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Access to information on sexual reproductive health amongst young women in Mara region, Tanzania

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Introduction

Sexual and Reproductive Health

High prevalence of HIV, teenage pregnancy and unsafe abortions are challenges faced by many countries in the Global South. Sub-Saharan Africa, which accounts for 68 % of the total HIV-positive people, is a region where youth is greatly affected by health problems while also being a region where around one third of the population are between the age of 10-24 (Aaro et. al., 2014; Population Reference Bureau, 2013). Research has shown that much of the health problems that arise are due to a lack of general basic understanding on *"reproductive biology and prevention methods"* (Aaro et. al., 2014). Youth is typically in better general health shape compared to other age groups, however when it comes to sexual and reproductive health those falling in this particular age group are more vulnerable and some of these issues could have a long-lasting negative effect if not handled properly (Chandra-Mouli et.al., 2015). Engaging in open discussions on sexual and reproductive health topics is not always fruitful due to social and cultural barriers. Nonetheless there has been an increasing recognition of addressing these topics as a method of preventing health problems in the region (Dessie et. al., 2015).

The notion of Sexual and Reproductive Health (SRH) was first brought to light in 1994 during the International Conference on Population and Development where this definition was given; "*a state of complete physical, mental and social wellbeing and not merely the abscence of disease or informity, in all matters relating to the reproductive system and to its functions and processes*". The definition of SRH is complex and interdisciplinary and interlinks with several areas such as marriage, pregnancy, economy and education (Lee-Rife et, al., 2012). Focusing on global SRH development is profitable from many perspectives, particularly from a social and economic point of view. Over one million deaths per year among young people are related to health issues such as HIV, teenage pregnancy and suicide and finding preventive methods would ensure a more healthy youth population. From an economic point of view, it is profitable to have a high amount of work-capable population. As in the case of sub-Sahara, where a considerable part of the population is young, youth as a working force could strengthen the labour market and boost the economy of the country considerably (Chandra-Mouli et.al., 2015).

ICT for development

An effective and profitable tool for development purposes is the implementation of ICT (Information and communication technologies) because of the large number of media users among youth as well as it being cost-effective (Edouard & Edouard, 2012). Information and communication technologies for development (ICT4D) refers to the application of

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information and communication technologies (ICTs) toward social, economic, and political development, with a particular emphasis on helping excluded and marginalised individuals and communities. This method is considered effective not least when referring to SRH issues. The World Health Organization outlined in 1986 the usage of different types of media and communication channels to increase knowledge on health issues among youth (Edouard & Edouard, 2012). "Sexuality education is key to reducing risks and improving adolescent sexual and reproductive health (SRH) outcomes, however many young people lack adequate knowledge and experience poor access to comprehensive SRH information" (Kennedy et. al., 2014). Effective communication is seen as a key factor in forming a correct understanding about SRH, particularly for people "who are at the stage of cognitive and sexual development." "The value of media for health promotion activities among youth has long been recognised" (Edouard & Edouard, 2012). Both formal and informal sources of information and communcation channels have shown a positive effect in reducing risk-related SRH behaviours among youth, particularly adolescents (Stidham-Hall et. al., 2012). The debate that ICT is becoming a significant method to tackle developmental issues throughout the globe is however not without its challenges. The "leap" to ICT is not always easy and various issues need to be taken into account before several countries, including those in sub-Saharan Africa can implement the strategy on the national level while matching it with local infrastructure and access to available resources (Mercer, 2005). There is for example a growing assumption that middle and low income countries should implement a quick transition towards the use of internet. But even though technological development implies increased access to internet, for many it remains too unavailable and expensive whereas focusing on more accessible technologies such as mobile phones has proven to be more successful (Molony, 2009). This is because some ICTs match better the local environment of the region or country where it is planned to be implemented, therefore it is crucial not only to be aware but also to have a solid understanding of the local underlying social and economic structures.

The challenges discussed above are also relevant for Tanzania. With a population of 50 million, it is a country with a steady gross domestic production growth (GDP) and recent economic and social reforms. With a substantial recent foreign investment as well as a relative political stability Tanzania appears to be an example of a country headed for social and economic development. Nonetheless around 12 million people "*live below the national poverty line*" and regardless of Tanzania's recent development, the figure has remained unchanged since 2007 as a result of the country's demographic increase. With an annual growth rate of 3.1 %, Tanzania is among the countries in the sub-Saharan Africa with the

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highest population growth. Consequently a considerable part of the country's population is made up of young people who are at the stage of transitioning from adolescents to adults (The World Bank, 2016). Rural landscape is predominant in Tanzania, where around 70 % of the total population resides. The rural area is also "*where the extent and severity of poverty is greatest*" (Molony, 2009). The wide accessibility and availability of the various forms of information and communication technologies allows for a wide usage, even in the most remote areas, which is why the specific approach is becoming increasingly popular and relevant (Edouard & Edouard, 2012; Molony, 2009).

Tanzania has witnessed a fast development and growth in the area of ICT, accounting for the country's wide range of press, TV and radio channels both in Swahili and English. The media landscape in the country is rich and diverse and the country enjoys a wide range of various sources of information. But due to a limited infrastructure in many parts of the country, e.g. no electricity and poor roads connecting towns, it is difficult for media channels to gain a wide accessibility and availability (Murthy, 2011).

