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Sex, power, marginalisation and HIV amongst young fishermen in Malawi: Exploring intersecting inequalities

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ABSTRACT

Through scale-up of effective treatment and prevention, HIV incidence rates are falling across Southern and Eastern Africa. However, key population groups, including people living in fishing communities, continue to face an elevated risk of infection and have high rates of undiagnosed disease. We set out to investigate how intersecting inequalities make young fishermen working on the southern shores of Lake Malawi particularly vulnerable to HIV-infection. We used qualitative research methods including observations (over a 15-month period), in-depth interviews (59) and focus group discussions (16) with a range of male and female participants living and working in two fishing villages. We found that the roles that men occupied in the fishing industry depended on several factors, including their age, socio-economic position and the amount of experience they had in the industry. In turn these roles shaped their lives, including exposure to occupational risks, mobility, living conditions, economic remuneration and social standing within the community. In this context, younger and poorer men occupied roles with the lowest social standing in the industry. Nevertheless, in these communities where poverty was pervasive, young fishermen were able to exert the power they gained through access to money and fish over poorer younger women - pressuring them into sex and increasing the risk of HIV for both men and women. Drawing on an intersectionality framework, we contextualised these findings to consider how young men's social location, relationships and experiences of both privilege and marginalisation were shaped by broader economic and political processes. We conclude that interventions to prevent HIV in fishing communities need to address how power plays out in the broader social and economic environment.

Credit author statement

Eleanor MacPherson is lead author, she designed the study, undertook the research and analysis with Mackwellings Phiri, Victoria Nyongopa and John Sadalaki supporting the data collection and analysis. Nicola Desmond, Sally Theobald, Janet Seeley, Victor Mwpasa and David Lalloo provided intellectual input and substantial support of the drafting of the manuscript.

1. Introduction

Despite recent progress in reducing HIV risk and infections in

Southern and Eastern Africa, some groups appear to remain highly vulnerable to HIV. Men and women working in in-land fishing have been identified as a group at an increased risk, yet have been neglected in research and more broadly to the response in the epidemic (Government of Malawi, 2015). In this paper, we apply an intersectionality framework to men's experiences of working in the fishing industry in Southern Malawi. We focused on gender, age, economic standing and job role to understand how intersecting inequalities created diverse forms of privilege and marginalisation for young men and how this, in turn shaped health behaviours and HIV risk. This paper aims to move beyond prevailing gender-binary understandings of HIV risk to provide more nuanced understanding of the drivers of social inequality that shapes

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different groups of men in different ways. Drawing on these insights should provide more responsive and targeted interventions to address HIV risk in fishing communities.

Intersectionality theory has been used by scholars to examine the ways gender, race, class, sexuality and ability work in concert to create interlocking systems of oppression (Hulko, 2009). Hankivsky (2014) sees the central tenet of intersectionality as the belief that inequities are "[...] never the result of single, distinct factors. Rather, they are the outcome of intersections of different social locations, power relations and experiences" (p2) (Hankivsky, 2014). Arguing that moving the focus of analysis beyond a specific axis of inequality such as gender, intersectionality draws out the varied and fluid configurations of social locations (e.g. race, gender, class, geography and migration status), and occurs within a context of connected systems and structures of power (e.g. laws, governments and other forms of political and economic union). These interactions can change over time and differ depending on geographic settings, but nevertheless create interdependent forms of privilege and oppression that are shaped by colonialism, imperialism, racism, homophobia, ableism and patriarchy (Hankivsky, 2012). Intersectionality builds on the work and long history of scholars and activists interrogating the ways different social axes such as class, gender and sexuality intersect and shape all aspects of people's lives.

In the last decade, there has been an increasing number of scholars drawing on intersectionality analysis to understand health inequalities in the Global South (Edström et al., 2011; Larson et al., 2016; Tolhurst et al., 2012). Much of this work has centred on HIV and stigma and includes Kennedy et al. (2013) and Mburu et al. (2014) who use intersectional analysis to understand HIV-positive men's experiences in Swaziland and Uganda (Kennedy et al., 2013; Mburu et al., 2014). Taking an intersectional approach brings to the fore, the social construction of health inequalities and the power relations that underpin them (Larson et al., 2016). For HIV risk, this provides a way of understanding how sexual behaviour is shaped by dynamic interlocking systems of power, moving beyond binary accounts of gender to see how intersecting inequalities shape different groups in different ways. In this paper we draw on an intersectionality approach, to provide a deeper understanding of sexual behaviours of young fishermen and how their social location shapes their behaviour. In Malawian lake-shore communities, a context of extreme scarcity, young fishermen have access to material resources such as money and fish which gave them power. However, the extremely difficult working conditions and occupational risks, combined with very few alternative livelihood options left young men in a marginalised position and drove engagement in risky sexual behaviour.

