Article

The Male Role as “King of the Family”: Barriers to Vasectomy Uptake

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Abstract

Vasectomy is a long-acting male-centred family planning method that is accepted globally as a safe, low-cost procedure. However, the vasectomy uptake remains low in Africa and birth rates remain high, particularly in rural areas. In Tanzania, family planning education and service delivery are currently women-centred. Vasectomies to date have not been positively perceived in African societies including urban Tanzania, owing to the adherence to strong patriarchal belief systems and the social role of men. This study aimed to explore rural men’s perceptions and beliefs regarding barriers to vasectomy uptake. Significant barriers to vasectomy uptake were the lack of knowledge, expectations around men’s gendered role, religious beliefs, and social stigma. The participants were 51 purposively selected married men aged 35 to 61 years. Four focus group discussions and 20 in-depth interviews were conducted. Five main themes were extracted, namely men as the kings of their families; multiple sources of knowledge causing confusion; gender roles in family planning; cultural and religious beliefs; and stigma related to failure to produce children after vasectomy. Overall, men expressed the view that vasectomy was a challenge to their role as “king of their family”. Engaging in targeted media releases, using community billboards, and providing grassroots-based health education delivered by male “elimisha rika” (peer educators) at community level are recommended as awareness raising strategies in communities.

Keywords: vasectomy; barriers; beliefs; Tanzania; men

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Introduction and Background Information

In the global context, vasectomy provides a safe, effective and male responsibility-centred family planning option (Shelton and Jacobstein 2016; Starbird, Norton, and Marcus 2016; United Nations Department of Economic and Social Affairs 2015). In Africa, family planning has primarily focused on women, despite options for men being highly effective. In south-western Nigeria, male involvement in activities associated with family planning services is low (Akindele and Adebimpe 2016). Reasons for this low involvement include the desire to have more children, wife or partner refusal, fear of side effects, lack of awareness about contraceptives, and the belief that contraception is an issue solely for women (Kassa, Abajobir, and Gedefaw 2014; Kısa et al. 2017). In Nigeria, the low rate of acceptance of vasectomy as a male contraception method is linked to religion, misconceptions and incorrect information about vasectomies (Akpamu et al. 2010). Similarly, traditional gender roles and religious opposition remain challenges to vasectomy uptake in other communities (Dansereau et al. 2017). Generally, vasectomy is not positively perceived in African societies including Tanzania where there are strong patriarchal roles. It has previously been reported that men feel that this method jeopardises their family provider position. Determinants of barriers to male contraceptive use documented to date include men needing to show masculinity and the feeling that such activities are "women's business" because of their childrearing role (Kabagenyi et al. 2014; Knudtzon 2002; Ruminjo 1999).

The Tanzanian Ministry of Health and Social Welfare promotes the use of long-acting female-centred family planning methods, such as implants, intra-uterine contraceptive devices and bilateral tubal ligation. Among the 56 per cent of Tanzanian married women aged 15 to 49 years that used family planning, 6 per cent reported using traditional methods (for example snares, withdrawal) (Ministry of Health, Community Development, Gender, Elderly, and Children et al. 2016). Injectable contraception methods were the most popular (13%), followed by implants (7%) and oral contraceptives (6%). For men, the male condom was the most common contraception method, and less than one per cent of men had a vasectomy (Ministry of Health, Community Development, Gender, Elderly, and Children et al. 2016). In Tanzania, the use of family planning is higher in urban areas (35%) than in rural areas (31%), and more than one in five married women had an unmet need for family planning in 2016 (Ministry of Health and Social Welfare 2010).

In Tanzania, vasectomy uptake and men's involvement in reproductive health services are generally low, and men rarely seek these services despite ongoing efforts to encourage their participation (Bunce et al. 2007). However, little is known regarding contemporary rural community perceptions and cultural beliefs about vasectomy in Tanzania, and how these factors inform reproductive health service attendance. The pressing social expectations in Tanzania for men's involvement in reproductive health services, earning an income and making all the important decisions for their family's

future highlight the importance of discussing family planning with men (Anguzu et al. 2014; Kabagenyi et al. 2014).

