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Improving provision of family planning among pastoralists in Kenya: Perspectives from health care providers, community and religious leaders

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ABSTRACT

There exist significant inequities in access to family planning (FP) in Kenya, particularly for nomadic and semi-nomadic pastoralists. Health care providers (HCP), are key in delivering FP services. Community leaders and religious leaders are also key influencers in women's decisions to use FP. We found limited research exploring the perspectives of both HCPs and these local leaders in this context. We conducted semi-structured interviews with HCPs ($n=4$) working in facilities in Wajir and Mandera, and community leaders ($n=4$) and religious leaders ($n=4$) from the nomadic and semi-nomadic populations the facilities serve. We conducted deductive and inductive thematic analysis. Three overarching themes emerged: perception of FP as a health priority, explanations for low FP use, and recommendations to improve access. Four overlapping sub-themes explained low FP use: desire for large families, tension in FP decision-making, religion and culture, and fears about FP. Providers were from different socio-demographic backgrounds to the communities they served, who faced structural marginalisation from health and other services. Programmes to improve FP access should be delivered alongside interventions targeting the immediate health concerns of pastoralist communities, incorporating structural changes. HCPs that are aware of religious and cultural reasons for non-use, play a key role in improving access.

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Nomadic and semi nomadic pastoralist; family planning; health provider; religious and community leader

Introduction

The national modern contraceptive prevalence rate (mCPR) is 61% in Kenya. Despite a high national prevalence, regional and social inequities exist (FP2020, 2019). Wajir and Mandera counties in North-Eastern Kenya include predominantly nomadic and semi-nomadic pastoralist populations, and absolute poverty levels are estimated to be between 85% and 89% (MoALF, 2017, MoALF, 2017). In these counties, the total fertility rates range from 5.2 to 7.8 and the mCPR is less than 3% (AFIDEP, 2017, AFIDEP, 2017). This suggests potentially large gaps in demand for, and access to, modern family planning (FP) methods.

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Existing research on access to sexual and reproductive health services in Sub-Saharan Africa suggests there exist key obstacles to accessing FP services. In rural areas, specifically, these obstacles include gender inequalities, low levels of education, distance to health facilities, transportation, challenges with recruitment and retention of health care providers (HCP), and negative perceptions of HCPs (Essendi et al., 2015, Ngugi et al., 2017, Kabia et al., 2019). Religious beliefs, fears about side effects, and partner opposition have also been cited as reasons for low access and uptake of modern FP (Bekele et al., 2014, Chebet et al., 2015, Sedgh and Hussain, 2014), alongside the limited availability of a range of FP methods (Tessema et al., 2016). Many of these barriers to accessing health care intersect amongst hard-to-reach and marginalised groups in Kenya, but there is limited evidence for how best to efficiently and sustainably provide essential health care (including FP) to pastoralist communities (Ali et al., 2019). There is a need for health services, providers, and programmes to consider the specific needs of marginalised communities, including structural injustices (McCollum et al., 2018, Bhatkal et al., 2016).

In Wajir and Mandera, coverage of crucial maternal and child health and FP interventions is low. These counties have a particularly low health worker and health facility density, and the average distance to a health facility is 50km, compared with the national average of 3km (Keats et al., 2018, Mugo et al., 2018). In both counties, pastoralist populations receive information about health services, birth spacing and FP from health workers (including nurses, midwives, community health workers, clinical officers, doctors, and pharmacists), community leaders and religious leaders. HCPs in particular provide information on different forms of FP, including (but not limited to): oral contraceptives, intrauterine devices (IUD), condoms, lactational amenorrhoea, and safe days. While lactational amenorrhoea is considered a modern method of FP (Croft et al., 2018), this is not included in the definition for this paper, to reflect participants' interpretation of the term 'modern FP'.

In similar contexts where healthcare access is limited, HCPs working in local health centres are often the most reliable source of information on FP and sexual and reproductive health issues. The ability to discuss reproductive health concerns with HCPs is positively associated with accessing services (Dougherty et al., 2018). HCPs can both enable or hinder the uptake of FP services in several ways. Firstly, HCPs play a key role in delivering information, including on the side effects of modern FP (Chebet et al., 2015). Where this information is not provided by HCPs, information may instead come from rumours and misinformation (Msoka et al., 2019, Ndayizigiye et al., 2017). Secondly, the range of attitudes they display can either create a supportive environment or hinder the uptake and continued use of FP (Schwarz et al., 2019, Hyttel et al., 2012). Thirdly, bias, or the implicit stereotypes and judgements that HCPs hold against certain population groups are important when considering their role in providing FP advice (FitzGerald and Samia, 2017). Studies from Tanzania and Nigeria document how provider-bias regarding contraceptives and the socio-demographics of women (e.g. age and marital status) can affect the types of contraception provided (Solo and Festin, 2019, Dynes et al., 2018). Finally, the characteristics of providers, such as their sex, age, religion, and skills and training they have received are important (Starling et al., 2017). In Senegal, male providers were more likely than females to restrict access to FP on the basis of age (Sidze et al., 2014), while in Burundi, Christian providers refused contraceptive services to women, referencing religion (Ndayizigiye et al., 2017). Older staff, who hold more traditional views around fertility, may also be less likely to provide modern FP (Hamid and Stephenson, 2006). In areas of North-Eastern Kenya, the sex of providers impacts women's decision to access reproductive health services (N'Gbichi et al., 2019).