We have structured the paper in the following way: in the background we provide an overview of historic factors shaping present day Malawi, the economy, and describe in-land fishing and HIV risk within fishing communities. We then describe the methods we used to meet the study objectives. This is followed by our research findings, which centre around three key themes: hierarchies of power in the fishing industry; education, economic position and marginalisation, sex and power; and HIV infection and men. We end the paper with a reflective discussion of the importance of considering how a more nuanced understanding of power and marginalisation needs to be incorporated in HIV interventions.

1.1. Background

1.1.1. Malawi, fishing and marginalisation

In 1964, Malawi gained independence from the British Empire and as a post-colonial state, the legacy of colonialism continues to be felt. In the 1980s, structural adjustment policies (SAPs) were imposed on Malawi in response to the Global debt crisis (Kalipeni, 2004). SAPs required that borrowing countries had to implement wide-ranging policies such as privatization of state-owned enterprises and liberalisation of trade and finance (Kentikelenis et al., 2015). Despite compelling evidence of the

devastating effect that SAPs had on development outcomes in the Global South, one of Malawi's biggest expenditures until the early 2000s was servicing of debt to the Global North (Kanji et al., 1991). These conditions, shaped by both the broader structural terms of international norms on trade and the local climate, mean that development planning in Malawi is challenging because of the unpredictability of income, investment and employment (Wendland, 2010).

Malawi is an extremely poor country with a per capita gross national income of just \$320, one of the lowest in the world (IMF, 2017). Most public services are funded by international donors and the economy is highly dependent on primary agricultural commodities for the export market including tea, sugar and tobacco (FAO, 2002). Formal wage employment is low and subsistence farming is the predominant livelihood strategy, particularly for people living in rural areas. In 2020, Malawi was identified as one of the most food insecure countries in the world (Chitsulo, 2020). Hajdu et al. (2009) note that macro-economic shocks, weather induced shortfalls, and demographic pressures are all key factors in accounting for food insecurity in Malawi (Hajdu et al., 2009).

Across sub-Saharan Africa, small-scale inland fishing provides employment and food security in many rural communities (Youn et al., 2014). Yet, inland fisheries have rarely been a national or regional governance priority, often being surprisingly overlooked and undervalued in national policies (Cooke et al., 2016; FAO, 2017). The neglect of inland fisheries can be seen in their absence from both high-profile global fisheries assessments and the Sustainable Development Goals. People living and working in small-scale fishing face considerable challenges, including competition for, and maintaining access to, fish and capital (FAO, 2017; Ratner et al., 2013). They are often geographically hard-to-reach, poorly served by public services, including health services (Allison and Seeley, 2004; Bwire et al., 2017; Merten and Haller, 2007; Seeley et al., 2009), and socially marginalised (Westaway et al., 2007).

The small-scale fisheries sector plays an important role in providing employment, nutrition and income to Malawians. The fishing sector directly employs approximately 60,000 fishers and approximately 450,000 people in fisheries-related industries and it is a vital source of animal protein (Government of Malawi, 2009). Most fish caught in Malawi is through the small-scale commercial sector and fishing is usually undertaken at night using engine boats, dug-out canoes and nets. In Lake Malawi, conventional fisheries management approaches have failed and fish stocks are under intense pressure (Jamu et al., 2011). Climatic changes are also reducing fish stocks in Lakes in Malawi (Banda, 2013). Despite the importance of fishing to many rural Malawian's livelihoods and food security, fishing communities have often been neglected in Malawian development policies.

Traditionally, fishing has been viewed as a male only occupation with women's significant and varied contribution often overlooked. In Southern Lake Malawi, men almost exclusively carry out the fishing, with women predominately drying, processing and transporting fish to markets for sale (MacPherson et al., 2015). Through these rigid gendered division of labour, many men's access to the means of production broadly provide them with more economic power within the industry. Women's agency and their power to act can at times be constrained by these terms of engagement which leave them at a disadvantage when negotiating access to fish (MacPherson et al., 2012).

1.1.2. HIV and fishing

Fishing communities in Malawi, like in other countries in Africa and Asia, have a high burden of HIV (Government of Malawi, 2015). In 2017, HIV prevalence was estimated at 9.6% in the 15–49 year old group (UNAIDS, 2015). In the South-East region, where Mangochi is located, HIV prevalence among men is 12.5% and is 17.4% among women (Ministry of Health Malawi, 2018). However, men and women working in the fishing industry are considered by the Malawian Ministry of Health to be at an increased risk of HIV (Government of Malawi, 2015).

In the academic literature, key factors relating to the nature and dynamics of the fish trade and lifestyle have been identified as rendering people living in fishing communities particularly vulnerable to HIV infection. This reflects other occupations in sub-Saharan Africa, with a high level of migration and mobility that have been associated with HIV acquisition such as truck drivers, motorbike taxis drivers, and miners (Campbell and Currey, 2003; Campbell, 1997; Lurie et al., 2003; Nyanzi et al., 2004).

