DETERMINANTS OF LINKAGE TO HIV CARE AND TREATMENT AMONG MEN WHO HAVE SEX WITH MEN (MSM) IN KISUMU COUNTY, KENYA

BY

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DECLARATION

This thesis is my original work and has not been presented to any other University for a degree or any other award.

Signature …… Date……...

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Supervisors' Approval

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DEDICATION

Dad, thank you for being the guardian angel, my prop and stay. Mama, your unconditional love, prayers and care meant everything to me. My heart can't thank you enough for the sacrifices you made, giving me such strong foundation and preparing me for the future.

To my husband, Thomas Milongo, you have been a strong pillar in my Life and forever grateful and thank God for allowing me to enjoy the joy and sincere guidance that a husband provides. To my beloved children, Maisha, Mapenzi, Malkia and Mali, who have taught me humility, true love, patience and gratitude of the little things in our lives.

To my sisters, brothers and in-laws, thank you for standing in the gap and putting me to task to reach the goal of completing this task.

ABSTRACT

HIV remains a global and national public health challenge, with significant impacts on the lives of those affected by the virus. Kisumu County in western Kenya has one of the highest rates of HIV infection in the country. This situation is further exacerbated by the vulnerability of MSM, who often face a disproportionate burden of HIV infection. HIV prevalence among MSM in Kisumu County is higher than the general population, highlighting the urgent need to address this problem. Early and consistent access to HIV care and treatment is paramount to reducing HIV-related morbidity and mortality, and is also critical to reducing HIV transmission in the community. However, significant gaps remain in our understanding of the factors that promote or impede linkage to care and treatment among MSM in this region. Therefore, this study examined the determinants of the linkage to HIV care and treatment among MSM in Kisumu County, Kenya. The specific objectives of the study were; to determine the (1) individual factors, (2) interpersonal factors, (3) the socio-cultural factors, and (4) the institutional factors influencing linkage to HIV care and treatment among MSM in Kisumu County, Kenya. A descriptive cross-sectional study design was employed. The questionnaire for quantitative was administered to 400 respondents who consented and 11 KIIs were also conducted. Quantitative data was analysed with the aid SPSS version 21. Frequencies, means and percentages were used to analyse socio-demographic characteristics of study population and to determine prevalence of LARC. Chi-square test was used to check for association while logistic regression model was used to establish the strength of the association at 95% CI. Qualitative data was analysed using thematic analysis approach in coding and development of the emerging themes using NVivo software. From the analysis, the mean age of respondents was 26.22 with standard deviation of 6.58, majority 232(58.0%) attained secondary education whereas 190 (47.4%) of MSM were informally employed. The individual determinants associated with not accessing HIV care and treatment were religion (OR=0.3;95%CI,0.13-0.72; p=0.007), primary education (OR=0.5;95%CI,0.23-0.97; p=0.040), earns less monthly (OR=0.1;95%CI,0.01-0.26; p=0.001). Additionally, the factors associated with accessing HIV care and treatment included: The interpersonal factors disclosing sexual orientation to family/friends (OR=2.3;95%CI,1.29-4.26; p=0.005), disclosing sexual orientation to health care provider (OR=4.4;95%CI,2.35-8.37; p<0.0001) discrimination by family (OR=10;95%CI,3.45-30.12; p<0.0001); The socio-cultural factors were MSM who felt community members were uncomfortable with them (OR=2.4;95%CI,1.11-5.01; p=0.027), MSM felt they would lose respect (OR=2.5;95%CI,1.13-5.31; p=0.031); The Institutional factors were MSM who had gone for treatment at health facilities and MSM who were HIV positive (OR=5.9;95%CI,1.67-21.27;p<0.0001), (OR=14.9;95%CI,2.86-5.08; p<0.0001) respectively. MSM believe that government institutions do have conversation with them (OR=70.4;95%CI,9.64-513.74; p<0.0001), MSM who thinks that there are systems that guards them (OR=10.8;95%CI,5.87-19.72; p<0.0001). In conclusion, the findings of the study highlight the need for comprehensive, targeted interventions, including cultural sensitivity training, income support programs, and legal reforms, to enhance healthcare access and reduce disparities within this marginalized community.