Community and religious leaders also affect the social acceptability of FP, especially in nomadic settings, where they are often considered the custodians of culture and tradition (Parsitau, 2017). Engaging religious leaders of different faiths in FP interventions can increase its use amongst women (Adedini et al., 2018) and women's participation in religious groups has been associated with increased use and acceptance (Agadjanian, 2013). Studies in Kenya, as well as elsewhere, have shown that local leaders who value FP for community health can act as role models, increasing its acceptability (Adedini et al., 2018, Steven et al., 2019).

Existing literature highlights inequities in access to FP in Kenya and the important role that HCPs (who serve nomadic and semi-nomadic populations) and local leaders (religious and community leaders) play in providing access and information around sexual and reproductive health services in nomadic settings (Ali et al., 2019). However, no research has explored and compared the role and perspectives of providers and local leaders in supporting or limiting access to modern FP in North Eastern Kenya. We examine – and compare – the perspectives of HCPs, community leaders – including traditional birth attendants – and religious leaders living and working in Mandera and Wajir, on the individual, interpersonal and structural barriers and facilitators to accessing FP.

Methods

Study sites and sampling

The study was conducted in Wajir and Mandera counties in North East Kenya. The population is largely made up of nomadic and semi-nomadic pastoralists, who practice seasonal migration and move as a result of frequent inter-communal conflict and periods of food insecurity following protracted drought (Abebe et al., 2016, Scharrer, 2018). The population is ethnically Somali and predominantly of Muslim faith.

Data for this paper come from a larger qualitative study with 203 individuals who participated in either an interview or focus group, which explored social norms, fertility preferences and modern FP amongst nomadic and semi-nomadic pastoralist girls, boys, women and men. More information about methodology and additional findings from the overall study can be found elsewhere (Lowe et al., 2021, Hossain et al., 2018). This paper focuses on interviews with HCPs working in health centres located in Wajir and Mandera ($n=4$), community leaders ($n=4$), and religious leaders ($n=4$) from the pastoralist communities that the health centres serve.

Two health centres were purposively chosen in collaboration with the Ministry of Health. They were selected from the limited government-owned and operational health centres located close to the nomadic and semi-nomadic community study sites. In Wajir, the facility selected was one of two hospitals in the sub-county providing secondary health care services including FP, prevention of mother-to-child transmission, and emergency obstetric and newborn care (EmONC). In Mandera, the facility was one of four health centres in the sub-county and the only one that carried out nomadic outreach activities. All health providers working at the time of data collection (approximately 2–3 per centre) were invited to be interviewed.

The study team initially met with male community leaders served by the health centres we identified in each site to seek approval for data collection. These male community leaders were then invited to participate and as gatekeepers to the community, helped identify the religious leaders and female community leaders who were invited to interview.

Study participants & context

Our sample included 12 participants: four HCPs ($n=4$; 1 female and 3), four religious leaders (all male) and four community leaders (2 female, 2 male). Three participants were in Wajir County and nine in Mandera County. Three participants were Christian and nine were Muslim. [Table 1](#) provides the demographic characteristics of participants.

HCPs were aged 25–34 years, three out of four were Christian, and three were married with one or two children. Although the providers worked in Wajir or Mandera, none were from these counties, nor did they belong to semi-nomadic or nomadic communities. Two had been working in their current role for less than one year. Their role was to provide primary health care to nomadic and semi-nomadic pastoralist communities and settled populations.

Community leaders were from nomadic or semi-nomadic communities that had been settled for different amounts of time. They were 25–74 years of age and were all married. Female community

Table 1. Characteristics of Participants (n=12).

	Gender	Location (county)	Age (years)	Married	Age Married (years)	Number of Children	Religion
Health Care Providers (N=4)							
<i>Health Provider 1</i>	Male	Mandera	26–35	Yes	26–35	1–2	Christian
<i>Health Provider 2</i>	Female	Wajir	26–35	No	NA	None	Muslim
<i>Health Provider 3</i>	Male	Wajir	26–35	Yes	26–35	1–2	Christian
<i>Health Provider 4</i>	Male	Wajir	26–35	Yes	26–35	1–2	Christian
Community Leader (N=4)							
<i>Community Leader 1</i>	Male	Wajir	66–75	Yes	18–25	21+	Muslim
<i>Community Leader 2</i>	Male	Wajir	46–55	Yes	<i>Missing data</i>	18–20	Muslim
<i>Community Leader 3</i>	Female	Wajir	46–55	Yes	< 18	9–11	Muslim
<i>Community Leader 4</i>	Female	Wajir	26–35	Yes	< 18	9–11	Muslim
Religious Leader (N=4)							
<i>Religious Leader 1</i>	Male	Mandera	46–55	Yes	18–25	12–14	Muslim
<i>Religious Leader 2</i>	Male	Mandera	26–35	Yes	26–35	1–2	Muslim
<i>Religious Leader 3</i>	Male	Wajir	46–55	Yes	26–35	6–8	Muslim
<i>Religious Leader 4</i>	Male	Wajir	26–35	Yes	18–25	3–5	Muslim

leaders were all Traditional Birth Attendants, married, with 11–15 children. Male community leaders had 20–23 children with multiple wives. All community leaders interviewed had been in their roles for 5–40 years. Female community leader roles included assisting community members with advice and decision-making. Male community leaders were in charge of livestock (cattle, goats), community grazing land, and Qur'anic Schools.

Our sample of male religious leaders were 30–50 years old, were first married between age 19 and 30 years, and had up to 13 children (older males had more children). They had been in their roles for 1–25 years. They said their main role was to deliver Islamic lectures, guide individuals based on religious practices, and provide spiritual healing.

