.

Conclusion: As Somalia begins to emerge from over two decades of civil war, it is imperative that stakeholders prioritize the need for improved reproductive health service delivery. Results from this study shed much needed light on the reproductive health experiences and needs of women in Somalia, and it is imperative that these perspectives are considered in future policies and interventions.
Introduction

Somalia consistently ranks as one of the worst countries in the world for a woman to live. Somalia’s civil war erupted in 1991, essentially devastating the already fragile public health sector and leaving up to 80% of the population without access to basic health services [1, 2]. Somalia’s reproductive health indices prove alarming. The World Health Organization (WHO) and UNICEF estimate that about 1% of women in Somalia currently use a modern method of contraception [3, 4]. Consequently, Somalia’s total fertility rate is estimated to be one of the highest in the world, at approximately 6.7 children per woman [4, 5]. Only 9.4% of births in this context occur in health facilities [6], and the maternal mortality ratio in Somalia is over 1,000 deaths per 100,000 live births [7, 8]. Access to a range of existing reproductive health services, such as ongoing contraceptive methods, antenatal care, skilled birth attendants, and postpartum care is extremely limited [2]. Abortion is severely restricted in Somalia and is only legally permissible to save the woman’s life. And Somalia remains one of the only countries in the world yet to register a dedicated progestin-only emergency contraceptive pill [9].

Rates of sexual and gender based violence are critically heightened in conflict and post-conflict settings. Rape is often used as a weapon of war, particularly among the most vulnerable of women in these contexts [10] and has become a pervasive problem throughout much of Somalia [2]. Rape often goes unreported and research indicates that women are generally unaware of the types of services that should be sought to prevent pregnancy and sexually transmitted infections [2]. Displacement and forced migration has contributed a great deal to the dynamics surrounding sexual and gender based violence in Somalia. Approximately one tenth of Somalia’s population is internally displaced [4] and it is estimated that Mogadishu alone houses 369,000 of these displaced persons [2]. Women and children typically make up the majority of displaced persons in Somalia, making them increasingly vulnerable to violent attacks and sexual exploitation, often at the hands of security personnel [2, 11].

Ensuring access to safe and timely reproductive health care in crisis and conflict/post-conflict settings such as Somalia is critical. The Federal Government of Somalia (FGS), inaugurated in 2012, is the first centralized, internationally recognized government in over 20 years [12]. The country is experiencing a relative period of stability and nation building, and has since re-established the previously defunct Ministry of Health. This provides a unique window of opportunity for interventions addressing women’s reproductive health issues, which have long been coordinated by local and external actors resulting in considerable fragmentation [13, 14]. The safe and timely provision of reproductive health care services is not only a human right for all women, but necessary for the development of any country as a whole. Access to family planning, for example, can reduce up to 40% of maternal deaths [15]. Investing in women’s reproductive health interventions leads to reduced levels of poverty and increased productivity and growth [16]. As a consequence, the FGS has incorporated birth spacing into its national health priorities [1].
Existing security threats in Somalia continue to pose challenges to conducting research on the ground. Organizations like the WHO have had to primarily rely on conducting extensive literature reviews and interviews with stakeholders based outside of Somalia [6]. Often excluded are the voices of those living within Somalia itself. These perspectives are critical in developing an understanding of the health seeking behaviours of women in Somalia, which are integral to the planning and provision of tailored health services [3].

In the summer of 2014, we conducted a multi-methods study dedicated to emergency contraception in Somalia. Our overarching project included key informant interviews, structured in-person interviews with retail pharmacists, and focus group discussions (FGDs) with married and unmarried women in Somalia’s capital of Mogadishu. We have described the findings from the overall project elsewhere [18]. None of our FGD participants had ever heard of emergency contraception and thus our FGDs explored a wide range of reproductive health issues. Women discussed their personal experiences, individual and community awareness of reproductive health issues, social norms regarding contraception, abortion, and childbirth, and their opinions about priorities for improving services and programs. In this paper we draw from these FGDs to explore women’s experiences with and need for reproductive health services.

**Methods**

**Recruitment**

We conducted four FGDs with Somali women of reproductive age living in Mogadishu at the time of data collection. Representatives of our local non-governmental organization partner, the Coalition for Grassroots Women Organization (COGWO), recruited participants from several neighbourhoods in the city. We also recruited participants from an internally displaced persons (IDPs) camp in Mogadishu. Recruitment took place through announcements, word-of-mouth, and personal networks as well as in conjunction with already scheduled home visits by COGWO representatives. Given prevailing social norms and our desire to engage a range of women, we constructed our FGDs around marital status. We conducted three FGDs with married women and one FGD with unmarried women from the IDP camp. Each group was comprised of five to six participants.