Increasing the vasectomy uptake by men of advanced age and who are satisfied with the number of children they have is globally accepted as a potential measure for improving the health of women and their families. Several strategies for engaging men in improving the health of women and their families and reducing high maternal and newborn mortality rates are underway in Tanzania (Ministry of Health, Community Development, Gender, Elderly, and Children et al. 2016). Vasectomy would complement the dominant women-based family planning methods in Tanzania, thereby increasing the prevalence of contraception use. Men's increased attendance at health facilities for vasectomy may also provide an opportunity for screening for other health problems.

The data reported in this study consist of phase one of a larger study involving multiple stakeholders that is concurrently being published with the initial publication about women's views published in the *International Journal of Africa Nursing Sciences* (Msoka et al. 2019). The larger study included focus group discussions (FGDs) and in-depth interviews (IDIs) with 40 married women, 36 healthcare providers and 51 men (the present study). Key emergent themes from the analytical triangulation of stakeholder data were a widespread lack of education, confusion and uncertainty about who was responsible for the decision-making in family planning, stigma and shame related to vasectomy, and cultural and religious barriers as challenges to vasectomy uptake. The objective of the present study was to explore the largest stakeholder group, i.e. men's perceptions and cultural beliefs about the barriers to vasectomy uptake in Pwani, Tanzania.

Statement of the Research Problem

Vasectomy is a long-acting male-centred family planning method that is accepted globally as a safe, low-cost procedure. However, the vasectomy uptake remains low in Africa and birth rates remain high, particularly in rural areas. In Tanzania, family planning education and service delivery are currently women-centred. This study aimed to explore rural men's perceptions and beliefs regarding barriers to vasectomy uptake in Pwani, Tanzania.

Study Purpose, Objectives, Assumptions, Research Questions

The purpose of this study was to explore the perceptions, beliefs and barriers to vasectomy as a modern method of family planning in the Pwani community. The specific objectives were:

- to investigate men’s beliefs on barriers to use vasectomy as a modern family planning method;
- to investigate men’s perception on barriers to use vasectomy as a modern family planning method; and
- to propose nursing recommendations for reproductive health promotion and uptake of vasectomy services.

Research Methodology

This qualitative descriptive study included four FGDs and 20 IDIs, along with data drawn from field notes recorded during the study period (Creswell 2007). The practice of vasectomy in Tanzania is under-researched, and detailed information regarding vasectomy is unavailable. Therefore, two methods of data collection (FGDs and IDIs) were used to facilitate the extraction of detailed information regarding beliefs and perceptions from diverse individuals. It was anticipated that the data from each method would complement the other.

Setting

The Pwani region has a rapidly growing population and is considered a priority area for government interventions that promote family planning. Four sites were selected for this study: Bagamoyo, Chalinze, Kisarawe and Masaki. The Bagamoyo District Council has one district hospital, four government health centres and one missionary health centre. The district also has 59 dispensaries and four clinics. The Kisarawe District has over 24 health facilities, including one district hospital, three health centres and 20 dispensaries. District hospitals and health centres in the four sites were purposively selected for sample recruitment because they have populations with greater health literacy than other districts (Ministry of Health, Community Development, Gender, Elderly, and Children et al. 2016), and are remote or rural locations.

Study Sample and Recruitment

Purposive sampling was used to identify potential participants for this study to ensure that rich data were obtained. After ethics approval, health facility and community leaders were informed about the study and requested to help in identifying prospective male participants from their community. The selection criteria were married men aged 35 to 61 years who had not undergone a vasectomy. This age range was chosen as it is the primary age group in which the majority of men had already fathered a number of children. Two men withdrew from this study because they needed to attend to family matters and three withdrew without giving a reason. Participant recruitment was conducted by a research officer, who provided a detailed explanation about the study, and reached agreement with the participants about convenient days and times for the FGDs and IDIs.

Inclusive and Exclusive Criteria

All participants who met the selection criteria, i.e. married men aged 35–61 years who had not undergone a vasectomy, indicated a willingness to be involved and had received information regarding the study were purposively selected. Those aged less than 35 years were excluded from the study.