From several different perspectives, Tanzania is a country at crossroads, with multiple social, economic, political and health reforms implemented during the past years. Tanzania is also expected by many to develop into a model of "information society" (Mercer, 2005). Even though the successful implementation of ICT does not come without challenges, using ICT has proven to be an effective strategy which generates positive results as shown by multiple research and studies, not least when it comes to its implementation to bring about social change (Molony, 2009). Public health is another area where Tanzania has been making considerable changes, with multiple reforms being implemented on a national level. The global call for improvement within the area of sexual and reproductive health, something that has been included in the Millennium Development Goals, has been translated into the country's national policy-making process. "The Government of the United Republic of Tanzania was one of the first African countries to respond to the WHO call for action for improved reproductive health service provision for young people, setting standards for youth friendly reproductive health services over a decade ago". Although it remains to see how these reforms have translated into the country's local environments, as there is a lack of substantial research done on evaluating their efficiency (Mchome et. al., 2015).

Purpose

With a fast developing media landscape but nonetheless poor infrastructure, predominant rural setting and the increasing involvement from the government to improve public health, the purpose of this research is to link the areas of information and communication technologies, youth and public health within the country by using a bottom-up approach. The research will focus on how young women in Mara region, Tanzania find information related to issues on sexual and reproductive health. Even though sub-Saharan Africa and Tanzania in particular have implemented policy changes towards an SRH youth friendly environment, further research in developing effective SRH strategies and the best way to implement these strategies needs to be advanced (Chandra-Mouli et.al., 2015).

The main focus of the research is to gain an understanding of the information flows young women use in the Mara region in the context of local cultural and social structures. The choice to focus specifically on Mara region has been done for several reasons. First of all, there hasn't been any research specifically connecting young adults and the sources of information they use on SRH issues. Mara region, situated on the northern side of Tanzania is unique in that it is the only region in the country that borders both with Kenya and Uganda which could account for the region's specific cultural border characteristics (Tanzania Development Support, 2013). There are more than 120 unique ethnic groups in Tanzania, the Kurya one being the biggest in the Mara region. Features characteristic to the group are dominant traditional norms and values and a high prevalence of practicing cultural traditions such as female genital mutilation (FGM) and early marriages. For example Mara is a region where FGM is highly predominant, with a rate of over 80 %. Within the local culture and tradition, FGM is regarded as a transformation from a girl to woman, and thus after undergoing the procedure a girl is considered ready for marriage (Avalos et.al., 2015). The average age of undergoing FGM in the region is between 10 and 16 years, which results in many girls marrying when they are at the stage of psychological and health development. Marrying at a young age has several documented disadvantageous consequences connected to health, such as a high number of HIV infection, complications during pregnancy due to the early age of child bearing as well as an increased risk of domestic violence (Erulkar, 2013; CDF, 2009). It is therefore interesting to investigate the link and interplay between the rapidly changing social, economic and health landscape, especially in the area of ICT, in contrast with the prevailing traditional norms of the specific region in order to see how these translate into the area of sexual and reproductive health.

Analytical framework

Empowerment

Empowerment, a term widely used in development studies, has several connotations connected to the social, economic and political realms. Multiple definitions on empowerment have been offered, ranging from empowerment as the ability for someone to make their own decisions or to exercise power in order to bring about change. Empowerment has been widely used as a concept however the exact definition or meaning of the term remains a bit vague. Critical theorists refer to empowerment as a new "development buzzword" that has become popular in research and development work (Goldman and Little, 2014). Nonetheless, empowerment has been successfully applied as a theoretical framework in a wide range of studies. Being a notion on an individual and a collective level, empowerment can be seen as a means to achieve something or as a goal in itself (Ibrahim and Alkire, 2007). One can refer to empowerment as "enhancing an individual's or group's capacity to make effective choices and translate these choices into desired actions and outcomes" (Fraser and Villet, 1994: unpaginated). The notion of empowerment that I will focus on in this paper is connected to the definition offered by Khwaja which implies that for empowerment to be relevant it should contain two notions namely "influence" and "information" (Ibrahim and Alkire, 2007). Khwaja discusses empowerment in relation to economic factors, though the theoretical underpinnings used by the author fit the social context as well. The two, namely economic and social frameworks are connected in relation to empowerment as they both strive to achieve similar results, namely access to information for individuals or communities and the ability to make informed decisions based on that access. There is indication that young women in sub-Sahara Africa are affected by health problems to some extent due to economic duress. STIs, HIV and unwanted pregnancies are to some extent a consequence of sexual activity which young girls trade for money or basic commodities (Svanemyr et.al., 2014). Research also shows that the chance of becoming pregnant in early years is much higher for girls from lower income backgrounds compared to those from higher income backgrounds (Chandra-Mouli et.al., 2015). Therefore using empowerment as an interdisciplinary social and economic notion in this research is beneficial in understanding the complex social environment studied. The notion of empowerment developed in this framework can be applied both on an individual and community level, but since the qualitative research focuses more on individual empowerment, the reference in this research will be used on an individual level.

Having access to information flows results in a individual's ability to make informed decisions thus connecting it directly to empowerment. The notion of *"information"* connected

to empowerment is further divided in two parts, "*provision*" and "*access*". Empowering an individual results in access to information which will help the individual's decision making process as well as the ability to better translate his/her own needs in order for the specific needs to be effectively understood and assessed by the parties involved. "*Access to information, the result of information flows from external institutions to the agent, can also help by allowing the agent to make more in- formed decisions*" (Khwaja, 2005). The notion of "*provision*" in this research refer to the NGOs in the region whereby by empowering individuals they can better translate their needs to the external actors. The second important factor in the theory offered by Khwaja besides "*information*" is "*influence*". Even though individuals have access to information, they will need the ability to enforce the information gained in order to achieve the desirable outcome (2005).