**Data collection**

We held our FGDs in a private meeting space provided to our team by COGWO. MY led the discussions and FG co-facilitated the discussions and took copious notes throughout. We used a discussion guide created specifically for this study and all discussions took place in Somali. The discussions began with women introducing themselves and providing basic demographic information about themselves and their family structure. We then explored women’s knowledge of, attitudes toward, and experiences with emergency contraception. Our next domain of inquiry centered on women’s knowledge of, experiences with, and perceptions of need for other reproductive health services. We focused this section of the discussion on
contraception, abortion, pregnancy, and delivery care. We concluded with a discussion of priorities for improving reproductive health services in Mogadishu. We obtained verbal consent from all participants before proceeding with the FGDs and audio-recorded the discussions. Each discussion lasted an average of 60-90 minutes. As a thank you for participating in the study and to cover any costs associated with travel, we gave women USD10 and at the end of the discussion provided participants with contact information for relevant women’s empowerment organizations and reproductive health agencies. Immediately after each discussion, MY and FG debriefed on the content, dynamics, and facilitation; FG formally memoed after each FGD in order to reflect further on the overarching dynamics and begin the analytic process.

**Analysis**
We used ATLAS.ti to manage our data, which was comprised of translated (to English) transcripts, memos, and field notes, and conducted content and thematic analyses. Qualitative data analysis is an iterative, ongoing process that begins with data collection. Based on our study questions and discussion guide we developed *a priori* (pre-determined) codes and as we familiarized ourselves with the data we created additional codes to capture emergent ideas. After coding each component of the project we engaged in second and third level analyses in order to identify key themes and relationships between ideas and attach meaning and significance to the findings. Because the number of FGDs was small, we used a modified constant comparative analytic strategy in which we conducted pair-wise comparisons of each discussion. This allowed us to further refine our thinking regarding the similarities and differences between the discussion groups, with special attention to marital status and IDP residence. Regular study team meetings guided our overall interpretation.

**Participant characteristics**
Twenty-one Somali women participated in our FGDs- five unmarried women, aged 18-20, and 16 married Somali women, aged 18-53. All of the married FGD participants and none of the unmarried women had children. Our FGD participants came from four different districts in Mogadishu - Abdi-Aziz, Bondhere, Karan, and Shibis. Two of these neighbourhoods - Shibis and Abdi-Aziz- are characterized by a relative sense of security and their small size in relation to other districts. However, Karan and Bondhere are two of the largest districts in the city, and are characterized by higher levels of insecurity, displaced populations, and a largely ethnic Somali population. These districts represent the inherently diverse nature of Mogadishu- a city whose social, cultural, political, and economic characteristics vary greatly depending on the district. Those who were employed at the time of our FGDs owned small businesses (n=4), worked on farms (n=1), or worked as nurses and community health programmers (n= 3). Nearly all of the women in our FGDs were ethnic Somalis. None of our married FGD participants relayed information about their levels of education, however four of our unmarried FGD participants were enrolled in private school in Mogadishu at the time of the discussion.
Ethical considerations
The Health Sciences and Sciences Research Ethics Board at the University of Ottawa approved the study protocol (File # H02-14-09). COGWO also reviewed our study and determined that our approach met local research standards. Because of the high rates of illiteracy in Somalia, we asked participant to provide verbal consent prior to participation. In our results section we present the key themes that emerged during our discussions and include illustrative quotes to support our interpretation. We have masked or redacted all personally identifying information and have used pseudonyms for our participants.

Results

Knowledge of contraception is limited and misinformation is widespread
“Only God knows how much I want to space my children apart! I want to space my children apart so bad...right now my child is two months, and my period already came back, what am I supposed to do?” (Noura, 30)

Our participants evinced limited awareness about a full range of contraceptive methods available in Somalia. In our discussions, married women explained that oral contraceptive pills (typically referred to by the brand name “Vente Uno” or “Twenty One”) and condoms could be purchased in pharmacies or procured through some of the NGOs working in the region. However, married women discussed condoms with disdain and repeatedly expressed concern that condoms served as a method to spread HIV. Several women also mentioned Depo Provera but had only vague knowledge of what it is or how it is used. As Amina, a married 26 year old, explained, “There is even an injection for three months. You can get one for one month or three months, and she will take it [i.e. get injected] once.” None of the women in our FGDs referenced long-acting reversible contraceptives and none of our participants had heard of any modality of emergency contraception.

In contrast, almost all of the married women in our FGDs were aware that breastfeeding could be used to promote birth spacing and unlike other methods of pregnancy prevention, unmarried participants were aware of breastfeeding as well. In her discussion with other unmarried women, Yusra’s statement resulted in nods of agreement “I have heard that you can breastfeed your child.” Indeed, in all four of our discussions women spent more time talking about breastfeeding than all other methods of contraception combined. Most of the married women in our FGDs had used breastfeeding at some point as a means of pregnancy prevention. Two of our participants worked as health programmers in Mogadishu, tasked with visiting women in their homes and encouraging them to space their pregnancies through consistent, effective breastfeeding.