Study design and data collection

We conducted semi-structured interviews with all 12 participants in November 2018. We developed interview guides for HCPs, community leaders, and religious leaders, which included the following topics for all participants: typical pastoralist family size, attitudes towards modern FP, and nomadic health priorities. Vignettes describing typical scenarios related to FP decision-making were included, to explore HCP norms and how they reacted to delivering FP to nomadic women (see Table 2) (Cislaghi and Heise, 2017). HCPs were invited to describe their experiences and any possible challenges of delivering services to pastoralist communities, with a focus on reproductive health. Local leaders were asked to describe their role in communities and in relation to community concerns around sexual and reproductive health issues. Participants provided demographic information at the time of interview.

Authors LK and RH coordinated data collection. Interviewers were recruited in Nairobi but originally from Wajir or Mandera counties and were fluent in the local languages (Borana and Somali) and English. They received a one-week training in ethics and qualitative research methods. All interviewers participated in pilot testing and revising the interview guides. Interviews with HCPs

Table 2. Vignette to explore health care provider norms.

Example vignette	Sample of follow-up questions
<i>I would like to tell a story that takes place in a health centre exactly like yours. Fatuma is a typical 25-year-old woman from a nomadic community in the region and she recently visited the health centre for family planning methods. Hawa, the health care worker, provided her with a long-acting method. Another doctor in the health centre saw Fatuma and overheard Hawa providing family planning to her. After he sees Fatuma leave the clinic, the doctor went to Hawa and asked if this was true.</i>	<ol style="list-style-type: none"> 1. Do you think that Hawa will tell the truth? Why, why not? 2. If Hawa tells the truth, will her colleagues support her? Who? 3. Do you think it would be different if Fatuma was from a different, non-nomadic population?

were conducted in English. Local leaders chose their preferred language. Interviews were conducted in a private room at the health centres. Consent to participate, and for the interview to be audio recorded, was obtained orally before each interview. The study team met daily during data collection to document the context of each interview, key themes, and any challenges. Interviews were later transcribed and translated into English (for the interviews conducted in Somali and Borana) by four experienced transcribers based in Nairobi. Transcripts were randomly selected and quality checked by RH, who is fluent in all three languages.

Data analysis

Interviews were analysed using both deductive and inductive thematic analysis, in NVivo 12 (Braun and Clarke, 2006). The initial codebook was created deductively, based on our conceptual framework and notes from daily debriefs. Our research framework (developed by MH) was underpinned by a dynamic ecological framework (Hossain et al., 2018, Cislaghi and Heise, 2018). It recognised how social and gender norms intersect at the individual, social, material, institutional and global level to influence: family formation, family structure (e.g. family size) and FP methods, in turn influencing FP use. As part of this, we identified key reference groups, including women of reproductive age (Bhatkal et al., 2016; Keats et al., 2018; Mugo et al., 2018; Croft et al., 2018; Dougherty et al., 2018; Msoka et al., 2019; Ndayizigiye et al., 2017; Schwarz et al., 2019; Hyttel et al., 2012; FitzGerald and Samia, 2017; Solo and Festin, 2019; Dynes et al., 2018; Starling et al., 2017; Sidze et al., 2014; Hamid and Stephenson, 2006; N’Gbichi et al., 2019; Parsitau, 2017; Adedini et al., 2018; Agadjanian, 2013; Steven et al., 2019; Ali et al., 2019; Abebe et al., 2016; Scharrer, 2018; Lowe et al., 2021; Hossain et al., 2018; Cislaghi and Heise, 2017; Braun and Clarke, 2006; Cislaghi and Heise, 2018; United Nations Foundation, 2017; El Shiekh and van der Kwaak, 2015; Alemayehu et al., 2016; Ruark et al., 2019; Andajani-Sutjahjo et al., 2018; Ndinda et al., 2017; May, 2016), local leaders, health providers, male partners, and family/friends. Using this initial codebook, LK and RH read through a selection of interview transcripts independently, making note of any new and emerging codes, the final codebook was refined and agreed upon following frequent meetings.

The next stage of analysis was carried out by LK, AB and ML who independently reviewed the codebook alongside the 12 transcripts (HCP, community leaders, and religious leaders). A table of potential themes was created and each author took a participant type and systematically populated this table with all relevant quotes. Finally, data within these themes were cross-checked by all three authors, and we held a final meeting to refine themes with limited data, or that did not help answer the research question.

The final set of overarching themes included: perception of FP as a health priority, explanations for low FP use, and recommendations to improve access to FP. We further identified four sub-themes that explained low FP use: (1) desire for large families, (2) tension in decision-making, (3) religion and culture, and (4) fears of FP use. Additional illustrative quotations across themes not included in the paper have been included in Appendix 1.

Ethical approval

Ethical approval was provided by the Ethics Committee at the London School of Hygiene and Tropical Medicine (Ref: 16109) in November 2018 and from Amref (Ref: P542/2018) in October 2018.