Interview Guide

A semi-structured interview guide was developed based on a review of the literature. The guide was written in Kiswahili and included open-ended prompts that focused on the nature and sources of knowledge and men's perceptions and beliefs about vasectomies. The questions covered the participants' understanding of family planning and vasectomy, involvement in attending clinics with their partner, source of information about family planning, understanding and beliefs about vasectomy, views on vasectomy service education, opinions regarding vasectomy, and responsibilities regarding family planning as married men. The interview guide was piloted with eight participants who met the study inclusion criteria. Minor modifications were made following the feedback obtained.

Data Collection

Data were collected between September 2017 and February 2018. The research procedure followed the consolidated criteria for reporting qualitative research (Creswell 2007). A bilingual research officer (male nurse experienced in moderation) conducted the FGDs and IDIs. Each FGD had 5 to 10 participants (Krueger and Casey 2014; Tong, Sainsbury, and Craig 2007). The FGDs lasted about 90 minutes and the IDIs about 40 minutes. All interviews and discussions were held in a private room in the associated village health facility. The research officer had no prior knowledge of the participants.

Data Analysis and Rigour

All FGDs and IDIs were conducted in Kiswahili, which is a national language in Tanzania, and spoken by all the participants. This unified approached enabled conceptual clarity. Audio recordings of the interviews and discussions were transcribed verbatim into Kiswahili by the research officers, and then translated into English by a bilingual linguist. All transcripts were back-translated into Kiswahili to minimise the loss of meaning during translation. Thereafter, two researchers who were fluent in both languages checked the transcripts against the audio recordings. NVivo version 11 was used for the data analysis. The analytical framework described by Braun and Clarke guided this process (Braun and Clarke 2006, 2013). The analysis involved focused rereading and review of the data, followed by coding and category construction based on data characteristics to uncover themes pertinent to the phenomenon under study. The data were analysed concurrently by two members of the research team to ascertain credibility; thereafter, identified themes were combined and compared (Smithson 2000).

Ethical Considerations

Ethical approval was obtained from the Ethics Review Committee of the Aga Khan University (Ref. AKU/2017/238/jl). Permission to conduct this study was subsequently granted by the two district municipal councils involved, and the relevant health facility management and village officers. The participants were informed about the aim of the study, their right of voluntary participation and that they could withdraw at any time during the process. The participants were also given time to ask questions, share concerns and suggest a convenient venue. Written informed consent for participation and recording of interviews and discussions was obtained from all the participants before the study started.

Findings

Sociodemographic Characteristics

Most participants had lived in their respective communities for their entire lives. Most participating men were Muslim (n = 39), had between two and seven children, and had completed primary school education only. The majority of the participants were farmers. Other occupations included street sellers of groundnuts, drinking water and juice.

Table 1: Participants' sociodemographic characteristics

Study setting	Men	Number of children	Religion		Level of education		Occupation	
			Muslim	Christian	Primary	Secondary	Farmer	Others
Rural*	25	2–6	21	8	17	6	35	2
Semi-rural**	26	2–7	18	4	22	6	7	7
Total	**51**		**39**	**12**	**39**	**12**	**42**	**9**

* Chalinze and Masaki
** Bagamoyo and Kisarawe

Themes and Sub-themes

The main emergent themes and sub-themes are shown in Table 2.

Table 2: Themes and sub-themes regarding men's perspectives of vasectomy

Themes	Sub-themes
Men as the kings of their families	Men's important ability to sexually satisfy their wives Men's role in making money
Multiple sources of information, yet still confused	Information from various sources Incorrect information about vasectomy
Gender roles in family planning	Family planning is for women only
Cultural and religious beliefs	Against God's will, better to use traditional contraception practices (snares, strings and knots) Vasectomies or "kuhasiwa" (castration) make you impotent
Stigma from failure to produce children after vasectomy	More than one wife Divorce Death of a wife

Men as Kings of their Families

Men as kings of their families reflected contexts in which the man controlled all activities related to the family and made all the household decisions. One participant compared the head of the house or "ruler" to a leader of an army who has to bear all attributes related to being fit to be the head of the house or family (king), as well as making money for the family. Being sexually active was perceived as one of a man's main attributes.