ICT for empowerment

The previous chapter argued on the importance and effectiveness of addressing SRH matters with the help of ICT. By using different information and communication technologies in educating and raising awareness on sexual and reproductive health topics, one contributes to the empowerment of the individual. Empowerment happens through information access and sharing. The prevalent information and communication channels in Mara region such as radio, TV and newspapers are present but limited due to the region's infrastructure and rural setup. ICT has a multi-disciplinary purpose in that its usage has broadened where for example mobile phones are used in several different ways, apart from its initial function as a communication divide (Edouard & Edouard, 2012). Being one of the most prevailing source of information in Africa, besides watching news, calling and texting friends, mobile phones are also used within the health sector (Molony, 2009). It facilitates gathering information and raising awareness on prevailing health issues in the region or verifying if medicine sold at a pharmacy is real (Etzo and Collender, 2010). Another common usage of mobile phones is for money transfer (M-Pesa), translated from Swahili as mobile money (Edouard & Edouard, 2012). M-Pesa is widely used in East Africa and allows people who lack a bank account to send money among one another. It is done through a fast and secure transfer from one phone user to another (Etzo and Collender, 2010). The advantage of the service is that it can be used with any type of mobile phone, which results in its accessibility to a large portion of the population within the region (Molony, 2009).

Local information channels

NGOs are regarded as important agents within the area of development. Goldman and Little argue that in order for empowerment strategies carried out by local NGOs to be successful three aspect need to be taken into account, namely "*agency*", "*resources*" and

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"achievements". These aspects are part of the definition of an "innovative NGO" approach which implies that the NGOs in the local environment focuses on a wide range of questions in order to tackle a problem rather than using the "magic bullet" concept (2014). There are several strategies used by NGOs in the Mara region in regard to questions on sexual reprodutive health, empowerment, child marriage and teenage pregnancy. Organising thematic workshops and cultural events, raising awareness through peer-educators and engaging youth in income generating activities are few of the methods that organisations rely on with documented positive outcomes, particularly due to the extensive use of a bottom up approach (CDF, 2009).

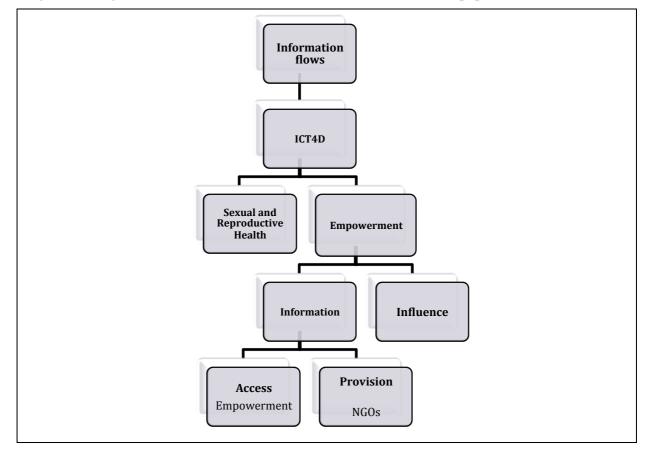


Figure 1. Diagram that shows the theoretical framework used in this paper.

Qualitative data

Semi structured interviews and focus groups

Interviews are a central tool in qualitative analysis and a research method used to collect data and information about a specific topic within social sciences. Qualitative interviews in general and semi-structured in particular are conducted "with the purpose of obtaining descriptions of the life world of the interviewee in order to interpret the meaning of the described phenomena" (Brinkmann, 2014). Semi-structured interviews should be written and wellplanned beforehand, however the questions should be flexible enough in order to create room for information gathering during the interview session (Wengraf, 2001). The specific research method seemed to be best in line with the nature of the qualitative research carried out. Semistructured interviews, in contrast with other forms of interviewing allow for flexible questions with an open end which facilitates a more thorough understanding of the social and cultural context in the given environment. The method also allows for improvisations in the form of follow-up questions as to add social nuances and complexities to the topic researched (Brinkmann, 2014). Apart from the semi-structured interviews, seven young women participated in a focus group. The choice to conduct a group interview was made because the respondents in question knew each other and due to possible sensitivities of the topic discussed there could be a more "dynamic social interaction" which would result in a an informal setting and consequently open information sharing (Brinkmann, 2014).

Interview specifications

The research was conducted with the help of Children's Dignity Forum Tanzania (CDF), an innovative NGO working on promoting children's rights. CDF uses several strategies to involve all the actors on the local, regional and national level with a focus on issues related to child marriage, teenage pregnancy, FGM and child protection. Among the most prominent methods used by the organisation are engaging young men and empowering young women through workshops on income generating activities, peer-educators and life skills (CDF, 2009).

The study, which extended over a period of five weeks, interviewed a total of 18 respondents; nine individual interviews with young women and a focus group of seven young women was carried out together with two individual interviews with a primary and a secondary school teachers. The teachers were chosen as a result of indications from many young women during the interviews that teachers are one of the main and most trusted sources of information. Furthermore broader sexual and reproductive health topics are incorporated in the curriculum in Tanzania both during primary as well as secondary school education. The interview

questions targeting young women were divided in three parts. The first part focused on the sociodemographic characteristics of the respondents such as age, location, living arrangements, occupation, highest form of education and social status. The second part focused on sources of information access that young women use while the third and most encompassing part focused on information flows regarding topics related to sexual and reproductive health. When conducting the interviews with the teachers the main idea was to acquire an understanding of the school system and curriculum structure within the country, as well as the teachers' own evaluation of the efficiency of the sexual and reproductive health incorporation within the curriculum.

All participants agreed through a verbal consent to the information being published and were informed of the purpose and results of the interviews. The research participants were also informed about the confidentiality of their answers, done by disguising the participants real names. Some of the women interviewed lived nearby, while others had to travel from the surrounding wards to attend the interviews. In that case the transportation costs were reimbursed. The women that participated in the focus group had income generating activities, and as an appreciation of their time to answer the questions each woman received 5000 TZS (2 EUR) afterwards. This was an estimated remuneration equivalent to the earnings they would generate during the time they were away. Two CDF employees assisted with live translations as the interviews were conducted in Swahili, the official language in the country and the language that all the young women were fluent in. The qualitative data was written down at the same time as the interviews were conducted and reviewed directly afterwards to verify that no essential information was missing.