In Malawi, many fishermen and women migrate from the northern part of the country to fish in the southern part of Lake Malawi. During their work, they can travel long distances in search of fish catches and to sell catches at market. Both these activities mean that fishermen and women spend months away from their families (MacPherson et al., 2012; Nagoli et al., 2010). Within the Southern region, people migrate to areas where fishing activities are intensive. This high level of mobility can mean that social constraints on sexual behaviour - for both men and women - which apply at home, may not apply at fish landing sites (Kissling et al., 2005). Long and unpredictable absences away from home villages can create challenges in offering both HIV prevention and treatment programmes (Seeley and Allison, 2005) and may also mean that fishermen are less likely to seek treatment for other sexually transmitted diseases, making them more susceptible to HIV (Asiki et al., 2011). There are risks involved in fishing, particularly when fishing is undertaken at night, as is common on Lake Malawi. Fishermen face dangerous conditions such as sudden changes in the weather and risk drowning. These risks can contribute to a culture of risk-taking and risk confrontation (Kissling et al., 2005).

Alcohol use is widespread in fishing communities in Malawi and in many parts of the world, being both a leisure time pursued in settings with few other diversions, as well as a way to help men cope with the dangers or stresses of their occupation (Kissling et al., 2005). This further compounds vulnerability to HIV since alcohol has been associated with riskier sexual encounters (Gerbi et al., 2009). Men and women working in the fishing industry, particularly those who are perceived to have less skilled positions such as labourers and small scale traders, are often socially marginalised and have a low social status (Westaway et al., 2007). This low social status coupled with high levels of risk in their work can mean some fishermen adopt an oppositional or hyper-masculine role (Connell, 1995; Westaway et al., 2007). The role of hyper-masculinity and the corresponding constructions of masculine ideals that equate men with dominance and risk taking have been identified as increasing men's vulnerability to HIV (Jewkes and Morrell, 2010). Prevailing gender norms and economic insecurity can often intersect to delay men's decision to seek care. In urban Blantyre, the need, both within the family, but also by the wider community to be seen to provide economically often acted as a barrier to seek care (Chikovore et al., 2015). Delays in health seeking for HIV can leave men with severely compromised immune systems, more advanced opportunistic infections that can be harder to treat and substantially greater risk of death (Druyts et al., 2013).

Transactional sex is widely recognised as a key driver of HIV vulnerability in fishing communities (Béné and Merten, 2008; Kwena et al., 2010), where it often takes the form of sex-for-fish exchanges. In these exchanges, female fish traders engage in transactional sexual networks with influential fishermen to ensure access to fish. By entering these exchanges, women can secure access to fish for free, or at a more favourable price (Kwena et al., 2010; Mojola, 2011). If these exchanges take place over a period of time with the same partner, men and women may not view themselves as at an increased risk of HIV infection. While fishermen in countries like Malawi are not wealthy in absolute terms, they are one of the few groups who are able to access a daily source of cash in their impoverished coastal and lakeshore communities, facilitating their capacity to pay for sex (Béné and Merten, 2008). In the global response to HIV, men have often been characterised as the oppressors and women the victims, with much less focus on the ways that the structural environment and relational dynamics of power, privilege

and vulnerability shapes men's risk of HIV (Edström et al., 2011) and this requires further unpacking with examples from specific contexts.

2. Methods

In order to explore to Malawian fishermen's vulnerabilities to HIV, we used qualitative research methods, as they provided participants with the opportunity to describe their lives in their own words (Mays and Pope, 2000). Qualitative research methods allowed us to explore how intersecting inequalities shaped participants' lives because it enabled them to articulate how they interpreted and navigated their day to day experiences of (lack of) power, privilege and social status. Drawing on intersectional analysis also meant that we situated the lived experiences of different men working in the fishing industry within the interlocking systems of power connecting experiences and relationships at the micro-level to the macro-level, paying attention to how the broader economic and social environment shaped their lives. When sampling, we drew on intersectionality frameworks to ensure we captured and included men from a wide range of ages, ethnicity, experience and roles in the fishing industry and occupational groups in order to move beyond viewing fishermen as a homogenous group.

One of the core principles of intersectionality is the requirement of researchers to undertake reflective practice, acknowledging the importance of power at the micro-level of the self and how this is linked to macro-level processes (Hankivsky, 2014). We conducted the research between January 2011 and April 2012 as a team. The researchers all spent more than a year in Mangochi living close to the residential areas and paying attention to all aspects and relationships within the fish trade. The lead researcher came from the Global North and therefore had the greatest social distance from the men working in the fishing industry. The other team members are all Malawian, but came from different districts and were formally employed by the research institution. In the study site (Mangochi), this meant they also were perceived as outsiders by the participants. Throughout the research, we regularly reflected on our different positions of power and how this may have shaped both the way we interacted with the participants and how the participants responded to us. One of the themes of our work was to explore sexual relationships and asking people about their relationships is very intrusive. As a team we tried to find ways to build up trust and rapport with participants. We spent time with men in the bars and the beach helped to build up trust and rapport, however, the transient nature of the boat crew members work made this challenging at times. For women, the female team members spent time in the afternoons on the beach with women, and we also visited sex workers during times when the bar was quiet to provide time to build up rapport - but again the transient nature of their work meant that women travelled frequently from the bars.