> Men are the kings of their families, if the king will be arrested it is dangerous. This means if the man has a vasectomy and is not able to perform during sexual intercourse, it will be dangerous as he will not be able to satisfy the needs of his wife, and other men might take over; the respect of men lies in his ability to satisfy a woman; 'mwanaume' machine –meaning a sexually active man is a machine with an engine; when the 'engine' [penis] stops working, there will be no sexual act. (FGD 3, Village 2)

Having a vasectomy was viewed as an attack on male virility, and seen to take away a man's ability to lead his family.

> Now we, the men, are king, so when a king or a soldier is attacked it means the army is destroyed. (FGD 1, Village 2)

Having a vasectomy clearly posed a challenge to a man's sexuality.

> When women practice it [contraception] she will never lose the feeling of having sex. I know that my wife is implanted [with] Norplant, but still she has a feeling of having sex

> and is not able to conceive, so myself, what I feel like a man when I cut off my tubes it means I will not have a feeling of sex. (FGD R 3, Village 2)

> To practice vasectomy it may harm us or weaken our power completely, to accept something like that it becomes difficult because everyone needs to have power to be able to work as usual; if I take family planning pills what will happen? It may harm me. If there will be provision of education that explains how it works and [that] it does not disturb, we will follow up. (FGD R 3, Village 2)

Men were regarded as the primary “moneymakers” for their families, as described by a participant from Village 1:

> It is a traditional thing, men have the concept that family planning is for women and men are for money making, this is very an ideological issue. All men think like that. (IDI)

Similarly, other men expressed concerns about the potential loss of work and respect following a vasectomy.

> To practice vasectomy, it may harm us or weaken our power completely; to accept something like that it becomes difficult because everyone needs to have power to be able to work as usual. (FGD R 3, Village 2)

Multiple Sources of Information, Yet Still Confused

Most men knew of the available female family planning options. However, many participants reported they had little knowledge of vasectomy procedures and services, with the information they did have coming from various sources.

> We have seen so many times the family planning is advertised on television, hospital and even on billboards. Family planning is an arrangement on how to deliver your children; that is family planning. Personally, this is how I understood it. Because we have seen it is written on the billboard. (FGD 1, Village 3)

Sources of information on family planning also included mobile phone messages.

> Tigo have just sent to me the message on vasectomies, and through local news on TBC television and in any discussion from television or radio. (FGD R 2, Village 3)

Participants reported that they were more likely to take note of information provided by television than by healthcare providers.

> Therefore, information we get is from watching television through ITV and watching programmes about family planning, which says that we should get babies in a sequence order, and also from radio where there is different topics about family planning. (FGD R 3, Village 1)

One participant reported receiving some information about vasectomy services when escorting his wife to the reproductive and child health clinic:

> I am very good escorting my wife in attending the clinic service, I remember one day the nurse mentioned this issue of vasectomy but I ignored it, she said you must reach certain years of age or if there is a health problem that leads you to practice vasectomy, but I was not paying attention to her. (IDI, Village 1)

Another participant said,

> The doctor promised that they would call me and took my number, but surprisingly I have never received any call from them until today. I received messages about family planning through my phone and television. (FGD R 2, Village 4)

There was inappropriate information available about the procedure and outcome of vasectomies. The participants perceived this to be a result of the lack of accurate and complete information on family planning.

> According to what I know, because education provided to me is not clear, I will not be ready for that because of the morphology. God has created us differently. That is why a large number of men are not ready to practice vasectomy, many of them are not getting enough education, it is possible if you cut the tubes will result in a problem, so when I say cutting off the tubes it means maybe you will not function again as a normal person; from there, it is where there is a worry to men. [All participants laughed.] So when you say you will be ready and yet not receiving any education, I think it will not be acceptable. (FGD 3, Village 2)

Access to reliable and comprehensive vasectomy education was seen by participants as a means of promoting the uptake of vasectomy services. Negative perceptions could be redressed with the provision of correct health information.

> I think what should be done is to educate all men; for instance, on the issue of cutting the testicle tubes [men] should get full education on how they cut the tubes and what will be the consequences; if you cannot tell us about the consequences no one will say yes to that [all participants laughed] ... Just telling us that you will perform your duties as usual but you will not be able to impregnate a woman; this is not enough. If you want to cut someone's tubes without giving him full information it will be so hard. (FGD 4, Village 4)

Another participant described his concerns about future production after a vasectomy.