Limitations

One of the limitations of this study is the fact that the research will be conducted and focused specifically on the Mara region in Tanzania, hence limiting the generalizability of the study. However it can serve as a brief overview in the fields of ICT, empowerment and sexual and reproductive health within the area and be applied to regions with similar infrastructure. Yin (2003) notes about conducting social science research that "*[w]hile we recognize that one of the shortcomings of this sampling strategy is that it does not allow us to make any claims about how "typical or "representative" these cases are, it is unlikely that any number of indepth case studies on child marriage would ever satisfy this critique."* In the same fashion as child marriage, SRH is a social constructed notion and therefore it would be hard to draw general conclusions regardless how extensive the research might be. Furthermore, as noted in the previous section, a thorough understanding of the social complexities of a given region

must be present in order to maximize the efficient results of the applicability of ICT, therefore calling for an in-depth qualitative research of a given region is necessary for a fruitful analysis.

QDA Strategies

QDA stands for qualitative data analysis and carries the purpose of analysing the data that has been collected during qualitative research in order to "make sense" of the findings. This process, called coding is the method used in this research. Within qualitative analysis one refers to coding as a "*way of patterning, classifying, and later reorganizing [the codes] into emergent categories for further analysis.*" Several coding strategies are available within the field of social sciences and for this research several strategies were combined in order to get a complex and nuanced picture. First, all the field notes were read through and analysed multpile times, noting down key words relevant to the research. When interpreting the field notes, I looked for words, phrases or paragraphs that were repeated in several places, or were thought-provoking, or clearly stated by the participant as being relevant to the question or were similar to previous research findings. The data was written as codes. Afterwards the codes were structured in categories, based on similar patterns they share. After creating several categories consisting of multiple codes, the categories were conceptualized and discussed addressing broader questions relevant to the research topic (Saldana, 2014).

Results

Part I-Sociodemographic characteristics

A young woman, deriving from the definition of a young adult is usually defined as someone between the age of 18 to 35. The young women interviewed had an age range from 18 to 34, with the exception of one participant who was 38 years old. Even though the age deviates from the definition, the questions relating to information access and sexual and reproductive health matters were mostly about the participant's past experiences, therefore there should be no conflict arising from incorporating the qualitative data from the specific participant within the study. All participants live in Tarime district, Mara region, Tanzania and the names of the wards where the participants resided are listed in the table below. Findings show an equal division between women who finished primary school and those who finished secondary school. The most common occupation was agriculture, a predominant income generating activity within the Mara region. Tailoring was the second most common form of income. Most of the women interviewed live either with biological parents or with family of their own, whereas living alone is not very common within the community, and is seen more as a transitional period before getting married, or in case a woman is divorced or widowed. All

participants are part of Kurya tribe, apart from one participant who lived in Tarime all her life and is therefore accustomed with the local culture and traditions. Below is a table with the findings.

N 1	Occupat	Sex	Age	Education	Living arrangements	Social	Child	Ward
Name ¹	ion					status	ren	
Jackie	Tailor	F	20	Form 4, secondary	With biological parents	Single	Yes (1)	Turwa
Stella	Tailor	F	34	Standard 7, primary	Alone	Separate d	Yes (1)	Turwa
Joyce	Vendor- drug store	F	23	Form 4, secondary	With biological parents	Single	Yes (1)	Nkende
Winfri da	Vendor	F	24	Form 1, secondary	With auntie	Single	Yes (1)	Bomani
Alice	Soap making	F	26	Form 4, secondary	With biological parents	Single	No	Sirari
Grace	Soap making	F	18	Form 4, secondary	With biological mother	Single	No	Sirari
Irene	Agricult ure	F	24	Standard 4, primary	With biological mother	Window	Yes (2)	Mwema
Mary	Agricult ure	F	20	Standard 7, primary	With biological parents	Separate d	Yes (1)	Mwema
Rehem a	Hotel assistant	F	25	Standard 7, primary	Alone	Divorce d	Yes (3)	Susuni
group	Agricult ure	F	38	Standard 7, primary	With family	Married	Yes (5)	Pemba
Focus	Vendor	F	33	Form 3, secondary	With family	Married	Yes	Pemba

Table 1. Sociodemographic characteristics of the respondents (N=16), Mara region, Tanzania.

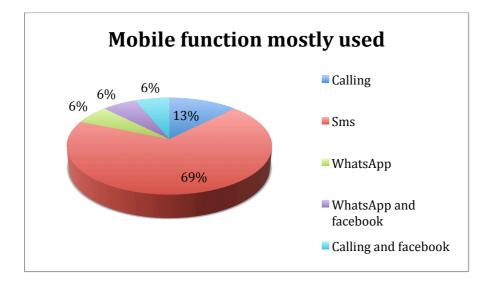
¹ All the names have been changed to protect the identity of the respondents

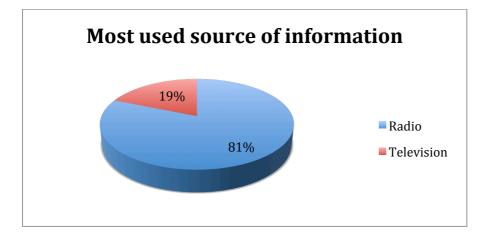
group							(5)	
Focus group	Tailor	F	32	Standard 7, primary	With family	Married	Yes (2)	Pemba
Focus group	Tailor	F	26	Standard 7, primary	With family	Separate d	Yes (2)	Pemba
Focus group	Vendor	F	20	Standard 7, primary	With family	Married	Yes (4)	Pemba
Focus group	Volunte er at dispensa ry	F	19	Form 2, secondary	With biological parents	Single	No	Pemba
Focus group	Agricult ure	F	31	Form 4, secondary	With family	Married	Yes (2)	Pemba