However, married women were generally dissatisfied with breastfeeding for birth spacing and explained that the constancy required for the method to be effective interfered with other responsibilities. As Amina explained,
“When I go to work, the child won’t get proper breast milk, and the period will come...the woman will become pregnant...my child is two years old and now I am already pregnant...and I need to go to work.”

**Women engage in a variety of unsafe and/or ineffective abortion practices**

“I’m talking about the real honey! If you mix half a litre [of honey with oil] it will release the child.” (Rone, 42).

Our FGD participants described a wide range of practices to terminate a pregnancy. Women repeatedly expressed their belief that abortion is forbidden, both legally and socio-culturally, in Somalia. However, consistent with other settings where abortion is severely legally restricted, women explained that self-induction practices, particularly with Aspirin, anti-malarials, and allergy medications, were common. Our participants also detailed a number of traditional practices to terminate a pregnancy. As Amran, age 40, explained, “I have also heard of using the fat from [sheep’s] meat...if you eat that, even if your pregnancy has advanced one month...you will get rid of the baby.”

Women also spoke of *xaqitaans*, or “sweepers,” who provide abortion services for women in Mogadishu. As Rone, age 42 explained, “They use the sweeper...they go to a doctor and he sweeps it [the foetus] out.” However, women regarded these providers with skepticism as they were aware of the various risks associated with this unregulated, illicit practice. As 40 year old Farhia shared,

“For example, a woman who after three months realizes that she may be giving birth to a bastard child [will] go to an [abortion provider] and get an injection and then have very bad problems and start bleeding and the child will come out...these women have suffered. This is thievery, someone will say I can bring this child out [just] give me money.”

**Mistrust of providers is common and influences care-seeking behaviours**

“Somali women first of all do not receive any sort of care in this country. When she becomes pregnant and when she is giving birth are the first times that she sees a doctor...A girl that is the daughter of my aunt went to a doctor when she was four months pregnant and was in pain...[She] got the medications from that gynaecologist [and] the medications that she got killed the child that was inside of her.” (Noura, 30)

Sweepers are not the only health care providers that women mistrust. A repeated theme in our discussions was the lack of confidence women had in health service professionals and the care they provide. Married women spoke about the many difficulties they had faced when trying to access health care during their pregnancies. They often described doctors as “fakes” whose financial motivations superseded the health of the women they were caring for. As Noura explained, “Even when you get pregnant and you say ‘I will visit a doctor’ you have to fear whether or not the doctor might kill your child.” Women explained that doctors
practicing in Mogadishu often mistreated women and there were no systems by which to hold them accountable.

Given this overarching context, women in our FGDs rarely interacted with health care providers and generally sought care from women in their communities. Although our participants were generally aware of the risks associated with delivering outside of a health facility, women made decisions to give birth in environments that they were comfortable with and with attendants that they trusted. Women in our FGDs relayed harrowing ordeals of births given in hospital settings. However, it was clear that measures were being taken in Mogadishu to encourage women to give birth with the assistance of a trained health professional, and to ensure women were not seeking medical care from untrustworthy medical providers. As Farhia, a community health worker explained, “If she is pregnant... [we] make sure that she doesn’t take medications from unreliable doctors”.

In addition, our FGD participant highlighted costs as a major barrier to accessing existing reproductive health services in Mogadishu. The overwhelming majority of hospitals and clinics in the capital are privately owned and operated and women explained that the fees attached to services were prohibitive and generated mistrust. As Rone explained, “The doctors here are not like the doctors from before [the war]- they just open up clinics... to feed their children like everybody else.” Although women were aware of free care offered by both local and international NGOs, they explained that these services were typically reserved for women in IDP settlements or survivors of rape. Our participants identified safe and affordable pregnancy-related care as a top priority.

The need for culturally resonant reproductive health information and services is acute
“There needs to be a lot of awareness raising and education done, people need to be reached and to be talked to. It will not take one day or two days or a year for these people to understand, it will take a lot of time.” (Ayne, 40)

Women in all of our FGDs spoke often about the need for awareness raising campaigns and information. There was general agreement that information about a wide range of reproductive health issues is necessary and that targeting both married women and men should be prioritized. Somali society is organized along patriarchal lines, and married women often require their husband’s approval for issues such as adopting any given method of contraception. Excluding men from awareness raising campaigns regarding matters such as contraception can have dire consequences, as explained by Naima,

“I have seen my neighbour who had 12 children, her youngest child was a bit paralyzed, and she said she couldn’t afford to have any other children... so she said she was going to get injected [with the Depo Povera injection]. He [her husband] refused. She was stubborn so she went and got injected anyway, so he [divorced her]; she supports her children on her own now”.
Women were enthusiastic about promoting information and services to support birth spacing. Women explained rapid repeat pregnancies took a toll on women, their children, and their families. Farhia drew from her personal experience of having 6 children and explained,

“[My children] will not find breakfast lunch and dinner... just pancakes, and all of the children develop anaemia. No meat, no eggs, no liver – they are just eating pancakes that are watery [with] some coloured tea, that’s it. So why wouldn’t the children develop anaemia?”