> Because I don't understand the advantages of the practice of vasectomy, when you cut off the testicle tubes, what will be the result of it. However, what if later on I want to have a baby, it will be impossible because I have already cut off my testicle tubes. (FGD 1, Village 3)

Gender Roles in Family Planning

Women were seen to have sole responsibility for their family's health, with the inference that they were expected to look after the household's family planning needs. However, men saw their own role as encouraging their wives' health clinic attendance, and sometimes escorting them to the clinic.

> Eh, the roles of men are first to encourage his wife to attend the clinic and participate in family planning programmes. And I, as a man, my wife could have given me advice now we have to practice family planning, I could maybe listen to her advice and follow her ideas. (IDI, Village 4)

Another participant described the importance of ensuring his wife was participating in family planning as follows:

> The role of men that I know is the one that first of all to take care of your wife and make sure that she is participating fully in the clinic, and second to look at the disadvantages of the [family planning] method that she uses because sometimes she may go to the family planning and given pills or Norplant that brings some effects to her, so it is your responsibility to know what she is using and if it meets the goal of family planning. (IDI, Village 1)

One participant shared his experience of escorting his wife to the reproductive and child health clinic:

> I used to attend clinic not one time or two times with my wife. My wife and I, we were given these methods of family planning after we were having so many unplanned pregnancies and some of the babies were dying. The doctors gave us some advice that we should use family planning, because you can find one baby has not yet reached the age of getting his or her young sister or brother, and the elder one becomes weak; a better way is to use family planning. (FGD R 7, Village 3)

Another participant commented:

> The big challenge is that many men in the community believe that the family planning is for women and not men, and some when you want to practice family planning will tell you that you are going against God's plan. (IDI, Village 2)

In contrast, another participant explained why men did not attend clinics:

> Many men don't attend clinic with their wives because they think that family planning is for women not men. (FGD R 3, Village 2)

Current health education was reported to focus on the services needed during pregnancy and childbirth:

> Seminars are introduced due to the recent situation that if your wife is pregnant she should come with her partner in the clinic, so the education is mainly provided to the couple. (FGD R 2, Village 1)

Involving men in family planning was also reported to be important:

> When education is provided, men will be willing to participate in any of the methods on family planning, but also it is good to guarantee men that the method that will be used is safe. So when you guarantee men about the safety of the method I don't think it will be a problem, because this practice for the decent person who reasons well it will be something good for them. (FGD R 3, Village 3)

Cultural and Religious Beliefs

A powerful barrier to vasectomy practice reported by participants was that it was against God's will. The participants also referred to the use of traditional African contraception methods. These methods included snares, herbs and knots tied around a woman's belly. There were also cultural concerns related to the loss of male power from a vasectomy. In addition, there was a predominant cultural belief that "kuhasiwa" (castration) meant men were impotent following a vasectomy. Some participants shared descriptions of traditional contraception (snares, strings and knots). One participant said:

> I have witnessed traditional methods; after the baby is born there is a medicine that the mother gets a shower with and then there is a medicine that a baby is given, the medicine is put on his or her waist and his or her mother. When the string is unknotted, she gets pregnant, but when string is still there the husband and wife have sex with no possibility of getting pregnant … (FGD R 1, Village 3)

For Islamic men, the importance of having more than one wife was discussed. Men wanted more children to care for them in their in old age and were expected to have extra wives, as each wife would give birth in her reproductive periods:

> There is today and tomorrow; for example, our Islamic religion allows us to marry up to four wives. Each wife will prefer to get pregnant in her own planned time. (IDI, Village 1)

There were numerous concerns about being rendered impotent by perceptions of "kuhasiwa" (castration) occurring after a vasectomy:

> [For] A man to undergo vasectomy is a challenge because most of the men think that if you are practicing vasectomy you will become impotent—kuhasiwa—it means you will not be able to get children and you will not have respect in society, when people know that Mr so-and-so has practiced vasectomy he will be ignored … (FGD 3, Village 1)

Stigma Related to Failure to Produce Children after a Vasectomy

The participants reported community-based stigmatising barriers to vasectomy. Concerns about a wife dying or getting a divorce were perceived as potential barriers to vasectomy uptake:

> In such a situation of my wife dying I will be stigmatised. Finally it will be possible only if proper education is provided in rural and urban areas. (IDI, Village 3)