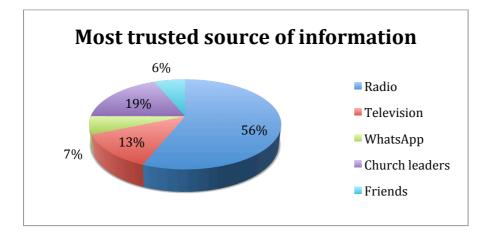
Part II-Sources of information

The second part of the research focused on the sources of information that respondents used and trusted most as well as the function on the mobile phone the participants use. The qualitative research indicates that many young women in the Mara region use mobile phones for watching news to calling friends, while texting being the most used function. Many also stated using mobile phones for money transfers (M-Pesa). Participants that had income generating activities were usually part of a club of cca 10-15 young women, and by using M-Pesa services and a separate M-Pesa mobile phone account each club member would save a certain amount of money per week for future activity investment and development. As argued in the previous paragraph, M-Pesa is a common form of mobile phone function used throughout Tanzania, that also being the case in the Mara region. M-Pesa used as a money transfer service in this context facilitates the development of the income generating activities for the young women involved, and can lead to bringing about empowerment as the respondents seemed certain about the income generating activities and their future business plans. However, even though all the respondents interviewed in the research owned a mobile phone, it is not a commodity accessible to everyone in Tanzania and it is thus important to be aware of the risk of a possible gap between different groups within the society due to the accessibility or lack of mobile devices (Molony, 2009).

When it comes to sources of information the young women use, most of them stated the radio. Also usually the respondent's answer to the most trusted source of information is the one they are using/have access to the most. Most of the young women stated calling and sms as the function on their phone mostly used. This is however because of the access to simple phones. The respondents that had access to an advanced phone indicated facebook or whatsapp as the source of information they mostly used. A study assessing the media landscape in Tanzania also point out to the radio being the preferred and prevailing media source used in Tanzania and Free Africa being the most common radio station used (Murthy, 2011).







Part III- Information about sexual and reproductive health

The research focused on three topics that are part of the SRH discourse, namely how do young women in the area find information about menstruation, contraceptives and pregnancy. Acknowledging that the area of sexual and reproductive health encompasses more topics, I believe choosing the specific ones is representative to the general attitudes towards SRH, as they mark three important stages in the development of the young women. When talking about contraceptives, the questions were divided in two parts. First part focused on the ways young women in Mara region get access to information, while the second part was about the general knowledge the young women possess about contraceptives, including whether they personally use or used any. The qualitative data shows that the young women use both formal and informal sources of information, however there is a preference of using informal sources. The calendar was one of the most prevailing methods of birth control used among the respondents due to its availability while also being a method mentioned in schools. The injection, IUD and condoms were among the modern family planning methods that most of the respondents were familiar with. Injection was the method among modern contraceptives the respondents mostly used. Previous research on contraceptives in Tanzania shows that the injection is the most popular modern method used throughout the country (DHS, 2016). According to a Health and Demographic Survey conducted in Tanzania, 38 % of women in Tanzania use a method of family planning and 32 % use a modern method of family planning (age 15-49). In the rural area the numbers are 35 % and consequently 31 % (DHS, 2016). Findings from the qualitative research conducted point to the fact that more women rely on the calendar rather than on the modern method of contraceptives. Respondents stated several reasons for not using modern methods of contraceptives. Among the most common reasons were high costs, the far location of the medical facility or not feeling comfortable asking for contraceptives at the health facility.

Broader questions

Formal-informal sources of information

One research used the "mystery client" approach to assess the health services on SRH in two regions in Tanzania. "*It was clear from our findings that negative health worker attitudes, coupled with infrastructure constraints and weaknesses, remain significant barriers to young people's access of sexual and reproductive health services across Mwanza and Iringa"* (Mchome et. al., 2015). The study furthermore indicated several incidents of inequality treatment based on gender relations, where young women that came for consultation on sexual and reproductive health issues were questioned because of their gender. These barriers to accessing information related to SRH show that youth is more likely to acquire information from other sources, such as "drug-shops" and local healers (Dusabe et. al., 2014). The consultation for STI services are free in Tanzania, however situations were recorded where patients were asked by the medical stuff to pay a small fee. (Mchome et. al., 2015) The qualitative research I conducted came to similar findings, where participants stated that they were discouraged from visiting health facilities because it was too expensive. One of the women was asked to pay for a service that she knew was otherwise free.

"One time I went to do some tests, and the person on duty then asked for money, knowing the sensitivity of my issue (problematic condition of getting pregnant) and knowing that he/she could get money. I refused and then I went to the doctor I knew and the doctor didn't request any money".

(Stella, 34, Turwa)

Previous research pointed out that in many cases there was a lack of privacy in many facilities when asking for sexual and reproductive matters where the windows and doors of the rooms to receive patients were not closed, the room was too close to the waiting area or there were several patients in the same space. Nonetheless findings show that there were health workers with a positive and friendly attitude, even though they were a minority, it is still a good indicator for progress and positive change (Mchome et. al., 2015).

During the interviews participants were asked if they would visit a health facility to ask for information on SRH-related issues and most of them stated that they did not feel comfortable in doing so, pointing out the two main reasons being the fear of being seen by neighbours and not feeling comfortable asking advise from an unknown person. The fear of being seen by a neigbour at the clinic was a reacurring concern during the interviews due to the risk that the neigbour would then tell the husband or boyfriend of the respondent. Qualitative data shows

that visiting health clinics for consultation on SRH-issues is not common within the community and the facility is used mostly for medical check-ups on pregnant women. One respondent said;

Using a contraceptive might be a sign that you are with other men. The man will not take it positively [...] and think you can easily run away with other men since you are protecting yourself. This is a common understanding among many men in this community".