Results

Perception of FP as a health priority

Most2 HCPs and local leaders did not consider FP to be the number one health priority for their communities, or the communities they served. Instead, participants described access to food, clean

water, and health concerns, including infant mortality to be the most important health priorities for nomadic communities. The uptake of modern FP (which included oral contraceptives, injectables, IUDs, implants, and condoms) was described as low in both study sites, and particularly for nomadic communities compared to semi-nomadic: ‘I have been here for a month and I have not seen any nomad come for family planning, but semi-nomadic access family planning’ (HCP, Male). Two HCPs described that in their opinion FP was one of the top three health priorities for the pastoralist communities they served. A third provider described that while FP was important, it came after broader reproductive and maternal health concerns. For example, one male HCP described their perception that high maternal and child mortality rates were a major concern amongst pastoralist communities, where many women deliver at home:

In this area people are giving birth at home and when they come here [to the health facility], there is a complication where you can’t even save the mother or a baby. (HCP, male)

Conversely none of the community and religious leaders viewed FP as a priority area. When asked if FP was important, a male community leader commented: ‘No I don’t see its importance; I don’t see why anyone with no health issue should use it.’

For the majority of community and religious leaders FP was acceptable only in the contexts of poor health of a woman or child. Although religious leaders described that FP was not used by couples in their communities, they too suggested that if a woman was sick, or had given birth too frequently, FP could be used: ‘But you cannot use these methods without reason; the religion does not allow that’ (religious leader, male). Another described how FP was accepted for his daughter to practice spacing:

[T]hey accepted it for her [my daughter] because she gave birth frequently, like when one was crawling the mother picks up another pregnancy. She needed to space up the children, she has nine small children, and she used the drugs for spacing. (Religious leader, male)

For all of the community and religious leaders, access to clean water and food emerged as the most important community health concern. Local leaders described that they needed water for cleaning and food for children who were ‘weak’. This was particularly apparent in interviews where participants said their communities felt ignored by the government. For example, one woman lamented: ‘We have a lot of issues, the government does not help us much since we came here’ (Community leader, female). The availability of, and access to, health facilities emerged as a priority across all of the interviews with community and religious leaders. This can be seen in a community leader’s comment, ‘We don’t have a hospital here we need it so much, sick people who can’t afford to go to the hospital just stay at home.’ (Community leader, female). Despite a need for health facilities and services, there were few in the area and among those that existed, these were not easily accessible.

Explanations for low family planning use

After situating FP within the wider context of health priorities and exploring the acceptability of FP, we explored explanations for low use of family planning amongst pastoralist women and men from the perspectives of HCPs, community leaders and religious leaders. We identified four interconnected sub-themes that helped explain the low uptake: Desire for large families, tension in decision-making, religion and culture, and fears of FP use. We discuss each sub-theme below.

Desire for large families

Low uptake of FP was largely attributed to community desires for large families. Most participants stated that couples typically had 10 children. One religious leader said, ‘80% of them [women] give birth to 10 children, others 8’ and another said ‘we give birth to the maximum’. Community leaders described couples who had more (‘it goes up to 15’), or less than 10 children.

While HCPs identified a desire for large families as a barrier to FP uptake for both nomadic and semi-nomadic communities, community leaders and religious leaders instead saw FP as a barrier to having many children. HCPs described they felt they were perceived to be preventing communities from achieving large families by providing FP, as seen in one HCP's comment:

[the community] say [...] they want to get children right now, and you don't want them to get children. So, they say, let us have children first and then I will come for family planning, or, I don't want family planning, what I want is children. (HCP, male)

For religious and community leaders, having many children was described as 'good' and an 'advantage' because it meant responsibilities could be shared amongst children: 'It's an advantage, you will take one [child] to school, the other to serve God, and another to help the mother ...' (community leader, female). This was also reflected in a religious leader's comment:

Many children are very important. The larger the number the more the benefits. They take care of the community, increase the population of the community during census and the community land, they help in strengthening the religion. (Religious leader, male)

However, some community leaders also described that having many children was both 'good and bad' as one said:

You would want to have more children but also there are no vegetables and no balanced diet so women might lose a lot of blood. [...] if you can get all that and are healthy then it's OK to give birth to 14 children, it means more family members for you. (Community leader, female)

This highlighted the potential challenges, from the perspective of local leaders, of having many children in a context of limited health services, food insecurity, infant mortality, and health systems operating with limited government resources.

Tensions and secrecy in decision-making about family planning

Many participants used the language of permission and consent to describe women's access to FP methods. Men, in particular husbands, were described as key FP decision makers, who played a role in shaping access to FP for women. Both HCPs and local leaders were aware of existing gender norms that men often made FP decisions, and while HCPs found ways to circumvent these norms, local leaders often reinforced these existing norms.

HCPs delivering FP services described that women visiting the health centre needed permission from their husbands to access FP services. They described that husbands were often against its use, which prevented their patients from using FP, as seen in a female provider's comment: 'A nurse will advise her, but the response will be that my husband does not allow me to take family planning, or it is not allowed majorly with our religion.'

In a context where the majority of men were perceived to be against FP use, HCPs played a key role in helping women who wanted FP to access it discreetly, without the knowledge of their husbands. This also influenced the choice of FP method women selected. One HCP described that some women use less visible FP methods (such as the injection or 'Depo-Provera'), so they could hide their use. Another HCP said they kept women's health records so their FP (contraceptive pill) use was hidden:

[Women] don't want the husband to know, those who are educated, like the place I was, I had only two of them [women] who were coming for tablets and they normally ask that you keep their book because they don't want their husband to know. (HCP, male)

Despite the important role men played in FP decision making, HCPs described that men did not always want to be involved, as a male HCP said, 'some of them [men] believe that the FP issues is only for women and not for men'. Others described that whilst they provided services in secret, some women did consult their husbands:

Some will tell you ‘just give me that Depo-Provera, because there is no evidence that I was given it’. But also, some agree together with their husband that they need to use family planning. (HCP, male)

That women kept their FP use hidden, particularly from husbands, was also noted by local leaders and one male community leader reflected on the role HCPs played in maintaining this secrecy: ‘When she wants advice, she will mostly talk to the healthcare provider. They always tell the health workers about their secrets.’