Women who were the sole breadwinner in the family described the financial hardship that came with having another pregnancy while caring for an infant. For these women, the ability to space births and therefore have the option of continuing to work was of paramount importance.

The concept of birth spacing was also perceived by both our married and unmarried participants as both culturally and religiously resonant. As unmarried Anab summarized, “It is good to space the children. It is good for their health, and even for the religion because the children will grow up properly.” Married women differentiated “birth spacing” from “family planning,” perceiving the latter as limiting or restricting the number of children. Within this frame, women explained that oral contraceptive pills, Depo Provera, and emergency contraception (once we had provided extensive information about the dedicated progestin-only pill), were culturally and religiously acceptable when used by a married woman. Our participants explained that awareness raising campaigns and services would be most successful and acceptable if they were positioned around birth spacing. Somali culture is inherently pro-natalist, thus large numbers of children are generally viewed as a source of socio-cultural prosperity, particularly for men. As Noura stated, “They (men) want that you give birth every year... [and the] women do not want their husband to marry another women, so that is why [they comply]”.

**Discussion**

In 2010, the fledgling federal government developed the Somali Reproductive Health National Strategy and Action Plan (SRHNSAP). This five year action plan included birth spacing, safe delivery, and the prevention of harmful practices among its top priorities [1]. Although few efforts have been undertaken in Somalia to advance these aims, the existence of SRHNSAP signals that reproductive health is on the national agenda. Further, decision-makers in a variety of sectors have recognized the importance of health, in general, and reproductive health, in particular, in advancing broader development goals. As the FGS moves forward with the creation of new five year plan, there is a window of opportunity to engage a variety of stakeholders in discussion about reproductive health priorities.

The findings from our FGDs reveals that there is much to be done to improve reproductive health information, services, and outcomes in Somalia. On average, women in Somalia have six to seven children over the course of their reproductive
lives. However, Somalia remains one of the worst places in the world for a woman to become pregnant and give birth, as they are likely unable to access safe and affordable care for themselves and their new born children. Our results echo those of previous studies exploring Somali women’s reproductive health needs, albeit in contexts outside of Somalia’s borders [3, 6, 17] and suggest that the need for action is pressing.

Our participants’ reproductive health experiences and decision-making are shaped by a variety of factors, including misinformation, restrictive laws and policies, mistrust of clinicians, and prohibitively expensive services. Our findings reveal that the low contraceptive prevalence rate in Somalia is likely not completely contributable to lack of awareness, misinformation, or cultural-religious opposition. Indeed, our participants were clear in the permissibility of non-permanent methods of contraception when used by a married couple for the purposes of birth spacing. And women in our FGDs evinced some awareness of available contraceptive methods, even if they had never used these methods themselves. Although there is certainly a need for evidence-based awareness raising campaigns, these efforts will not sufficiently address the other dynamics that have resulted in a contraceptive prevalence rate of 1% [5]. When developing reproductive health programs, women’s concerns about safety, cost, and the service quality, which were highlighted throughout our FGDs, must also be considered.

In recent years, primacy has been placed on increasing awareness about breastfeeding as a method of pregnancy prevention and the small number of programs that have been launched reflect this orientation. However, the experiences of our participants with lactational amenorrhea was decidedly mixed and women identified a number of familial and economic challenges to being able to effectively employ this method. Future efforts to engage with women in their homes and through community organizations may benefit from integrating breastfeeding information with a broader array of birth spacing strategies. Our participants were very clear about the cultural resonance of messages related to birth spacing and thus efforts to expand reproductive health services would likely benefit from incorporation of this frame.

Findings from this study also highlight the significant reproductive health service delivery gaps that exist from the perspective of those directly impacted by these limitations. As Somalia begins rebuilding state institutions, such as the Ministry of Health, after over 20 years of conflict and mass displacement, including women’s concerns into decision-making efforts regarding the development of future women’s health and reproductive health policies appears warranted.

**Limitations**

Our study has a number of limitations. Although we are confident that the themes that we identified have import beyond the immediate study population and reflect broader social norms, the qualitative nature of this study by definition means that our findings are not generalizable. Furthermore, for a number of pragmatic reasons,
include the security situation in Somalia, we limited our project to Mogadishu. Services are more widely available in the capital and many of the service delivery NGOs concentrate their work in this region. Future projects would benefit from including women in other regions of the country.