(Winfrida, 24, Bomani)

Consequently, many respondents would turn to more informal sources to acquire information, such as friends, peer-educators or drug-stores. Findings from a study on the media landscape in Tanzania point out that over 60 % of inhabitants use friends as a common source of information however only 22 % consider friends a trustworthy source of information (Murthy, 2011). Findings from the research I conducted point out to a preference of using an informal way of handling possible sexual and reproductive issues that arise, however no specific indications in the findings pointed to less trust of informal sources.

Since there are significant documented barriers when trying to acquire information from more formal sources, such as health facilities, relying on friends or peer-educators or in some cases a nurse that women know is preferred. However some of the participants responded that sexual and reproductive health is not a common topic among friends, but rather a topic discussed when something happens. It is therefore handled as an issue that needs to be solved, rather than a topic of general discussion.

When asked whether sexual and reproductive health is a topic she would discuss with friends, one respondent from the focus group stated;

"We sit and discuss with friends. Some are positive about SRH and some say there are negative side-effects. Someone can get cancer from contraceptives, when you use some forms, you get cancer".

The qualitative data points out to the fact that relying on informal or limited information sources sometimes results in receiving inadequate information. One woman in the focus group remarked;

"I was using the injection. I was hearing from other people that when you use it you don't get pregnant. But I was getting pregnant." "I was using the injection, but the injection caused me problems. [...] The problem I was getting was that I was bleeding for the whole month. [...]After seeing that problem I had noone to ask, I didn't go to the hospital"- said another respondent from the focus group.

Moreover high prevalence of informal sources used within the community was also evident from several words frequently used by the respondents during the course of the interview, such as "*it happened*", "*I heard that*", "*some say*", "*a woman in the village told me*".

Even though informal sources of information were predominant and popular among the respondents, the results also show that some of the young women would feel more comfortable talking to teachers rather than parents on questions related to menstruation. When asked why she would rather ask the teacher than the parent about menstruation issues, one respondent said;

"I feel that at some point it's easier with the teacher because some parents are very tuff. They think that as much they talk to you, they feel they encourage you to be sexually active".

(Alice, 26, Sirari)

Both teachers interviewed recognised that even thought the study curriculum in Tanzania is addressing the needs for implementation of SRH related topics, there is need for greater and more specialised improvement.

"One of the biggest gaps, in my opinion is the lack of education that we give to the children to face early marriage and early pregnancy. When we talk of knowledge, we need to educate both girls and boys, but also parents, church leaders, vendors in the market and so on. We teach them about reproduction and family planning, but we don't teach them about sex life. Because they apply the knowledge about family planning only when it comes to families. They don't apply it to real life. There is a gap between uniting the two."

(Primary school teacher, Sirari)

Both teacher interviewed also pointed out to the lack of communication between parents and children as one of the major issues that needs to be addressed.

"When the children are young, the parents hide from them everything that has to do with sexuality". (Primary school teacher, Sirari)

"Parents need to attend seminars together with students, so the secret attitudes of no sharing between parents and their children can be changed." (Secondary school teacher, Muema) The secondary school where the interview was conducted had eight male teachers and only two female teachers teaching science subjects. Sexual and reproductive health is discussed during science subjects and many female students stated they felt more comfortable talking to a female teacher about these issues, however that was sometimes difficult due to a lack of female teachers in the school. Both teachers interviewed also referred to the NGOs as one of the main sources of information regarding SRH issues.

"We are heavily dependent on the NGOs for information and training on SRH issues". (Secondary school teacher, Muema)

The teacher also pointed out the need to allocate more resources in the school curriculums on SRH issues. Therefore many rely on the NGOs, that use "innovative and untraditional" methods to raise awareness on these issues. Similarly in all cases where respondents had extensive knowledge and information on SRH-related topics was due to a workshop or a peer-educator programme organised by the NGO or due to a government initiative. Therefore the information that young women received while at school was usually not enough. Another issue related to limited information on sexual and reproductive health was the fact that even if the school curriculum encompasses a wide spectrum of SRH related topics, the timing when these topics are addressed has to be improved. One of the teachers stated that at the beginning of secondary school (Form 1 and Form 2) students are provided with general knowledge and understanding on reproductive health. Only during the third and the forth year an extensive SRH programme is taught. However the average age when girls start secondary school is 13 to 14 years which corresponds with the time when many girls in Tanzania are becoming sexually active (Mmbaga et. al., 2012).

"When girls come to Form 1 and Form 2 that's when they need knowledge about SRH, because that is the time when they are transforming from girls to women. There is a gap in the syllabus."

(Secondary school teacher, Muema)

Socio-cultural structures

Multiple studies reveal the ability to address the socio-cultural structures within the specific region as a crucial factor in developing successful strategies aimed at raising awareness on SRH issues. A study on sexual and reproductive health in Vanuatu points out to barriers in

discussing SRH issues with information providers. "*Comprehensive school-based sexuality education is limited and cultural taboos inhibit open discussion of sexual matters with parents*" (Kennedy et. al., 2014). Socio-cultural structures often lead to a "*culture of silence*" regarding sexual and reproductive heath topics among young women. The limitations that stem from the social complexities within a given community lead to a limited knowledge and ability to act upon issues related to SRH (Svanemyr et.al., 2014). Several socio-cultural structures that influenced the respondents regarding information access and forming an understanding on sexual health issues were noted when analysing the qualitative researh.