Community and religious leaders conformed to the gender norm that men made FP decisions, advising women to obtain consent to use FP from their husbands despite beliefs that men would not consent to its use. For example, one female community leader described how she would advise women to first consult their husbands: ‘I will tell her to discuss it with her husband. When he accepts it, she can go for it, but as a community leader I can’t tell her to go for it.’ For one male religious leader, men were assigned the decision-making roles by their religion:

The religion says that a woman should ask permission from her husband first, the second is her parents [...] it is not encouraged that she should speak to others. It is a must for a woman to obey her husband, even if he is wrong, she must persevere. (Religious leader, male)

That men had the final say was evident from these comments, even when they were perceived to be in the ‘wrong’.

Religion and culture

Religion emerged as important in shaping norms around FP, and some participants (particularly religious leaders) described religion was against FP use (‘our religion is against it’). Both religious and community leaders said that FP was associated with anti-Islamic beliefs, and mentioned negative consequences or punishments for going ‘contrary to God’. For example, a male community leader described that when asked about child spacing by community members, he advised it is anti-Islamic: ‘I just told him that there are some non-Muslims who use it but we don’t use it unless it’s necessary.’

A male religious leader explained that ‘god spaces our children for us’, summarising the agreement across religious and community leaders that the number of children a couple had was determined by God, and while couples desired large families (as discussed in the theme above), they also accepted what God gave them: ‘[T]here is no one who talks about the number of children they want to have; it’s what God gives them. They accept it.’ (religious leader, male)

In contrast to religious and community leaders, HCPs highlighted the tensions between delivering FP messaging and religious beliefs. This can be seen in a male HCP’s comment: ‘[Community members] say they don’t use family planning because there is religion.’ HCPs did not discuss god, or the content of the religious beliefs related to FP. Instead, when a female HCP reflected on the challenges of telling communities to use FP when they believed that it was contrary to their religion she explained: ‘It will be so hard for you to try to tell that person- do 1,2,3 – if their religion is telling them not to do 1,2,3.’ In addition, HCPs also cited culture as a barrier to accessing health and FP services. In particular, because culture was a reason for having many children, as described by a male HCP, ‘It’s a culture thing because they want to get more children.’ Another female HCP said the challenges in providing healthcare were mostly due to culture: ‘When it comes to health, the challenges are just the culture. The culture is deep inside the roots. The religion at least, it’s not that much compared to the culture.’ However, these references to culture were often accompanied by little context, culture was often used interchangeably with religion, thus a more in-depth analysis was challenging.

Fears of family planning use

Finally, participants cited fears of FP, including fears of side effects. HCPs described ‘myths and misconceptions’ held by both women and men. They also described community perceptions of FP as ‘defective’ or ‘bad’, and associated with infertility. Community leaders described side

effects such as infection associated with the injection, and conversely to HCP descriptions, some described inadequate information on side effects (e.g. heavy bleeding) as a reason why women stopped taking FP. This was seen in a female community leader's comment: 'When people took the injection, they realized a heavy flow during their menses that cannot be stopped. So, some people stopped taking them, but some still continue.'

One community leader called FP 'white man's propaganda' and went on to explain that their livestock had side effects following an injection, and this was how FP was viewed by the community:

They injected the goats because of ticks but the moment they were injected the goats lost all their teeth, so they believe that the way their goats have become is the way their women will become if they take family planning medication. (Community leader, female)

Recommendations to improve access to FP

Two additional sub-themes emerged as barriers, but also as entry points for improving access to FP. These included: (1) structural barriers specific to nomadic pastoralist populations, and (2) limited community awareness and knowledge of FP methods. HCPs and community leaders described a need for more facilities and outreach, in addition to multi-stakeholder awareness-raising.

Structural barriers

Providers described how access to care including the uptake of FP, maternity services and interventions to address malnutrition was low amongst nomadic pastoralist communities. Some went further to describe how, despite similar health needs, access was more difficult for nomadic compared to semi-nomadic communities. This was partly a result of a greater distance to the health facilities, and a reliance on other forms of care prior to seeking out a health facility. A male HCP described how nomadic groups preferred to access traditional health care in the first instance, which meant they often accessed formal health care too late: 'Nomadic [people] ... they wait for too long, because they want to seek some interventions elsewhere'.

Both HCPs and community leaders stressed the impact of some of these structural barriers in preventing FP access. While access to vehicles, transportation, and commodities were cited as challenges to providing outreach, providers underscored the importance of developing more health facilities and increasing the number of outreach sessions to these communities:

The solution in nomadic areas is more facilities ... We can't only have one health centre in the whole sub location and it's a big catchment area, reaching those people. If they cannot access, let's have the outreaches to reach them. (HCP, male)

Overall, providers described that health services needed to be tailored to the communities they served, which often meant having services that moved with the communities as they migrated, as one HCP described:

You have to have a nomadic kind of clinic where they move with the people ... [if] they move and the health service doesn't move to them, they will not get that service. (HCP, male)

Multi stakeholder engagement

HCPs described the only way to bring about a change in attitudes towards FP was through engaging community members around FP, with a focus on men and religious leaders as the main barriers to its use. This was often through education, as one male HCP said, 'What we need is education to those people, they [HCPs] can even talk to Sheikhs ... This community needs education, I think education can change them.'