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LIST OF ABBREVIATIONS AND ACRONYMS

AIDS	:	Acquired immune deficiency syndrome
FSW	:	Female sex workers
HIV	:	Human immunodeficiency virus
IRC	:	Institutional and Research Committee
JOOTRH	:	Jaramogi Oginga Odinga Teaching and Referal Hospital.
LMIC	:	Low and middle income countries
KII	:	Key informant interview
MSM	:	Men who have sex with men
NACOSTI	:	National Commission for Science Technology and Innovation
NASCOP	:	National AIDS and STI control program
SPSS	:	Statistical Package for Social Sciences
STI	:	Sexually Transmitted Infections
WHO	:	World Health Organization

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Globally, men who have sex with men (MSM) bear a substantial HIV burden (Beyrer et al., 2016), with HIV acquisition risk 28 times greater than in males who only have sex with women (Pereira et al., 2019). In Sub- Saharan Africa the prevalence was 17.81% with 4.94 times higher among MSM than among men in the general population (Hessou et al., 2019). MSM are at higher risk of HIV infection than men in the general population(Hessou et al., 2019). In Kenya, bio-behavioural monitoring studies among MSM in 2010 (the most recent national data available) revealed an HIV prevalence of 18.9%(NASCOP, 2010) whereas the HIV prevalence among males in the general population in Kenya in 2018 was 3.1% (NASCOP, 2020). Despite the prohibition of same sex relationships, MSM are a priority demographic in Kenya's national HIV response(Musyoki et al., 2021). Kisumu County with HIV prevalence 17.5% (AIDS & Programme, 2020) among persons aged 15, was responsible for 6% of Kenya's projected 28,200 human immunodeficiency virus (HIV) -related fatalities in 2018 (Health, Council, AIDS, & Programme, 2018). However, little information is known about the prevalence of HIV infection among MSN in Kisumu county.

Men who have sex with men (MSM) are affected by several factors while seeking medical services compared to other men of reproductive age (Pillay, 2020). They have the least access to prevention, care, and treatment services because their behaviors are often stigmatized, and even criminalized (National AIDS and STI Control Programme, 2016). The risk for HIV transmission among this population has therefore been elevated through behavior biological risks of HIV transmission during anal sex, inconsistent condom use, genital sexually transmitted infections (STI) and mental health (Baggaley et al., 2010). Further, the coverage of existing HIV prevention and care

interventions for MSM is less than 10% globally with a far lower coverage in most low- and middle-income countries (Bien-Gund, 2019). Therefore, the current content and coverage of HIV prevention programs, however, is insufficient in addressing HIV epidemics among MSM (Sullivan et al., 2012).

Commercial sex is another serious challenge both globally and locally. Findings from transgender survey in united states of America (USA) on family rejection, socioeconomic precarity and exchanging sex for food among young adults highlighted increasing use of sex as a commodity in exchange for financial resources, especially among young MSM (Masa, 2023). This pattern was also consistent in MSM populations across sub-Saharan Africa, Kenya being among (Dramé, Peitzmeier, et al., 2013; Geibel et al., 2012; Merrigan et al., 2011). This is concerning in light of evidence that MSM engaging in transactional sex are at greater risk of HIV infection (Oldenburg, Catherine E and Perez-Brumer, Amaya G and Reisner, Sari L and Mimiaga, 2015).

While MSM have right for association and medical services, government and community laws are the major barriers, especially in African countries. In Kenya for instance, homosexuality is punishable by upto 14 years imprisonment (OWINO, 2021). The law has made it easy for police, neighbours and other refugees to blackmail, harass and kill sex minorities, leading to fear of disclosure and further low uptake of HIV care and treatment in case of infection (Migiro Katy, 2013). A study done in Kisumu, found that a large proportion of MSM in Kisumu had some discomfort (62.7%) when seeking services at a public hospital (Okall et al., 2014).

Despite research on MSM, there is a little information regarding MSM in Kenya, particularly in Kisumu county, and their use of health care. The study therefore investigated the individual, interpersonal, socio cultural, and institutional determinants impacting MSM connection to HIV

care and treatment in Kisumu County. The study's findings were intended to aid in policy formation and implementation, as well as to help lower the county's and Kenya's overall HIV infection rate.