**Conclusion**

Women living in Somalia have some of the highest levels of unmet reproductive health needs in the world. Restrictive laws and policies, misinformation, mistrust of clinicians, and high out-of-pocket costs shape women’s experiences and care-seeking behaviours. Identifying avenues to expand culturally resonate information and services appears warranted and incorporating women’s perspectives into these efforts is critical. As Somalia embarks on a period rebuilding and recovery, reproductive health merits a place on the national agenda.


Chapter 5: Discussion

Our findings support the notion that Somalia’s unmet reproductive health needs are indeed considerable. Our study participants not only identified barriers to improving reproductive health services in post-conflict Somalia but some of the facilitators that could allow for overcoming these obstacles. This final chapter begins by integrating the findings from the two articles. This chapter will then explore these findings in light of post-conflict settings, and the significance/implications of our stated findings for Somalia’s stakeholders and health services providers.

Discussion of results: Integration

Our first article’s assessment of awareness and perceived levels of need for EC in Somalia, in combination with our second article’s exploration of women’s reproductive health experiences and needs in Somalia demonstrates that significant need exists. Evidently, the confluence of poor knowledge/awareness, weak infrastructure, cultural-social-religious practices, and lack of access to existing services has contributed to the overall high levels of unmet need for reproductive health (RH) services in the country. However, both articles suggest that Somalis are indeed in favour of the expansion and improvement of critical reproductive health services, and suggest a number of important considerations.
**Awareness and knowledge of reproductive health services**

Findings presented in both studies highlight the low levels of awareness about EC and RH services more broadly among all stakeholders. Moreover, those aware of these services had limited knowledge about these services, and a difficult time relaying pertinent information about them. Our first article's exploration of awareness among stakeholders about EC demonstrated that awareness of the method was low as evidence by the fact only three participants across all components of our study could identify what EC is. Consistent with this finding our second article showed that although women were somewhat aware of the various RH services in available in Somalia, their knowledge was neither comprehensive nor detailed.

Both articles also revealed that low levels of awareness and knowledge about the mentioned services gave way to a number of widely held misconceptions. Our second article explored women's beliefs and ideas about broader reproductive health services, which made apparent a number of misconceptions, including widespread beliefs that condoms are dangerous and Islam prohibits FP within the marital relationship.

While the published literature on reproductive health in the Somali context is limited, our findings are consistent with other studies that have demonstrated low awareness and widely held misinformation among the Somali population [6]. This suggests that raising awareness across all stakeholders is critical to the success of any implemented project in Somalia [6]. Our first article highlighted stakeholder's concerns about the absence of a proper awareness raising campaign prior to the
expansion of EC in Somalia. Our second article highlighted the potential for limited 
program success with regards to RH interventions in Somalia if women were 
unaware of them, and still harbored misconceptions.

Despite the existence of the Somali Reproductive Health National Strategy 
and Action Plan (SRHNSAP) (2010-2015) and its prioritization of birth spacing, safe 
delivery and prevention of harmful practices, both articles highlight the minimal 
changes stakeholders have observed in the post-conflict era [11]. Considering the 
low levels of awareness about RH services among the Somali population, current 
interventions to address these issues are either limited or non-existent. Our first 
article highlighted the lack of training that exists for pharmacists regarding 
reproductive health service provision, and our second article reported on the 
limited success of RH awareness raising programs in place. With the re-
establishment of Somalia’s Ministry of Health, and the subsequent implementation 
of national strategies and reproductive health policies in the context of dismal 
reproductive health indices among the population, increasing awareness among 
stakeholders appears warranted and timely.

**Limited, poor quality services**

Consistent with the available published literature on Somalia, both articles 
demonstrate that RH services in Somalia (and in Mogadishu in particular) are 
limited, and those that are available are generally of poor quality. EC is still not 
registered in Somalia, thus unsurprisingly none of the pharmacists or health 
professionals in our study had ever provided it to their clients. However, our first
article did reveal that EC has previously been provided to survivors of rape, on a very limited basis, following an examination at specific post-rape treatment clinics. Our second article revealed that while RH services were available in Mogadishu, modern methods of contraception are often hard to come by, and health care services available to women throughout their pregnancy and childbirth were deemed untrustworthy by women in our FGDs. Moreover, both articles relayed the general sense that the reproductive health services that were available were overwhelmingly privatized or administered by local and international NGOs, with limited government control or oversight. Somalia’s weak system of governance has contributed to the overwhelmingly NGO and donor-driven approach to the provision of RH services [6].

Although the majority of health care services have traditionally focused in urban centres in Somalia such as Mogadishu, the cost of these services is still prohibitive for many [14]. Both of our articles confirm the importance of affordability in decisions made about the types of services that are provided and accessed. Our second article revealed the types of services women in Somalia are barred from on a daily basis due to their inability to pay. In the face of a low contraceptive prevalence rate, and low rates of hospital births, high service costs further impede women’s abilities to access care in an already challenging context.