2.1. Study site

The study was situated in two fishing communities in the Mangochi District in the Southern Region on the Southern arm of Lake Malawi. The geography of Lake Malawi means fishing activities are concentrated in the Southern part of the Lake and Mangochi is the district with the most intensive fishing activities [49]. The most common type of fishing conducted in both villages was *kauni*; the term derives from the word *kuunika* that means to light or give light. The light refers to the lanterns held by fishing boat crews that are used to attract *usipa* a small cichlid fish during night fishing. From our observations, this type of small-scale fishing requires an engine boat, 3–4 canoes, lanterns, nets and a boat crew of 10 men. There were many of these engine boats in both villages (in one village there were more than 100 boats and in the other village there were approximately 30).

E.E. MacPherson et al. 2.2. Study design

In total, 59 interviews were conducted with 34 women and 25 male participants. We sampled participants from four groups: men working in the fishing industry; men with other livelihoods; women working in the fishing industry and women with other livelihoods (Table 1).

We conducted 18 focus group discussions; 10 with female participants, and eight with male participants. We sampled participants for the focus group discussions primarily by occupation and sex to create permissive and non-hierarchical environments for discussion (Kitzinger, 1995). The following groups were included in each village: female fish traders; male fish traders; male boat crew members; school going boys, and girls living in the communities (over 15 years); male and female groups working outside the fishing industry; and female bar workers. We identified participants during our periods of observations and by use of snowballing techniques, where participants who had been involved in the in-depth interviews were asked to identify participants who might be interested in taking part in a focus group discussion (Green and Thorogood, 2009).

Periods of observation were also carried out by the lead researcher and the research assistants. This included unstructured time where we spoke with different groups in the villages, buying produce and eating meals when invited. In addition to this, we had structured observations where we spent time in bars in periods following high fish catches, and observed fishermen landing their catches and selling their fish.

2.3. Data analysis

We used the framework approach for qualitative research to analyse the data (Ritchie et al., 2003). The framework approach provides a systematic structure for analysis of qualitative data that draws on both inductive and deductive approaches, and can be used in research teams where not all members have experience of qualitative research analysis (Gale et al., 2013). As a team we analysed the data following these steps. We began by becoming familiar with the data when all the team members read through all the transcripts. Using this process, we identified the thematic framework (drawing both on the topic guides deductively and from the data inductively). We then applied the framework through indexing using Nvivo 9, developed charts of the data into a matrix, and finally mapped and interpreted the data agreeing on key themes and findings as a group, and then discussed these in the light of intersectional theory. We undertook participant checking to check the accuracy of the findings. As a team, we presented the findings to different groups of participants during participatory workshops where participants were asked if narratives and findings reflected their experiences. This was done in an open format and participants were invited to challenge our findings. Overall, there was agreement with the findings we presented but there were different suggestions of how HIV in the fishing

Table 1 Participant groups included in the study.

Type of participant	Included in the sample
Men working in the fishing industry	Men working in the fishing industry including boat crew members, boat managers, boat owners and male fish traders
Men with other livelihoods	Men living in the fishing communities but not working directly in the industry including petty traders, farmers, bicycle taxi drivers, pick-up truck drivers and bar workers, as well as school-going boys (over the age of 15).
Women in the fishing industry or sex work	Women working in the fishing industry including female fish traders and processers, and sex workers from bars frequented by fisherfolk
Women with other livelihoods	Women working outside the fishing and sex industries, <i>mayi phikani</i> (women selling cooked food), women who brewed local beer, petty traders, schoolgoing girls (over 15 years of age) and farmers

communities could be addressed.

3. Results

3.1. Hierarchies of power in fishing communities

In the two study villages, we found a strong gendered division of labour. At the household level, female members were responsible for all caring activities which included water and firewood collection, cleaning and washing of clothes, cooking, and taking care of children and sick relatives. Men were predominately constructed as being responsible for providing financially for the household. Nevertheless, many women frequently discussed how in reality they would assume responsibility for finding money to provide food and basic needs for the household, particularly in households where men were absent for long periods of time.

Rigid gendered divisions of labour structured many aspects of the fishing industry. Participants clearly articulated that the physical activity of fishing was a man's role. When asked about why women were not involved in the fishing, all participants stated that women's presence on fishing boats was "unnatural" and expressed concerns about the lack of physical strength women had to undertake the fishing activities. Both men and women felt that women's presence on the boat would negatively impact on fish catches, however men voiced this opinion more vociferously.