1.2 Statement of the Problem

HIV remains a global and national public health challenge, with significant impacts on the lives of those affected by the virus. Among the key populations at high risk for HIV infection, men who have sex with men (MSM) are particularly at risk due to a complex interplay of individual, interpersonal, social-cultural, and structural factors. Kisumu County in western Kenya has one of the highest rates of HIV infection in the country. This situation is further exacerbated by the vulnerability of MSM, who often face a disproportionate burden of HIV infection. HIV prevalence among MSM in Kisumu County is higher than the general population, highlighting the urgent need to address this problem.

Early and consistent access to HIV care and treatment is paramount to reducing HIV-related morbidity and mortality, and is also critical to reducing HIV transmission in the community. Research shows that timely care and continued adherence to antiretroviral therapy (ART) can lead to viral suppression, improve the overall quality of life of people living with HIV, and reduce the spread of the virus. It has been shown that it can be done. However, significant gaps remain in our understanding of the factors that promote or impede linkage to care and treatment among MSM in this region.

MSM face a range of social and structural challenges, including stigma and discrimination, and these challenges often impede access to HIV care and treatment services. Homophobia and discrimination are prevalent both at the community and provider level and can prevent people from accessing health care. Fear of being "outed" as gay can lead to a reluctance to disclose sexual

orientation or seek medical care. As a result, delays in seeking medical care can accelerate the progression of HIV disease and increase the risk of HIV infection.

Other barriers to accessing health services for MSM in Kisumu County are diverse. These barriers include limited knowledge of available services, poverty, geographic isolation, and cultural norms that discourage same-sex relationships. Further exacerbating the problem is the region's lack of culturally sensitive and MSM-friendly health facilities. Therefore, it is important to understand the unique barriers faced by MSM in Kisumu County to develop customized interventions.

Although there are many studies investigating HIV among MSM, there is a lack of studies specific to Kisumu County, Kenya. This research gap hinders the development of effective interventions to improve linkages to HIV care and treatment among MSM in this region. Therefore, this study examined the determinants of the linkage to HIV care and treatment among MSM in Kisumu County, Kenya, including personal, interpersonal, social, cultural, and institutional factors. The findings of the study were intended to contribute to the existing body of knowledge on HIV and to support the development of targeted interventions, health policies, and community-based programs aimed at improving the overall health and well-being of MSM in the region. Ultimately, we aim to contribute to global efforts to end the HIV epidemic by addressing the unique challenges faced by vulnerable populations such as MSM.

1.3 Objectives of the Study Study Objectives

1.3.1 Main objective

To investigate the determinants of linkage to HIV care and treatment among Men Who Have Sex With Men (MSM) in Kisumu County, Kenya.

1.3.2 Specific objectives

1. To determine the individual factors influencing linkage to HIV care and treatment among MSM in Kisumu County, Kenya.
2. To determine the relationships or interpersonal factors influencing linkage to HIV care and treatment among MSM in Kisumu County, Kenya.
3. To determine the socio-cultural factors influencing linkage to HIV care and treatment among MSM in Kisumu County, Kenya.
4. To determine the Institutional factors influencing linkage to HIV care and treatment among MSM in Kisumu County, Kenya.

1.4 Research Questions

1. What were the individual factors influencing linkage to HIV care and treatment among MSM in Kisumu County, Kenya?

2. What were interpersonal factors influencing linkage to HIV care and treatment among MSM in Kisumu County, Kenya?

3. What were the socio-cultural factors influencing linkage to HIV care and treatment among MSM in Kisumu County, Kenya?

4. What are the the Institutional factors influencing linkage to HIV care and treatment among MSM in Kisumu County, Kenya?

1.5 Justification of the Study

By contrast, in sub-Saharan Africa, where the most devastating HIV epidemics have been recorded, MSM have been largely overlooked in HIV research and are absent from most national

and regional public health responses. To decrease HIV transmission, MSMs urgently need targeted HIV reduction prevention information and services. This study comes in handy to provide an insight into the various factors that influence linkage to HIV care and treatment in MSM in Kisumu County, Kenya.

This study will be significant to stakeholders in the health sector including development partners; Ministry of Health, National AIDS Control Council, National HIV/STI Control Program, by providing an opportunity to be able to include other factors that contribute to HIV care and treatment among MSMs in Kenya. The findings of this study will guide in policy formulation and national strategies that will lead to effective programming.