However, it is clearly not enough that services be made readily available and accessible throughout Somalia. A subtext of both articles is the importance of quality health services, and how this greatly factors into a woman’s decision to access care. Our first article touched on stakeholders concerns surrounding the provision of EC
in uncontrolled spaces such as drug shops (i.e. spaces where women cannot readily access medically sound information about the medication). Similarly, our second article provided women’s accounts and testimonies of fear associated with seeking care throughout pregnancy and childbirth especially from unskilled professionals. These sentiments are echoed throughout the literature in developing country contexts more broadly.

**Cultural, social and religious practices**

Somali norms are informed by nomadic-pastoral traditions and practices and heavily influenced by the country’s dominant religion, Islam [47]. Over 99% of people living in Somalia are adherents of Sunni Islam [48]. Although relatively limited information exists in the literature examining religion’s role in reproductive health seeking behaviours, religious teachings purportedly do play an important role in many couple’s decision-making in this regard [49]. Use of non-permanent methods of contraception within the context of marriage has long been supported by Islamic jurisprudence and prominent theologians [50]. However the interpretation of religious rulings may differ between communities, with some conservative rulers banning contraception all together and prohibiting or discouraging the provision of contraceptives in the community [50]. Furthermore, the religious value placed on procreation may also influence couples’ contraceptive decision-making.

Findings from both of our articles highlighted the important role religion plays in health professionals’ decisions to provide methods of FP, as well as
women’s decisions to seek contraception. However, consistent with the literature, stakeholders’ views regarding the religious permissibility of certain methods of contraception differed among respondents. Despite the fact that stakeholders viewed the promotion of reproductive health as something that religion encourages, there were great divides in terms of who they viewed should be able to access these services, which services are permissible, and who should be involved in the decision-making process.

Both articles, however, demonstrate that consensus exists surrounding the acceptance of FP as a means of birth spacing. Birth spacing, ensuring that there is sufficient time between pregnancies to encourage maternal and child health, appears to be conceptualized differently than FP, which is perceived as actions by a couple to purposely limit their number of children. Somalis take great pride in their number of offspring, and view procreation as a norm supported by both the culture and Islam. Our findings support the published literature referencing Muslims’ preference for the spacing of births rather than using methods to control the number of births [51, 52]. Consideration of this frame would likely be important in any awareness raising efforts.

Culturally, Somali society is organized along patriarchal lines. This is an important consideration, as women’s reproductive health outcomes have been proven to be influenced by the attitudes, beliefs and behaviours of men [53]. Both articles highlighted this cultural phenomenon, and make apparent the considerations stakeholders believed should be made to address this. Future
interventions and awareness raising efforts must include men as important stakeholders.

Weak governance

The Somali Federal Government is relatively new, and fraught with political infighting, instability, and severe insecurity. Terrorism, piracy, and disputed borders are some of the issues that continue to threaten the country’s security and critically hamper development [5]. Both articles highlighted stakeholders concerns about weak governance and the lack of infrastructure, and the implication of these dynamics on Somalia’s mismanaged health sector. Participants relayed their concerns about a government that is too weak and too over burdened with other issues to handle matters such as access to RH services for women. Understandably, they found it hard to imagine how a government ill-equipped to manage the country’s endemic insecurity would prioritize women’s reproductive health, considering the Ministry of Health is still trying to cope with other basic health care needs.

Weak governance also means no control over the sorts of services that are provided, and there is no accountability for health care professionals. Both articles highlighted the concerns stakeholders (including health professionals themselves) have of bringing services to a country where there was no oversight. The reality of “fake” or unskilled professionals in Somalia was a concept all too familiar among stakeholders, and was a phenomenon particularly addressed in our second article when women spoke about the benefits of delivering their children in hospitals but
were too fearful of the repercussions. While there may be no way of knowing for sure, unskilled professionals are potentially a major contributing factor to the high levels of maternal death and disability in the country.

The government’s inability to increase security and control throughout the country, and particularly in Mogadishu, has heavily impacted health service provision. Health care professionals in Somalia, patients, and facilities are impacted by the persistent insecurity. Most notably, Medicines Sans Frontiers suspended operations in Somalia in 2013 after 22 years of service due to the continued attacks on its staff and facilities, leaving up to 1.5 million people without access to health care [22]. This resulted in a major gap in service delivery in a country struggling to meet its population’s basic health needs. Stakeholders relayed the importance of improving security for health professionals; otherwise future interventions will continue to be limited in scope.