Other HCPs described low use of FP was down to a lack of information seeking the behalf of the community, possibly compounded by what HCPs perceived as low educational levels with community members 'not that literate' as one male HCP described: 'Family planning is safe. It's low

because they [men] are not educated and they don't allow their women to access.' Another highlighted HCPs were delivering information and services, and the issue was on the side of community members:

I believe the health workers, they have the knowledge and they get this FP commodities, so it is most likely on the side on the community failing to get a lot of information about these FP services. (HCP, male)

Few participants reported on the content of FP messaging, however, when they did, it focused on the health benefits of child spacing in for example, 'preventing anaemia' and ensuring mothers are 'well nourished'. One HCP provider described the need to involve multiple stakeholders, including community influencers, to engage and inform the community on FP issues:

To ensure that the FP needs are achieved, we need to involve very many stakeholders. One of them is the government, the ministry of health. Another thing, elders, spiritual elders, Sheikhs, should be taught and given good information about FP. (HCP, male)

Finally, community leaders had differing opinions on who should deliver FP education. Similar to HCP views, one community leader said that it should be HCPs as they 'understand it better', while another said that it should be men because providers are not always available: 'I would say men should teach it, it is possible to get a woman, but you know women are weak', however, one female community leader said that women should discuss it amongst each other.

Discussion

Drawing on interviews with HCPs, community leaders and religious leaders, our findings provide insights into some of the reasons for low access and use of modern FP amongst nomadic and semi-nomadic women and men in Wajir and Mandera, which resonate with the 2014 Kenya Demographic and Health Survey (DHS) results (United Nations Foundation, 2017). We explored three overarching themes to explain the low uptake of FP from the perspectives of HCPs and local leaders: whether FP was a health priority, explanations for low use of FP, and recommendations to improve access and uptake. Importantly, we found four interconnected and overlapping themes that explained the low uptake and use of FP: a desire for large families, men as FP decision-makers, religious and cultural beliefs that limited contraceptive use, and fears around modern FP. Although there is limited research among pastoralist communities, our findings are in line with prior research among rural populations that documents preferences for Traditional Birth Attendants, cultural beliefs and practices that discourage FP use, and gender norms that assign men decision-making roles as important in shaping access to FP (El Shiekh and van der Kwaak, 2015, Alemayehu et al., 2016).

Although prior studies, suggest religious leaders and HCPs are key gatekeepers to FP (Chebet et al., 2015, Dougherty et al., 2018, Ruark et al., 2019), our findings reveal some tensions in beliefs between HCPs and local leaders. We found HCPs perceived FP to be desirable and necessary to limit family size and described access to commodities, costs of transport, religion, culture and education levels as barriers. Local leaders instead perceived FP to be mostly unnecessary and emphasized urgent and important issues related to food security, clean water, access to health facilities for immunisation and medication, and maternal and child health more broadly. While HCPs described religious beliefs as reasons communities delayed help-seeking more generally, local leaders saw FP as challenging religious, cultural and normative desires for large families. They emphasised that God determines the number of, and spacing between, children and found FP to be acceptable only in exceptional circumstances – where a woman had children already and was experiencing health issues due to short birth intervals. These tensions contributed to HCPs reporting that a community desire for large families, supported by religious and local leaders, made it difficult for them to provide FP services, potentially viewing community fertility preferences and practices as a hindrance, while local leaders often described large family size to be a good thing.

The tensions we find between local fertility and family planning preferences, as described by community representatives (local leaders), and what they described as national/international views on FP are similar to what has been reported elsewhere (Andajani-Sutjahjo et al., 2018, Ndinda et al., 2017). For example, in Papua New Guinea and South Africa programmes seeking to promote 'modern' or medical methods that are not sensitive to local contexts and ignore historical population control policies, clash with traditional and indigenous FP practices, resulting in poor uptake and potentially disrupting local dynamics and knowledge. In our study, one community leader described FP as 'white man's propaganda' revealing potential distrust in external interventions promoting FP programming, which has been common in Kenya where FP is being integrated into health facilities (May, 2016). These findings point to the power relations inherent in health and FP programmes which draw on global targets, indicators and language to shape service delivery. Our findings underscore the urgent need for services that respond to pastoralist needs and lifestyles, such as improved outreach efforts. This requires government, policymaker and donor efforts to both recognize and address the structural barriers that pastoralist communities face, and locate efforts to improve FP services within broader efforts to respond to structural neglect and marginalisation of pastoralist communities.

We also found that HCPs may have represented the external interventions religious and community leaders expressed concerns about. HCPs were not from the communities they served and most had worked in their facility for less than one year. Compared to the communities they served, HCPs were younger, had fewer children and were Christian in a predominantly Muslim setting. Differences in socio-economic status, cultural and linguistic backgrounds between HCPs and patients may result in provider bias (FitzGerald and Samia, 2017, Starling et al., 2017, Arpey et al., 2017, Mannava et al., 2015). HCPs had internalised community gender norms around decision-making, which they said was a barrier to delivering FP to women who did not have their husband's consent. Provider beliefs around which women can access FP and when, impact women's access to long-acting FP services (Solo and Festin, 2019, Dynes et al., 2018). Nevertheless, HCPs in this study held beliefs about what was expected of them as providers and played an important role in women's access to FP, which was often done cooperatively with the woman seeking FP in secret. Training HCPs from pastoralist communities could be helpful in addressing some of the tensions between HCPs and the local beliefs outlined, as well as efforts to ensure non-local providers receive training to provide culturally sensitive services and build trust and relationships with the nomadic communities they serve (Ali et al., 2019).