Some participants also said they may need to have another child in the case of the death of a wife or divorce:

> Also, as we all know, marriage life is a contract, and it is not something you do for the rest of your life and say that only God can separate you but it might happen that one of you caused the marriage to break up, so when you are divorced from each other and you want to be married again and you need to have a child, what will happen if you want to conceive? Will you be able to open up the tubes again and have a child? (FGD R 6, Village 2)

In contrast, other participants stated that with a vasectomy, they would have a certain amount of freedom and could no longer be blamed for causing a pregnancy:

> Mm! I like that; I will have sex without being blamed, and where I may be asked to care for a pregnancy and the baby, I will show them hospital form that confirms vasectomy operation. I will not hesitate to go for the DNA test. (IDI, Village 2)

Discussion of Research Results

This qualitative descriptive study explored the perceptions, beliefs and barriers regarding vasectomy as a modern method of family planning in the Pwani community and sought to propose reproductive health nursing recommendations for the health promotion and uptake of vasectomy services. The participating men reported a widespread lack of understanding about the vasectomy procedure and available services. This lack of knowledge was exacerbated by cultural perceptions that a vasectomy or "cutting off of men's organs" would diminish men's power and virility. Local beliefs in male power and challenges to virility meant that these men saw vasectomies as de-masculinisation, couched in terms of castration. Cultural beliefs that vasectomies were "kuhasiwa" (castration), thereby making men impotent, were salient features of the interviews. These were coupled with community stigma related to not producing children and expectations of family planning being a woman's role. Religious beliefs and the need for extra wives and children constituted further barriers to vasectomy uptake.

The objective of examining the cultural beliefs around having a vasectomy was voiced as being seen to decrease men's role in society as a "king" of their families and "kings"

in the community and to make men sexually powerless, which reinforced the primacy of male decision-making in marriage. Negative perceptions regarding vasectomy included the use of wording such as "cutting the testicle tubes" and "not being able to perform your duties as usual". These beliefs were partially fuelled by inadequate health information regarding vasectomy services. These results are similar to other studies conducted in high- and low-income countries. Drawing on a cross-cultural comparison, a Mexican study (Dansereau et al. 2017) found that participants with limited education showed the most negative attitudes to vasectomy. This was consistent with a rural Indian study (Fereday and Muir-Cochrane 2006), also in a low-resource setting, which found that men did not use vasectomy services because of male cultural beliefs, incorrect information and inappropriate approaches by healthcare workers. In terms of cultural barriers, men in this study claimed that their morphology ("God has created us differently") meant they were not ready to practice vasectomy. They feared that cutting off their "testicle tubes" would result in problems.

Confusing information and a lack of knowledge about vasectomy were predominant perceptions, linked to the second objective in the present findings. For example, the participants were concerned about a diminished sex drive following a vasectomy. This was consistent with results highlighted in other low-resource African countries (Akpamu et al. 2010; Kabagenyi et al. 2014; Scott, Alam, and Raman 2011; Temach, Fekadu, and Achamyeleh 2017). In a Nigerian study, men viewed vasectomies as a form of castration that could reduce their capacity for fatherhood and associated power, and would therefore never recommend the procedure (Akpamu et al. 2010). Studies in Uganda (Starbird, Norton, and Marcus 2016) and Ethiopia (Kabagenyi et al. 2014) found that incorrect information resulted in a lack of knowledge about vasectomy, with the majority of men being afraid that a vasectomy would lead to impotence and being stigmatised by their communities. These concerns arose from misconceptions and played a significant role in men's decisions to not have a vasectomy, and that men did not know whether a vasectomy was a safe procedure (Akpamu et al. 2010).

Most available education from reproductive health service providers focused solely on women and childbirth. Our results revealed that many men thought that family planning was for women, and not for men. A recent study in Mexico found that while family planning was becoming more accepted in general, traditional gender roles, taboos and religious opposition remained challenges in some communities (Dansereau et al. 2017). It was clear that those men saw family planning as central to the women's role, which in turn prohibited them from involvement in family choices about fertility while limiting their access to the family planning services targeted at them (Dansereau et al. 2017).