The study will highlight other important relationships that require further research; this would be in the areas of access, utilization and availability of comprehensive health services for MSMs in developing countries. The results of this study will also be invaluable to researchers and scholars, as it will form a basis for further research. The study will be a source of reference for future researchers on other related topics.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter seeks to give an extensive review on available, related literature of the theoretical and empirical literature to the problem being investigated. Literature review involves locating, reading and evaluating of previous studies, observations and opinions related to the planned studies. Accordingly, this chapter captures the major issues relating to factors influencing linkage to HIV care and treatment in men who have sex with men.

2.2 HIV burden among MSM

MSM are 19 times more likely to be living with HIV than the general population in low- and middle-income countries, but only one in 10 MSM worldwide has access to HIV services. This is largely attributed to the fact that stigma, discrimination, and laws criminalizing sex between men undermine access to HIV/AIDS and other health services for MSM (Babel, Wang, Alessi, Raymond, & Wei, 2021).

Men who have sex with men, prisoners, sex workers and their clients, and injecting drug users contribute a third of all new infections in Kenya and have the highest risk of contracting and transmitting HIV (National AIDS and STI Control Programme, 2016). With growing evidence that they are key drivers of the national HIV epidemic- for instance, the high prevalence rates of 29.3% among sex workers, 18.2 % among men who have sex with men, and 18.2 % among injecting drug users-the government has initiated targeted programmed for these sub- populations (National AIDS and STI Control Programme, 2016).

2.2.1 Social- ecological Model

The Socio-ecological model (SEM) was first introduced by Urie Brofenfenbrenner in the 1970's and later formalized as a theory in the 1980's (U Bronfenbrenner, 1989; Urie Bronfenbrenner, 1977, 1986, 2013). This model looks at various interactions of a person and the environment and asserts that, the microsystem closest to the individual contains the strongest influences and includes the interactions and relationships of the immediate surrounding while the second level (mesosystem) looks beyond immediate interactions and includes those individuals one has direct contact with such as work, school, church and neighbourhood. The third level (exosystem) does not directly impact the individual but exerts both negative and positive interactive forces on an individual such as community contexts and social networks. The fourth level is the macrosystem which includes societal, religious, cultural values and influences. Lastly, the chronosystem which includes the influence of policy (Urie Bronfenbrenner, 1986). The SEM model has been adopted by the centers for diseases and prevention in various health promotion endevours. In addition, it has been adopted in the multi level approaches in the areas of public health promotion, violence prevention, education, geriatric preventive health and colacteral cancer prevention to name but a few (*CDC - Social Ecological Model - CRCCP*, n.d.; CDC, 2015; Polit & Beck, 2012).

The socio-ecological model allows the understanding of a multi-faceted and interactive effects of personal and environmental factors to examine a wide breadth of elements that influence and contribute to an individual's behavior by looking at the relationships and interaction of the individual and others, evaluation of the Institutional systems, programming and policy and its influence to an individual (U Bronfenbrenner, 1989; Urie Bronfenbrenner, 2013; Kilanowski, 2017). These highlights the opportunities for rigorous researches in comprehensive systems that strengthen relationships through networking, sharing of information and enhancing the leadership

and legislation that develop best practices for a wholesome improvement of an individual (Kilanowski, 2017). This theory is different from other behavioral theories that overly generalize behavior or actions without taking into consideration specific factors such as culture, nationality, gender, ethnicity, age, geographic location, legal norms or customs, religion, socio-economic status etc.

One limitation of this model is that it does not help understand the social factors of development or the social rationale of why the various Institutions are not complacent with the study issue under investigation in this case MSM and therefore the problems and explanations tip towards the psychology and effects of an individual and not what the MSM practice may mean to the opposing Institutions and the reasons as to why it is opposed in the first place (U Bronfenbrenner, 1989; Urie Bronfenbrenner, 2013).