Although HCPs also recognised structural barriers to FP access and explained the need for more facilities and outreach activities, their solutions provided at times, a simplistic view on the barriers to access, which ignore the host of other barriers both they and local leaders identified. This highlights the tension between sociocultural and religious influences on FP uptake among female community members and what HCPs perceive community members want. We found instances where HCPs attributed a lack of access to low levels of education amongst community members, at times apportioning blame. HCP suggestions to increase provision of services may not be sufficient without considering the type, quality, and content of service delivery. Instead of ascribing religion and culture as barriers to uptake, FP counselling provided by HCPs has to navigate and honour sociocultural and religious influences such as demands for large family size, while still enabling women to access the type of FP method they want, as well as ensure that women are fully informed of the different side effects of the medication to help reduce women from starting and then stopping their chosen method (Bekele et al., 2014, Chebet et al., 2015, Hyttel et al., 2012, Diamond-Smith et al., 2012).

Importantly, our findings on HCP perceptions of women's role in FP decision-making emphasise that the process is not always straight-forward. At times, men say FP is a 'woman's issue', and some women manoeuvre around men's prohibitions and play an active role in decision-making, taking advantage of the secrecy offered by some modern FP methods. For example, participants described some women wanted to use methods that were not permitted by their husbands and so opted for ones they would be able to hide from them husbands (such as the injection). It is

important to note however, that in the context of preferences for large family size, not all women in these communities want to practice FP. Further research should explore the complicated nature of FP decision-making, to understand opportunities for women's greater role, both through gender transformative approaches as well as in the absence of men's interest in FP, and the role HCPs play in supporting and enabling women's preferences. Our findings highlight the importance of including men, to increase their awareness and acceptability, of FP for those women who wish to access services.

Our study has several limitations. First, we interviewed twelve participants and our findings are not representative of all HCPs, community leaders, and religious leaders in Wajir and Mandera. Our sample size was not large enough to examine differences by gender or age, which could be an area for future research. Female community leaders were identified as such by male community leaders and were all traditional birth attendants, which may reflect the research topic and the limited leadership roles for women. Other challenges result from the interpretation of interview questions, for example when HCPs were asked how other HCPs typically react to delivering FP to pastoralist women, this was sometimes interpreted as being about confidentiality procedures. Limited interviewer probing made a deeper analysis of interesting research avenues challenging. Finally, we do not present the views of community members themselves in this paper, which have been presented elsewhere (Lowe et al., 2021) and in forthcoming publications from the project team. Despite these limitations, this qualitative research contributes to the limited research that examines HCP and community perceptions on FP amongst pastoralists.

Conclusion

Programmes to improve access to, and uptake of, family planning in this context should be delivered alongside interventions targeting immediate pastoralist community health concerns and must incorporate structural changes. Restrictive gender norms limit women's access to family planning, and these influence local leaders and HCPs. HCPs that are aware of, and sensitive to, the religious, cultural and normative reasons for non-use of modern family planning, could play a key role in improving access.

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Data availability statement

The Research Team recognises its obligation to protect the rights and confidentiality of the study participants and communities. In line with these considerations, the dataset has been anonymised to prevent identification of individuals and access to this dataset is restricted to members of the Research Team and related technical and field staff.

Author contributions

MH and BC were responsible for the conceptualisation and research design. LK, LB, RH, SP contributed to the design of the study. MH was responsible for the development of the research protocol, conceptual framework, and supervision. LK was responsible for the research project management. LK and RH were responsible for fieldwork implementation, supervision, and data quality. LK, RH, BC led the training of field interviewers. LK, AB, and ML with support from MH, BC, LB were responsible for the data analysis and interpretation. LK drafted the manuscript which was reviewed and edited by all authors. MH and LK had full access to the data in the study and take responsibility for the integrity of the data and data analysis. All authors read and approved the final manuscript.

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Appendix

Table A1. Themes and illustrative quotations on explanations for low FP use by health providers, community and religious leaders.