Women's roles were concentrated in the processing and selling of fish, particularly of usipa. Men undertook fishing and selling of the catch. Women had to negotiate access to fish through men. Male fish traders also dominated the selling of the larger, more profitable fish such as chambo and Bombay. Trading in larger fish breeds required access to more economic and social capital where most men were privileged over many women. A further barrier to purchasing larger fish was the requirement to wade into the water or paddle. Gendered social norms in fishing communities often systematically excluded women from these social networks. The policing of women's behaviour to prevent them from paddling canoes or wading into the water to meet the boats acted as a further barrier for women trading larger fish. Selling larger fish also required access to refrigeration and good social networks to sell the fish quickly. Refrigeration and the initial outlay to buy fresh fish required much greater capital than purchasing smaller fish such as usipa, as this female participant noted in a focus group discussion:

Fresh fish needs many things like ice blocks, hiring a car with a lot of money and they also have some people whom they use to buy the fish, casual labourers, they also know where to trade the fish in advance, women fail due to limited capital and knowledge, there are some who are wise and are succeeding in their business while some are not wise enough, they do not know where to trade, buy ice blocks, she doesn't have fish carrying tins, she also does not have boys to carry the fish hence she just stays. FGD, female fish trader.

The barriers women described highlight the structural factors within the fishing industry that prevented women from increasing their income as fish traders or even competing equally with men.

Inside the fishing industry, the gendered division of labour limited women's livelihood options and provided more economic power to men. However, this was not the complete picture. We also found that there were rigid divisions between different groups of men working to conduct the fishing. Younger, poorer men predominately undertook the physical labour of fishing, whilst older and wealthier men who owned the boats gained the most economically from fishing expeditions. Similarly, there were also gradations of power that shaped women's positions: wealthier and better socially-connected women gained more from the fishing industry because they could secure fish and capital to trade fish on a larger scale, often by being married to boat owners, being related to someone who owned a boat or paying for the fish through income generated from previous sales. Wealthier women would also employ young male labourers to help them with processing or transporting the fish. The

fishing industry therefore provided these women with an income and access to capital. This often placed them in a stronger economic and social position than the younger men who they employed.

Boat crews normally comprised ten members, with eight of these being younger men aged between about 15 and 25 years old. The younger group of men frequently migrated into the villages (although some were born and lived in the villages). Barriers to entry to becoming a boat crew member were low, because this role did not require capital or any educational qualifications. Therefore, boat crew members were often the youngest and had the lowest social standing in the industry.

Boat crews were characterised by rigid hierarchies and usually run by two older and more experienced men who occupied the roles of *siginala*, and "head-of-the-boat". The term *siginala* is derived from the Chichewa word for "signal" and was given to the fisherman who attracted fish using lamps. This role involved the *siginala* getting out of the engine boat and into a wooden canoe with paraffin lanterns. He used the lights to attract the *usipa* fish and when he saw air bubbles from a shoal of fish, he instructed the boat crew members to cast the net. This role was the most skilled on the boat, but also the riskiest. If there were strong winds, the *siginala* could be blown out of the heavy wooden canoe and drown.

In the quote below a siginala discusses this:

When there is wind at the lake, when there is strong wind, some of our fellow fishermen die because of this, yes because there is strong wind huge waves, and signals we have the riskiest job in the boat crew because we may be carried away by the wind to other parts of the lake and since it is at night if the lamp light goes out no one will see you from the boat, you are gone. IDI, siginala/boat crew member

Siginala also carried the financial risk of the fishing expedition because if they were unable to locate *usipa* fish, the fishing expedition failed, and the crew did not get paid. To reflect this risk and skill they were paid twice as much as any of the other boat crew members. The "head-of-the-boat" was part of the boat crew but appointed to take charge of the technical aspects of the fishing when the boat was on the water. He tended to be older and well respected within the group and would maintain order. If boat crew members were not seen to be doing their job correctly, he would discipline them. Some of the participants described the hard, physical nature of discipline, particularly if the boat crew member was young.

It is true that sometimes boat crew members are beaten but they are not beaten intentionally. They are beaten when they don't do the job appropriately. When we go onto the water to fish, we want to catch fish. So, if someone doesn't do the job correctly, and he is young, you give him a slap. If he is the same age as you, it is difficult to beat him because it won't be right FGD boat crew member and farmer

All groups of participants discussed how the fishing industry had changed over time. Participants discussed how the past decade had seen a rapid expansion in the number of engine boats operating in the two villages, which in turn had led to increased competition for fish and had negatively impacted the availability of fish. This meant that boat crews had to travel further distances to locate fish. When the boat crews found an area that had plenty of fish, they would remain in the area for longer periods of time leading to prolonged absences from home and this often meant many of the men would engage in transactional sex.

3.2. Education, economy and marginalisation

Boat crew members frequently came from poor families and did not have access to economic resources to enable them to trade fish on a large scale, or own fishing equipment or boats. Few boat crew members had completed school, and in rural Mangochi, there were few alternative livelihood options, particularly for those who did not have access to land. Most of the boat crew members had grown up along the lakeshore

and were exposed to the industry from an early age. The younger men of the boat crews often tried to combine going to school with fishing and used the money to financially support their families or pay their own school fees. However, male and female participants noted that once younger men began fishing intensely, they rarely completed school. In focus group discussions, the participants also discussed how younger men often dropped out or struggled with school due to exhaustion from fishing expeditions. Others stopped attending because they enjoyed earning money and did not feel that school offered them any additional opportunities. This is explored in the quote below:

Most boys attend primary school only and usually stop in Standard 7 and 8. They abandon school because of the money they get from fishing. The other thing is their family situation. They feel content with the money they earn from fishing. They consequently wish to be in fishing as they grow up. If they have friends who rely on fishing for income, they do the same. That's why most boys aged 17 or 18 stop going to school prematurely. They start fishing at the age of 15 and because of the money they earn, they forget about school after 3 years of fishing. They also start taking beer at the ages of 15 or 16 and eventually they become addicted. That's the challenge facing the community. Some of them are not involved in fishing, they do piece works as one way of dealing with the problems they face. FGD, fish trader

Young boys were also able to experience this first-hand by undertaking small jobs for the boat crews such as scooping water from the boat or helping with the nets before or after fishing expeditions. These roles were undertaken by boys as young as eight and they would be given a small amount of fish or money for their labour.

3.3. Sex, power and marginalisation

Boat crew members were paid daily in cash, or sometimes fish that they could then trade. The amount of payment was dependent on the size of the catch and their position in the boat and could be equivalent to upwards of \$15 per day. This was considered substantial; no other local livelihood activity provided such relatively large sums of money daily.

With this money came power. Many participants (both male and female) discussed how access to this money could shape men's behaviour. Men felt that this daily money made them desirable sexual partners in a context of food insecurity, particularly for poorer women within the village. They discussed how they perceived women would seek them out for either money or fish to help secure their financial position:

"We meet women when we are back from fishing, after resting we walk around the village that is when we meet them ... we meet women whom we gave fish at the boat, they don't resist us [having sex] because they know we will give them more fish the following day" FGD, Boat crew member – head of boat

At times, men did describe aggressive and predatory behaviour to women assuming more hyper-masculine roles, particularly when contrasted with men working in farming. Below is an example of the way boat crew members would talk about women:

A woman is a man's bag, and is likely to face maternal problems; a man is there just to pump in semen into women [All laughing], women go to hospitals to deliver babies then wash napkins, that is why they are in the fore front suggesting the use of contraception after sensing danger of getting another pregnancy, "Hey should I be pumped in daily?" [All laughing] FGD, Boat crew member – head of boat

In the communities, boat crew members openly paid for sex at the bars. This was in contrast to the boat owners, who were seen as more respectable members of the communities. Their engagement in transactional sex with women in the villages was reported by other men but conducted in much more clandestine ways. There was a strong perception within the community that boat crew members were aggressive,

drank too much and did not save their money. The ready availability of money fuelled a culture of spending rather than saving and the community members viewed the boat crew members as squandering money on sex workers or alcohol and not using it in their homes. As many participants noted, while there was sometimes a readily available supply of money, this was influenced by the fluctuations in fish catches and boat crew members could quickly struggle to find money.

Boat crew members were highly mobile and travelled both to access work, as well as to undertake fishing expeditions. Men could be away from home for weeks, and sometimes months, at a time on fishing expeditions. Being away from home for long periods of time provided men with the opportunity to have sexual partners in addition to their wives and girlfriends.

Fishermen have opportunities with women, because the more money they have the less women resist their advances [laughter], when we go to catch fish, we find beautiful women whom we propose while camped there for several days, these women know that fishermen make more money, yes. FGD, boat crew member

The distances boat crew members travelled depended on the availability of fish. If fish were difficult to find, the boat crews would travel longer distances to where there had been reports of higher fish catches. They would land the boat and sell the catch on the fish landing sites closest to the fishing expedition. This could be up to 100 km away from their home village. It was widely accepted by both male and female participants that men had a biological need for sex, and that having additional sexual partners while boat crew members were away from home was a natural way of fulfilling this need. In the quote below a participant who worked in a bar in Village 1 describes this:

P1: fishermen from other fishing villages come here to camp for more than a month when there are high fish catches, and they can't live this whole period without having sex FGD, male bar tender

When boat crews travelled, they often encountered difficult living situations, sleeping either in cramped rented accommodation known as "rest houses" – if they were available – or on the beach under fish drying racks otherwise. During the rainy season this was particularly difficult, as boat crews only had plastic bags or tarpaulin to protect them from heavy rain and winds during storms. As fishing often took place at night, boat crew members had erratic sleep patterns as they would have to sleep on the beach, often in the daylight hours.

These difficult living situations influenced their decisions to pay for sex. Two of the boat crew members we interviewed discussed having sex with sex workers after fishing to access shelter. Paying for sex, both with local women as well as bar workers, may have additionally been a way for boat crew members to seek physical comfort. This was articulated in the quote below:

I also want to add on that, even those couples who trust each other, some men say they cannot work without having an affair with a woman, they say "mankhwala atchito" [meaning a form of medication for your job], and because they sleep in the open space where they catch cold at night and this probably encourages them to find women who they sleep with while there, besides when a man is away from his wife, he is free to indulge in other behaviours FGD, male fish trade.