"When a woman refuses to get children, she can be divorced and changed for another one" said one of the women during the focus group, pointing out social understandings within the community that might have an influence on a woman's sexual and reproductive health choices. Several other instances were indentified in the qualitative research;

"In primary school we learned about menstruation, how to be clean and not run away with men". (Winfrida, 24, Bomani)

"When I went to the hospital, they did some check ups and took some analysis and they told me I cannot get pregnant because my reproductive system is still young, it cannot produce anything. The family of my husband beat me because I could not get pregnant. I stayed with my husband only for six months. The family of my husband refused to stay with me longer because I was not getting pregnant. Afterwards I got pregnant and delivered a boy, but it was from another man". (Mary, 20, Mwema)

Sometimes women would hide from their partners that they are using contraceptives in order not to get more children. When asked if that was a common practice, one participant stated;

"Other ladies are facing the same situation. We are consulting each other which strategies to use, giving each other advise. One of my friends didn't want to get another baby before the first born would grow up. She came to ask for help and I told her what I do so she is using now the same method". (Winfrida, 24, Bomani)

"The man wants me to have a baby but I am using contraceptive. But by using the injection I do not get my period. [...] So I need to be very careful and calculate the the days of the month when I should fake my period so he won't find out". (Winfrida, 24, Bomani)

Moreover when some participants were asked if they feel free to talk to their partner about

using contraceptives, many stated that they do but they know someone from their friends that would not feel very comfortable. It was thus easier to refer sometimes to cases among friends or peers they heard about rather than ask the participants directly about their personal experiences. During the course of conducting the interviews, the general feeling was that women felt at ease while discussing topics related to sexual and reproductive health, however some caution was exercised, which points to a certain sensitivity when discussing these topics. This was particularly felt in the way some young women reacted, such as laughing, blushing or looking away to questions "*Do you feel you can freely talk to your boyfriend/sexual partner about using contraceptives*?" and "*How do you find information about contraceptives*?".

An interesting finding showed that sometimes the social status of the respondent was an indicator for the appropriate cultural expectations. Some of the young women pointed out that it was much easier to exercise control over a specific situation if you are not married even if you have a boyfriend. The gender roles within the community are therefore not always fixed but rather changing depending on the social status.

"I am free to decide to have a baby, because i'm not married that's why I have the freedom to choice. If I would be married, it would be different". (Jackie, 20, Turwa)

"I have decided to remain single for some time so noone can convince me not to use contraceptives". (Irene, 24, Mwema)

Empowerment as a result of access to ICT

Findings from previous studies done in the Mara region show that young women were regularly receiving information from various media outlets such as radio and TV regarding their rights. ICT, along with other sources of information, such as local organisations are a common source of information in raising awareness and empowering women. Many young women stated that they were aware of their own rights. However in many cases women faced difficulties in exercising these rights, due to the cultural norms of the local environment, where for example the woman runs a high risk of being excluded from the community if she reports her husband to the authorities. Findings also show that these specific cultural customs are not representative throughout the whole country, rather they are distinctive for the Mara region. (CDF, 2009) The qualitative research conducted points out to several findings connected to the women's knowledge on sexual and reproductive health issues and their

ability to exercise this information. Some cases show a positive link between access to information and the possibility for empowerment.

"I feel confident because I have information and therefore can take a stand. [...] Since I learned about SRH I feel free because I have the understanding". (Joyce, 23, Nkende)

Similarly Grace 18, an SRH peer-educator from Sirari felt more confident and aware because of the access to information and knowledge about SRH.

"I can easily talk about it (SRH). I raise awareness in the community because I am a peereducator. I raise awareness with youth on the streets and meeting them on the playground".

"Because of the workshp from CDF I have the confidence to say no. Before I didn't have the knowledge about many things. With more knowledge on the issue, I feel I have more and better rights to decide". (Stella, 34, Turwa)

Among the respondents interviewed were those who worked as community health workers. The process usually implied that the local NGOs, CDF in this case, organised educational workshops and trainings om topics related to sexual and reproductive health. Several women from different communities would attend the education trainings ans would then retur to the respective community in order to raise awareness. Goldman and Little argue that "*NGOS can facilitate the resources needed for agency to be actualized*" (2014). A bottom-up approach is usually applied, and through peer-educators one can reach out to communities where resources and access to information related to SRH issues is limited or lacks completely. The importance of raising awareness within the community is also highlighted by the qualitative findings.

"If we see a woman that has a hard life and many children we usually take her to the health centre. At the health centre they advise her to use contraceptives and not get a lot of babies". (Focus group, Pemba)

Research shows that contraceptives are frequently used as a method to prevent further pregnancies for women that have several children, rather than it being used as a family planning method. Qualitative data reveals that respondents receive information on contraceptives during a regular check up for their children while there being a lack of accessible information provided to young women during the time when they become sexually active. A report from CDF point out to similar findings. "*Public awareness on reproductive health and rights is relatively poor in Tanzania. Most of the time such information is made*

available to pregnant women when they go for pre natal and post natal clinic. " (CDF) Rehema, 25 from Susuni said;

"After having the third child, the doctor at the hospital told me to use the implant to avoid having a lot of children".

One respondent from the focus group mentioned a similar way of finding out about the usage of contraceptives;

"I went to the clinic to send my child, after being there I saw posters concerning SRH and I found out there is a lot of information and methods of contraception. The same day I asked the nurse about that and decided to use it (the implant)".