Themes	Quotes
Desire for large families	<p>Health providers <i>I can say per household, among dad and kids, it can be almost 12 ... more than 10(female, HCP)To me, all of them have the same [family size]. Because they want to get more children, so there is no difference between those living in the town and those who are moving with their animals. Also, it is a cultural thing, they want to get more children.(male, HCP)Yes, the nomadic are many. Because sometimes they get difficulties getting the family planning services. But in semi-nomadic, at least some of them are able to access the services of family planning so their volume of family is a bit reduced(male, HCP)</i></p> <p>Community leaders <i>It is good and it is also bad. You would want to have more children but also there are no vegetables and no balanced diet so women might lose a lot of blood. Although there are people who are doing small scale farming and things are getting better than before, if you can get all that and are healthy then it's OK to give birth to 14 children, it means more family members for you. [...] Well there are others who have given birth to 8 children, but the one who has more children is loved by the community, if someone has less children people won't say anything because children come from God, but people love the one who gives birth to more children. (female, CL)It's good, we want that here. You take them to school and madrasa, they learn to be a good person when they grow up, they will help you and themselves, they take care of animals and take care of the parents when they grow old. (female, CL)Children are what God gives us. Mostly we have animals including, camels, goats, cows and that's all we have for a living. Having many children will help you to take care of them. If you have 10 kids you will divide by 2, 5 will go to town and attend school, 5 will take care of animals in the rural with the parents They will take care of the animals when the parents are old, and take care of them. (male, CL)</i></p> <p>Religious leader <i>Many children are very important. The larger the number the more the benefits. They take care of the community, increase the population of the community during census and the community land, they help in strengthening the religion. [...] Some are not raised well, they don't get good nutrition, and when they grow up, they are problematic. Some give birth to many children and can't take care of them because of their social status in society, and the number of mouths to feed basically, hand to mouth with limited resources but in the Somali community when someone is poor, we help each other out. (male, religious leader)Maximum is nine, I can say it's the average (male, religious leader)For the young women, most families have six to seven children (male, religious leader)</i></p>
Religion and culture	<p>Health provider <i>Usually they say they want more children, but if you talk with them in a good way, that they need less, by way of child spacing, then they will say let us consult the partner, then come back. Then sometimes they will say 'the religion doesn't allow us because God gives the children and is the one who takes care of us'. That is the response most of the time.(male, HCP)Whenever we see women who come here and give birth to nine kids, and are still giving birth with no food, they are really willing [to use family planning] but the only thing is the religion giving us problems. (male, HCP)Those who come [for family planning] are very few, compared with those who are not coming for family planning [...] Because of the religious and cultural beliefs about family planning. Some of them they say 'me I don't want to do family planning, let me get the children first and I'll come after finishing getting children, the number of children I want'. (male, HCP)</i></p> <p>Community leader <i>They [religious leaders] say that something will happen to you [if you use family planning] because you are doing contrary to what God wants. They were talking about an Arab woman who had five children, she said that she cannot provide for more children, so after giving birth she told her husband that she wanted to get the injection but he disagreed, but she went ahead anyway. But sometime later when she got pregnant she gave birth to nine children, so the religious leaders say that this happened because of what she did. I heard that people saw this on facebook, so they say that this is a non-Muslim agenda and people should not follow it.(female, community leader)We live under the government and they feel like when a woman has three children she can take an injection; but our culture as Somalis is contrary to that, unless someone is facing a difficulty, like I had mentioned, we don't see any other reason why child spacing should be used. (male, community leader)</i></p> <p>Religious leader <i>For me, according to the saying of the Prophet PBUH, is to marry and give birth to as many children as possible [...] I haven't seen any time that it [family planning] has been needed, God spaces our children for</i></p>

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Themes	Quotes
Men as decision makers	<p><i>us. (male, religious leader)Somalis say you perform your prayers according to the conditions you are in, there could be conflict and you could pray as you flee, if you are very hungry and you stumble upon a carcass you are allowed to eat it. So if you have a health issue, it's possible to consider using family planning because you have no choice. (male, religious leader)When she [a woman] is fine, there is no health issue, it [family planning] is not allowed. Islam does not allow that. (male, religious leader)</i></p> <p>Health providers <i>A nurse will advise her, but the response will be that my husband does not allow me to take family planning, or it is not allowed majorly with our religion ... such issues. (female, HCP)I'll be sincere, some [women] speak, some hide. Some will tell you just give me that Depovera, because there is no evidence that I was given. But also, some, agree together with their husband that they need to use family planning. (male, HCP)They [women] don't want the husband to know, those who are educated, like the place I was, I had only two of them who were coming for tablets and they normally say that you keep their book because they don't want their husbands to know ... Their husbands are against that, they say their tradition says that the work of a woman is to give birth, nothing more. (male, HCP)</i></p> <p>Community leaders <i>I will tell her to discuss it with her husband when he accepts it she can go for it, but as a community leader I can't tell her to go for it. (female, community leader)When she wants advice, she will mostly talk to the healthcare provider they always tell the health workers about their secrets. (male, community leader)</i></p> <p>Religious leaders <i>She will do it alone if she has seen the importance, mostly because even her husband might refuse, most men won't accept child spacing or reducing the number of children he might get. (male, religious leader)The religion says that a woman should ask permission from her husband first, the second is her parents, other than those two people, it is not encouraged that she should speak to others. It is a must for a woman to obey her husband, even if he is wrong, she must persevere. (male, religious leader)Men will talk about it much, because men will not accept it when a woman looks for it [family planning] herself without the consent of the husband. If she is sick it can be accepted otherwise no one can accept it here. (male, religious leader)</i></p>
Fears around FP	<p>Health providers <i>The main reasons for this [low uptake of family planning], are myths. I mean misconceptions, whereby some women or some people within this county, and I've not seen everybody – I've seen some – don't believe in FP. They believe there is some defect, they are bad. (male, HCP)Some believe, for example, if you use family planning, you don't get the menstruation period. If you don't get the menstruation period, they call it [enchafo] they mean that is inside your uterus. So that is one of the myths. And there are many more myths according to the community. (male, HCP)</i></p> <p>Community leaders <i>So, you can choose the pill or the injection and get it from the hospital. As I said some people got sick with the injection, but there was a huge gap between their children. (male, community leader)Some say this is a white man's propaganda and they don't want us to have more children but people who are educated do not have anything against family planning. Most nomads do not believe in family planning they accuse them of injecting their goats and now their goats are not giving birth [...] they injected the goats because of ticks, but the moment they were injected the goats lost all their teeth, so they believe that the way their goats have become is the way their women will become if they take family planning medication. (female, community leader)I have heard of a condom that is used by the filthy, where it blocks the semen from going through. (male, community leader)</i></p>