Most participating men in the present study reported that there was no proper way of obtaining knowledge about family planning from health providers. The few men who escorted their wives to reproductive and child health clinics shared negative experiences regarding these services. Furthermore, some men who escorted their wives to these clinics could not understand what was being explained. This is consistent with a

previous study in Tanzania in which more than 25 per cent of vasectomy clients reported unavailability of health education regarding vasectomy services, lack of assurance about the procedure, insufficient sources of information and lack of availability of health providers (Bunce et al. 2007).

The present findings revealed that the participating men from the Pwani region in Tanzania predominately gained family planning information from television and hospital billboards. A previous study in Tanzania reported that some service providers were not using standardised criteria for health education and counselling for men eligible for vasectomies, despite service providers being trained on vasectomy provision (Bunce et al. 2007). A study in Nigeria reported that only 5.8 per cent of doctors discussed vasectomies during counselling sessions (Akpamu et al. 2010). Similar to our findings, studies from India indicated that 50 per cent of men could not access family planning information directly from healthcare providers, and obtained information from friends or relatives, 28.5 per cent obtained information from the media and only 19 per cent from their healthcare providers (Fereday and Muir-Cochrane 2006; Muanda et al. 2016).

Many of the men in this study highlighted that vasectomies posed a cultural barrier to the importance of having more children in the case of the death of their wife or a divorce. Religion that allows men to have multiple wives was another powerful barrier to vasectomy uptake (Saoji et al. 2013). Another study in Tanzania involving the Seventh-day Adventist Church advocates for contraception emphasised that people should have fewer children so that they could better care for them through sound healthcare and education (Bunce et al. 2007). Interestingly, the few men in that study who had undergone vasectomies often did so secretly, and were rarely willing to speak out in support of the practice (Bunce et al. 2007).

Recommendations

These findings inform current complex cultural, gendered and community-based barriers to vasectomy uptake. A key finding was related to challenges to men's role as king of their family, with many men believing that a vasectomy would jeopardise their position as family provider. Most barriers that relate to engendered cultural and religious beliefs could be eliminated or reduced if men were consistently encouraged to take an active role in their family's reproductive health. To achieve this, clear and robust community-based nursing education about vasectomies and benefits to the family (for example improved finances, health and educational prospects) needs to be provided and aligned across different sectors to promote motivational factors. Culturally sensitive behavioural change approaches led by rural reproductive health nurses together with timely communication strategies for men should also be implemented to generate a demand for vasectomy services.

It is important that reproductive health services, in particular nurses, integrate opportunistic vasectomy practice with other health services, such as clinic visits, screening and men who accompany their wives to health services, to further promote vasectomy uptake. Nurses have a key role in advocating for intersectoral support; for example, engaging church and community leaders in these interventions. Nurses who work in conjunction with Islamic leaders and those from the main Christian churches (for example Seventh-day Adventist and Catholic churches) have a crucial key role in providing structured and evidence-based health education that adapts religious doctrines to align with available health services. Recruiting locally respected and authoritative men to act as ambassadors for change to challenge myths and promote vasectomy services is of paramount importance. This could be done successfully by putting more emphasis on the billboards which was shared in the FGD and including the IDIs. A further recommendation by the focus groups was the use of media sessions to promote vasectomy knowledge and uptake. We further recommend mobilising existing "elimisha rika" (peer educators), who are respected members of their communities. Funding and policies targeted to promote improved health literacy in rural African communities are also needed to position vasectomies as a highly viable contraceptive option.

Limitations of the Study

The strengths of this study included the use of more than one data collection approach; participants who were not able to express their views in the FGDs could share their opinions in an IDI. The use of IDIs and FGDs was also a way of further validating the information obtained from the participants. Field notes taken during data collection enabled a clear pattern of the context to be observed. The research team also shared ideas regarding the field data. This continuous reflection on the data and resulting discussions increased the reality of the findings. A key limitation was that the use of FGDs and resultant group norms tended to silence individual voices of dissent. In addition, the use of FGDs had the potential to compromise group members' confidentiality, which is a key ethical issue in social research. The transferability of the present study results is limited to other context-based rural low-resource settings only. However, detailed descriptions of the study context, the participants and the presentation of participant quotes allowed rich description and offer the potential to adapt these results to other contexts.

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