In these living situations boat crew members often drank alcohol to excess. During our periods of observation, we frequently witnessed fishermen drinking from early in the morning once they had landed their boats. Boat crew members had many different options for drinking; these included in formal bars where bottled and fermented beer were sold, and informal bars where women brewed beer for men to buy.

We witnessed several instances of violence between men in bars as well as in residential areas. Boat crew members described how violence occurred due to excessive alcohol consumption:

That is beer, because at that time they don't know what they are doing yes, normal persons cannot quarrel on petty issues, this all starts because of the influence of beer, they are small issues which could end by contact and dialogue, even salt starts quarrels, when one is asking for salt and the other is delaying passing on to the other eventually a slap comes." IDI, boat crew member

When questioned about whether they wanted their children to follow them into the fishing industry, none of the men who worked as boat crew members said they wanted this for their sons. In the two quotes below boat crew members articulate why they felt this way.

Fishing work is one of the most difficult jobs, we work throughout the night until dawn, we can work without any sleep for a whole month, yes that is how painful it is. IDI, siginala/boat crew member

[...] the way I see it fishing is strenuous, and you cannot say my children should follow my footsteps no, fishing is like slavery

[...] is it is not a steady job, fishing is determined by seasonality, you cannot rely on last month's catches and say this month I am going to catch the same, no, nothing of that sort happens, when God blesses us, we are happy that very day and we should wait for tomorrow, fishermen have happy times, yes, but the majority of the time we worry IDI, boat crew member

3.4. HIV infection and boat crew members

In the villages, fishermen were viewed as a group who were most at risk of HIV infection, as well as being responsible for spreading the disease to others. During the focus group discussions, community members working outside the fishing industry singled out younger boat crew members, who were perceived to move in and out of the village, drinking heavily and paying women for sex, as driving HIV transmission.

In the quote below, this was articulated by a woman living in the village:

What happens is that the fishermen are not stable if they hear that high fish catches are being done in Salima it means that they will go to Salima and when they hear about Makanjira it means that they will also go to Makanjira where they also find other women which they do not know their sero status, they do sex with them and then they come here where they transmit the disease to their wives and other women, that is the meaning of fishing from one area to the other. Wherever men go they do sex with other women when they come back, they do sex with their wives and other women. Female farmer and trader

When we asked men working in the fishing industry what risks they faced, their responses included theft, bus journeys between fishing sites or trading centres, drowning and illness. Boat crew members saw drowning as the most serious risk they faced. The types of illnesses men were most concerned about included malaria, diarrhoea and cholera, but HIV was discussed less often. When men were probed directly, some, but not all younger boat crew members, discussed HIV risk in relation to their lives, identifying the types of women that they felt put them at risk. In the quote below, a boat crew member talks about the way money and alcohol can drive the risk of HIV in their lives:

The other factor in HIV being in the community is the frequency at which money is earned. You are being dictated by money whenever you have it. As you travel to take beer somewhere, you may not remember to carry a condom with you. Under the influence of alcohol, you sleep with a woman at the bar without a condom and you end up contracting the virus [HIV]. FGD, boat crew member and fish trader

But overall, most boat crew members only discussed individual HIV risk once we probed them directly, listing more immediate dangers such as drowning and car travel first. Younger men described using condoms during sexual exchanges with sex workers but not in their stable relationships. However, during interviews with sex workers, they stated

fishermen rarely wanted to use condoms, their perception of younger fishermen was that they could become violent if sex workers refused to have sex without condoms.

4. Discussion

We explicitly drew on intersectionality theory to interrogate the complex social relations and broader environment that shaped both the power and marginalisation experienced by younger boat crew members and move beyond a simplistic gender binary approach which equates all men with power and women as always vulnerable. This descriptive study used qualitative research methods and prolonged engagement to provide an in-depth exploration of the ways men's social position shaped their experiences of power, privilege and marginalisation which drove health inequities including HIV risk. We found that the roles that men occupied in the fishing industry depended on several factors including their age, relationships, socio-economic position and the amount of experience they had in the industry. In turn, these roles shaped their lives, including exposure to occupational risks, mobility, living conditions, economic remuneration, engagement in education and social standing within the community. In this context, younger poorer men occupied roles with the highest levels of occupational risk, greatest mobility, worst living conditions and the least economic remuneration. At times, they also experienced violent discipline from older more powerful men. These factors in turn often influenced their alcohol consumption and sexual behaviour, which in turn shaped their vulnerability to HIV.

Intersectionality theory draws out the ways social categories interact with and co-constitute one another to create unique social locations that vary across time and place (Hankivsky, 2014). Young boat crew's health and well-being were shaped by the social location that they occupied. In rural Malawi, these men worked in a context of extreme scarcity, and families frequently struggled with food insecurity. The pay and fish they received for their work gave them privilege and power particularly over some younger poorer women and men exploited this power to engage in transactional sex. However, fishing often drew out boys from poorer families, who would drop out of school limiting their working opportunities to fishing.