**Implications of findings in Somalia post-conflict**

Somalia’s recent move from a transitional government, to an internationally recognized federal government, has seemingly marked the end to over 20 years of lawlessness [5]. International recognition has allowed Somalia to return to the global stage, and provided a platform for the country’s accelerated development in a post-conflict era. Government institutions such as the Ministry of Health have been re-established, and recognition from key international organizations such as the International Monetary Fund, the World Bank and the United Nations has meant that Somalia is now able to receive much needed financial assistance [5].
Indeed, Somalia has made great strides in the years following the inauguration of the Somali Federal Government. Al-Shabab no longer controls any major cities, including Mogadishu, which has meant that regions previously barred from accessing vital services are now able to do so, and both the government and NGOs have re-established themselves throughout the country. The relative stability provided largely by the African Union Force’s presence (particularly in Mogadishu) has allowed key state and non-state actors to resume work that was severely restricted due to the conflict. However, it is also important to note that Somalia is still shaky and trying to navigate many challenges in the post-conflict era.

Crippled infrastructure, weak governance, and limited resources are a few of the challenges that states are met with following sustained conflict [23]. The complete collapse of the state in Somalia, however, has complicated matters further as the government has had to essentially build state institutions from the ground up, whilst addressing a myriad of social, political and economic setbacks as a result of the war. Addressing reproductive health in post-conflict states such as Somalia clearly requires a unique and tailored approach, considering the various social, economic and political complexities that may potentially hinder recovery.

**Study findings: Significance and implications for stakeholders**

While the published literature on reproductive health in Somalia is limited, our study has supported findings from the literature that awareness among stakeholders in the country concerning reproductive health is low. Our study has shed much needed light on levels of awareness on the ground in Somalia, as
interviews among Somali stakeholders have historically been limited to actors based outside of Somalia. Furthermore, previous studies exploring EC in the Somali context have been limited to refugee populations based outside of the country. The available published literature has been beneficial in illustrating just how systemic and pervasive issues such as maternal mortality, SGBV, and lack of access to basic reproductive health care have been in Somalia. However, the voices of those impacted by said issues are hard to come by and often not represented in the literature.

As the country begins to regain some semblance of stability, tailored interventions to meet women’s reproductive health needs must not only consider the views of those providing services, but those accessing these services as well. Our qualitative, multi-methods study conducted in Somalia allowed stakeholders the opportunity to not only address issues our team highlighted throughout our interview guides, but also a platform to discuss issues that may not have been considered by our team. For our participants, inclusion in a study was novel, and the project was met with a great deal of enthusiasm and gratitude.

As Somalia works to reverse damage done to its national health care system. The 2010-2015 SRHNSAP has prioritized birth spacing; this represents a huge step in addressing the unmet contraceptive needs of Somali women [31]. The availability of services such as EC would undoubtedly provide women with a vital service for preventing unwanted pregnancies and has the potential to reduce the number of unsafe abortions in the country.
Our findings are exceptionally timely. Given the dearth of information about EC in Somalia and the promising role that this method could play in addressing women’s pregnancy prevention needs, this study has the potential to make an important contribution to future efforts to expand awareness about and access to the method. Furthermore, future reproductive health interventions pioneered by state institutions, NGOs, and health professionals would benefit from the suggestions made by stakeholders in our study; these ranged from how to best raise awareness about EC and broader reproductive health services among different stakeholder groups, where and how methods like EC should be made available, and how to navigate the various cultural, religious, social, and political barriers that stand in the way of reproductive health service delivery.

In addition to contributing to the peer-reviewed literature on EC in crisis and conflict/post-conflict settings, we intend to proactively share the results of our project with key stakeholders, including representatives of the Somali Federal Government, and important non-state actors such as non-governmental organizations based in Somalia.

**Future directions**

Our study has provided a much needed first glance at the awareness and perceived levels of need for EC in Somalia, as well as a the experiences and needs of stakeholders with broader reproductive health services. As Somalia prepares to hold the first democratic elections in 2016, it would be advantageous to explore
current policies in place as well as proposed measures that will be taken in the future to address women’s unmet reproductive health needs.

Our study also explored the availability of various reproductive health services in Mogadishu, as well as the providers of these services. This represented a small component of our project, so it would be important to more rigorously explore all available services from the perspective of a wider range of stakeholders, such as medical importers. Conducting a rigorous reproductive health needs assessment, which encompasses the creation of a service map, would be critical to the development and implementation of future interventions. Future efforts would also benefit from incorporating the perspectives of men – and specifically husbands.

While we anticipate our study findings will be of benefit to the humanitarian relief sector, it is our hope that state actors such as Somalia’s Ministry of Health utilize these findings to support future RH initiatives. A robust, comprehensive national effort will surely prove far more sustainable than the fragmented delivery of reproductive health services currently in place. This will ensure that methods such as EC are not only available to survivors of rape accessing post-rape care at NGOs, but throughout Somalia’s publically and privately owned hospitals, clinics and pharmacies.