Qualitative findigs from the interviews conducted also point out that in some cases information was provided about the symptoms, rather than preventing the symptoms, such as in the case of becoming pregnant. For example all of the respondents knew what are the recognisable symptoms while being pregnant, but not all had information about preventive methods in case they did not wish to become pregnant. When asked how she found out about her pregnancy, one young woman stated;

"The second one was unplanned because I was using the calendar, but unfortunately I found myself having another baby. I felt very sick. [...]I went to the hospital to take medication and that's when they informed me I was two months pregnant" (Irene, 24, Mwema)

Many young women have their sexual debut "*at an early age when they do not know how to avoid STIs and unwanted pregnancies*". By using ICT as an effective means of communication to raise awareness and provide young women with information at an earlier age, one can reduce the level of unwanted teen pregnancies, STIS and unsafe abortions. (Chandra-Mouli et.al., 2015). Based on the qualitative data from the interviews during the focus group as well as the teachers, it is important to acknowledge that young women need better access to information during a young age, information provided by parents, teachers, NGOs but also among peer educators, during the stage of psychological, sexual and health development. One respondent also pointed out several sources where one can get information about contraceptives.

"From radio, some programmes explain that. Some workers from reproductive health departments give out information about that. Bt it's accessible to people from 18 and above. The children are not allowed to come".

(Alice, 26, Sirari)

Nonetheless, as mentioned above, a study on sexual debut among adolescents aged 16-19 in Tanzania found that around half of the respondents indicated they had their first sexual intercourse before the age of 15, that being true for both male and female respondents. (Mmbaga et. al., 2012) The study shows to a need for the information provided to be easily accessible for the young women before they start to become sexually active in order to minimize the risks related to sexual and reproductive health.

Conclusion

This study focused on identifying information flows that young women in Mara region, Tanzania use in order to find information on topics related to sexual and reproductive health. The qualitative research analysis, conducted in form of semi-structured interviews and focus groups points to the findings that the complex social formations within the area can obstruct young women from receiving information on a certain topic. Many young women interviewed gave examples of situations where they would refrain from acting upon a situation connected to sexual and reproductive health because of social or cultural norms within the community. Findings show that in some cases information on sexual and reproductive health is available however awareness of its availability is limited or not considered appropriate due to the young age of the individuals. Those who had a solid knowledge and understanding on sexual and reproductive health stated they could make a decision without being influenced. However due to the existing social and cultural barriers within the local community it is not entirely clear whether the respondents would be able to freely exercise the knowledge gained through the empowerment process.

The usage of ICT within the region is growing, but mostly limited to radio and mobile phones. Media and ICT have a relatively wide usage among the respondents in the Mara region however it is mostly limited to radio and mobile phones. Some respondents referred to the frequent usage of mobile phones for purposes connected to empowerment and information sharing, such as M-Pesa and calling friends to ask for information, the study nonetheless did not detect a link for using ICT to acquire information specifically for sexual and reproductive health purposes. One of the possible explanations could be that, as seen in the previous research, there are several challenges the media landscape in Tanzania is facing before it can acquire a predominant ICT landscape that is user friendly.

Research acknowledges that there is an increased effort coming from different levels in

Tanzania with regards to improving information access on sexual and reproductive health topics. Initiatives are coming from the local level, where young women are participating in peer-educating programmes with the aim of increasing awareness within the local communities. Schools are relying on NGO educational workshops to provide students with information while addressing the need for a reviewed curriculum on the national level. NGOs in the area are raising awareness and empowering young women to make informed decisions and changing attitudes on sexual and reproductive health amongst young people by organising field trips, workshops and cultural activites. As mentioned in the beginning of the research paper, Tanzania is one of the first East African countries that addressed the need to improve its sexual and reproductive health framework. However the findings point to a conclusion that these efforts are more often than not handled as individual rather than collective attempts to work towards a common long-term goal. A strong centralized system that allocates sufficient funds and resources for further developing sexual and reproductive health related matters is therefore required along with future research to assess the effectiveness of the changes implemented.

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Appendices

Template for the semi-structured interviews and focus group

Sociodemographic characteristics

Age	Highest form of education
Occupation	Living arrangements
Social status	Children

Ward

Information access

- Do you have access to media (TV, radio, newspapers?) What media channels do you use/watch/listen most often?
- Do you own a phone? If yes which function do yo use the most(call/sms/whatsapp/facebook/instagram/other)
- What source of information do you trust the most? (media-which, schools/teachers, parents, friends, church groups, etc)

Sexual and Reproductive Health

- How do you find information about becoming pregnant or information about preventing to become pregnant? Where do you go/ how do you go about it?
- Was the pregnancy planned?
- What type of contraceptives do you know/heard about?
- How do you find information about contraceptives? Where do you go/ how do you go about it?
- Where do you buy contraceptives?
- Where can you get information about contraceptives/STIS?
- Do you feel comfortable going there?
- Do you feel you can freely talk to your boyfriend/sexual partner about using contraceptives?
- How does he react? Give an example?
- Do you learn something in school about that? Are school places where one can get information about SRH?

- Is SRH something you discuss with your friends/peers? (give example of situations)
- How do you find information about menstruation? (Who prepares you for this topic/who would you approach if you have questions about that?)

Template for the interviews conducted with the teachers

- Could you briefly describe the curriculum related to sexual and reproductive health (eg. when do students start to learn about SRH-issues, what is the process,etc)?
- What are the main challenges for future development on sexual and reproductive health education in schools?

List of Abbreviations

CDF-Children's Dignity Forum ICT- Information and Communications Technology ICT4D- Information and Communication Technologies for Development NGO- Non Governmental Organization SRH- Sexual and Reproductive Health WHO- World Health Organization

Definition of terms relevant to this research

Term	Definition
Drug store	Retail shop that sells medicine, usually doesn't require its employees to have a medical background.
Pharmacy	Specialized medicine store where employees need to undergo a medical training.
Dispensary	Small local health facility that provides basic primary health care, usually run by a nurse.
Health Centre	Local health facility that has several practicing doctors.
Hospital	Institution that provides advanced medical treatment.
Ward	An administrative area, made up of 6-8 villages.