Malawi is a former British colony and one of the poorest countries in the world with very limited ability to provide social protections. Malawi's economy relies on agricultural goods, which are sold in an unequal economic system. Colonialism, structural adjustment policies and unequal trading systems have shaped – and often hindered – Malawi's economic development. Therefore, the context in which young men were situated give them very few livelihood options beyond fishing, which in turn is becoming increasingly pressured.

In Lake Malawi, fish stocks have been falling. This is due to both changes in the climate and overexploitation of stocks. This has been exacerbated by poor enforcement of fishing regulations, which have failed to protect the remaining stock. The increased pressure on fish stocks meant that boat crews faced more competition and travelled further to access fish. This in turn led to further time away from their homes, living and working in difficult circumstances and paying for sex. Therefore, the lack of enforcement of fishing regulation further shaped young men's lives and HIV risk.

Dominant forms of masculinity in some contexts equate "being a man" with sexual conquest and risk taking with implications for HIV risk (Greig et al., 2008). How different groups and men construct masculinity is highly dependent on the position that different men occupy within changing and context specific social structures. Men who are socially-and economically-marginalised often compensate for their status by adopting hyper- or more-extreme forms of masculine identities (Ragnarsson et al., 2010). Our findings demonstrate that boat crew members who were often socially marginalised engaged in transactional sex as a way of demonstrating power over women, a finding corroborated by other researchers (Seeley and Allison, 2005).

Research exploring transactional sex in fishing communities in Southern and Eastern Africa has had a less explicit focus on younger boat crew members experiences, and work has focused more on women's motivations and decisions for engaging in transactional sex than mens' (Béné and Merten, 2008; Mojola, 2011). This female focus is reflected within the broader literature on transactional sex. Broadly speaking, our work reflects the work of Kwena from fishing communities around Lake Victoria in Kenya (Kwena et al., 2010). Their study found high levels of competition for fish was a key driver for female fish traders to engage in transactional sex with fishermen. They also describe how sex in these exchanges was often hurried and with little time for women to become physiologically prepared. The hurried nature of the exchanges also meant that condoms were rarely used. Finally, they found that both men and women engaged in a web of relationships and this placed both men and women at an increased risk of HIV. Some of the boat crew members in our study also discussed the hurried and often clandestine nature of the exchanges. Seeley and Allison describe how the migratory nature of fishing means that when young men are away from home, the social structures and hierarchies that guide sexual norms are no longer observed (Seeley and Allison, 2005). Reviewing the literature on fishing communities and HIV risk, Kissling et al. (2005) discuss how social ties on fishing beaches are based on economic relationships. These interactions provide unrestricted opportunities that determine sexual and behaviour norms (Kissling et al., 2005). We found that the high levels of migration and travel required for fishing provided men with an opportunity to engage in transactional sex without their wives and girlfriends finding out.

Our paper makes an important contribution to the literature on HIV risk by providing an in-depth picture of young fishermen's lives. By drawing out the complex ways power and marginalisation shaped boat crew members lives we move beyond seeing fishermen as a homogenous group. By drawing on an intersectional approach we also provide a nuanced explanation of why younger men engaged in transactional sex. While at times control and sexual conquest were important, at other times they were simply seeking comfort from the harsh realities of their working conditions.

A weakness of our study is we primarily focused on young men; although we have brought in perspectives of older men and different women too to understand the ways in which gender power relationships shape interactions and room for manoeuvre. Papers which focus on women's experience, vulnerability, agency and HIV risk have been published elsewhere. We also did not include policy makers and practitioners' perspectives; this could be an important follow-on study.

In our study, intersectionality allowed us to critically analyse the different axes of power, privilege and marginalisation that young male boat crew members experienced in their lives. Moving beyond simplistic binary approaches that see fishermen working on Lake Malawi as a homogenous group intersectional analysis revealed a diversity of men, where age, socio-economic position, and age all shaped their lives in complex, nuanced and changing ways. Intersectionality also helped to render visible the social location that these young men occupied highlighting how hierarchies of power and oppression shaped their lives. The broader structural environment was shaped by policies and conditions at the global, national and local level. These conditions shaped and limited the alternative options different groups of men had and left them vulnerable to HIV.

HIV incidence rates are slowly falling across sub-Saharan Africa (UNAIDS, 2015) and as the HIV epidemic enters a new stage, targeting and developing strategies to address the realities of high risk-groups – such as found in fishing communities – will become more important. This research demonstrates a clear need to develop and evaluate HIV prevention interventions for fishing communities that will include finding ways to change the broader structural environment that shapes these men's marginalisation and in turn shapes vulnerabilities for women too. Beyond health interventions that recognise and respond to how power and marginalisation shapes and limits different people's

room for manoeuvre, there is need for intersectoral action. Our analysis shows how improve living conditions, for example building rest houses including water and sanitation facilities, ensuring boats were well maintained and safety equipment such as life jackets used, enforcing legislation to protect fish stocks, providing educational opportunities beyond fishing could all be important interventions. Ultimately, Malawi continues to be one of the poorest countries in the world and addressing the broader social and economic injustices that perpetuate this situation is vital.

Declaration of competing interest

None.

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Appendix A. Supplementary data

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