Limitations

We developed this project with the intention of providing a comprehensive picture of EC and broader reproductive health services in Somalia from the
perspective of different stakeholders. Understandably, there have been a number of limitations with this project.

First, our project’s scope was limited to a 10-week period in Mogadishu, Somalia. As such, the viewpoints of those living throughout the country, and potentially in areas much less favourably disposed to health service delivery than Mogadishu, were not considered. Furthermore, a brief period of insecurity that coincided with my visit to Mogadishu limited the length of my fieldwork, although we were able to complete the proposed number of interviews. Moreover, persistent security threats within Mogadishu limited our study’s geographic scope, as zones perceived to be relatively dangerous were excluded from our study, and thus limited our ability to gain insight from the whole of Mogadishu.

Due to technological limitations in Somalia, my recruitment plans across all three components changed significantly. As a result, the selection process relied heavily on contacts based in Mogadishu who were aware of individuals that may be interested in taking part in the study. Finally, it was challenging to interview key informants from government agencies due in large part to the security situation. Key informants in different ministries may have different perspectives.

**Positionality and reflexivity**

Throughout the duration of data collection, it was always important to consider my positionality and the role this could play in influencing the progression of the research study and its outcomes. As qualitative research is inherently interpretive, it is important that the researcher ensures s/he is cognizant of
herself/himself and her/his pre-conceived notions [46]. As a qualitative researcher, we assemble meanings from the data, the published literature, as well our experiences and through reflexivity, we are able to bring these various methods of learning together. Thus, reflexivity acknowledges one’s inherent part in the research process, and suggests ways in which the researcher can navigate the various complexities that are present, while mitigating his/her subjectivities [54].

My position as a Muslim, Somali Western health researcher created an interesting dynamic, in which I was perceived as both an insider and outsider to the community in Mogadishu simultaneously. My experience is similar to those reported in the insider/outside literature [55, 56, 57]. Participants were generally excited to be sharing their viewpoints with someone they felt they could trust their viewpoints with, and whose position as a Westerner (they perceived) had the power to create meaningful change. Understandably, this was not true of every situation, as some stakeholders were weary of my position as an outsider, particularly in a climate of persistent hostilities and insecurity in Mogadishu.

Consistent memoing and note taking helped me to make sense of the information I was presented with throughout the fieldwork process. This proved beneficial throughout the data collection and analysis process, as memoing and note taking assisted me with developing more tailored probes for subsequent interviews, and allowed me to mitigate the effect of potential biases in the analytic stage. A prominent example was my initial limited attention to religion’s role in the reproductive health behaviours and outcomes of women in Mogadishu. As a practicing Muslim woman, I perceived the numerous mentions of Islam, faith and
God as mere subtleties. However, through taking notes, writing memos after each interview, and discussing the major findings with both my RA Koshin and my local study facilitator Marian, I began to appreciate the prominent role Islam played in shaping the beliefs and behaviours of our study participants, and thus as a major theme throughout the study.

Conclusion

As Somalia begins to recover from over two decades of civil unrest, a review of the limited published literature in combination with our study’s findings has revealed the critical importance reproductive health care must be given moving forward. Improving access to reproductive health services such EC has the potential to improve the lives of millions of Somali women, particularly those who are displaced within Somalia’s borders and lack access to virtually all basic health care services. Expanding access to services such as EC are of critical importance, as levels of maternal death and SGBV remain some of the highest in the world post-conflict, and abortion is severely legally restricted.

Findings from our study have filled an important gap in the literature regarding EC in Somalia, and have largely supported the available literature citing RH more broadly in this context. Evidently, EC is a little known method among stakeholders particularly in relation to other FP methods, but a need for the method does exist. Stakeholders were generally aware of other methods that could be employed to prevent a pregnancy, but it is clear that a great deal of awareness raising needs to take place to ensure safe, effective, consistent, and timely use.
It is clear that external actors such as the various NGOs based in Somalia have prioritized reproductive health in this post-conflict setting. However, as the country attempts to develop its own health system, state actors such as the Ministry of Health must support the development and implementation of policies and strategies that prioritize the improvement of reproductive health care in the country.
Appendix A: Map of Somalia and neighbouring countries

Source: United Nations, 2011
Appendix B: Population pyramids (Somalia)

Appendix C: REB Approval letter

Ethics Approval Notice
Health Sciences and Science REB

Principal Investigator / Supervisor / Co-investigator(s) / Student(s)

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File Number: H02-14-09

Type of Project: Master's Thesis

Title: Emergency contraception in post-conflict Somalia: Assessing awareness and perceptions of need

Approval Date (mm/dd/yyyy)  Expiry Date (mm/dd/yyyy)  Approval Type
04/23/2014 04/22/2015  Ia

(Ia: Approval, Ib: Approval for initial stage only)

Special Conditions / Comments:
N/A
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