2.3 Individual factors influencing MSM access to HIV care and treatment

Individual level factors have influence on HIV treatment adherence. Valenzuela-Oré (2023) investigated factors influencing adherence to anti-retroviral therapy in amazonian indigenous people living with HIV/AIDS, in Peru. The study's multivariate logistic regression revealed that occupation (aPR: 1.86; 95%CI 1.15-3.02), economic income (aPR: 0.64; 95%CI 0.41-0.99), and unfavourable antiretroviral treatment reactions (aPR: 0.36; 95%CI 0.18-0.70) were associated to medication adherence. Another studies found factors such as one’s socio-economic status for example those who are employed (Vu et al., 2013), those who openly identify as gay or homosexual compared to straight or bisexual individuals (T. G.M. Sandfort et al., 2008), knowing someone living with HIV or being exposed to HIV programs, having a steady male partner, and

being non-muslim (Lorente et al., 2012) positively influenced reception of HIV/ AIDS prevention services including testing among MSM.

Other studies have found several factors impacts negatively HIV prevention and treatment services. According to Babel et al. (2021) scoping review study on Stigma, HIV Risk, and Access to HIV Prevention and Treatment Services Among Men Who have Sex with Men (MSM) in the United States, stigma was one of the strongest barriers to prevention and treatment of HIV among both HIV positive and negative MSM. The study further highlighted perceived health care discrimination, Color and intersexual stigma affected negatively PrEP awareness and uptake, particularly among HIV-negative black MSM. Also, unprotected anal sex is common place, knowledge, low risk perception and access to appropriate risk prevention measures are inadequate, and that, in some contexts, many MSM engage in transactional sex (Knox et al., 2011; Nel et al., 2013).

Religion is another factor which influence HIV care and treatment. According to a qualitative study on the influence of religion and spirituality(R/S) on HIV prevention among black and Latino men who have sex with men in New York City (Drumhiller, 2018), 45% of the interviewed noted that R/S had personal influence on HIV intervention. The main themes highlighted were positive influence of R/S on decision making and self-respect, altruism, stigma and judgement by religious communities and belief in a higher power.

The socioeconomic problems associated with poverty including homelessness and unreliable transportation; limited or no access to high quality health care; the exchange of sex for drugs, money, or other needs; and higher levels of substance use—often lead directly or indirectly to increased HIV risk and not being able to access HIV care services among gay men and other MSM

(Knox, 2017). Other self- reported reasons for not receiving the HIV prevention services in South Africa included low risk perceptions and perceived health care stigma (Nel et al., 2013).

While earlier research has looked at several individual variables influencing HIV treatment adherence and service utilisation among MSM in various areas, the existing studies have mostly focused on distinct contexts and demographics. As these studies have shed light on various influential factors such as occupation, economic income, sexual orientation, and religion, it is important to note that the importance and prevalence of these determinants may vary in the unique socio-cultural and healthcare landscape of Kisumu County. As a result, there is a need for research that goes further into the local dynamics and individual-level determinants that directly influence MSM access to HIV care and treatment in this specific location, filling a significant vacuum in the present literature.

2.4 Interpersonal factors influencing MSM access to HIV care and treatment

Interpersonal attributes such as effect disclosure of the personality to family and friends as well as health care providers, and discrimination experienced influences MSM decision to seek HIV care and Treatment. A qualitative research conducted in Malawi emphasised the need of MSM disclosing their sexual orientation and or preferences while seeking care so that healthcare practitioners may better anticipate their care requirements (Kapanda, 2019). They stated that there should be more MSM-centered and friendly health services available, as well as educated practitioners who are non-judgmental, non-discriminatory, and respect people's right to health care access.

Most MSM who get a positive diagnosis rarely disclose their status to anyone thereby receiving little to no social support for remaining in care (Arnold et al., 2017). A study done in Tanzania

revealed risk networks associated with risk behaviours and lack of social support as the key barriers to health care services access by MSN (Kigombola et al., 2023).

Disclosure of HIV serostatus is another dilemma experienced by MSM. The findings from a study by Arnold in 2017 revealed that, although a few men had widely disclosed and therefore had extraordinary levels of social support from friends, family and formal support groups for living well with HIV, others were coping with their HIV alone and in relative isolation (Arnold et al., 2017). These men felt it was hard to disclose to family and friends, due to anticipated HIV-related stigma and fear of rejection. Also some did not disclose until they were catastrophically ill and in the hospital. However, for the few who were able to disclose and elicit support from family or friends, the help they were able to access care which impacted their well-being and ability to stay on treatment and in care. Participants who were retained in care and adherent to their treatment regimens attributed their health behaviours to a strong relationship with their doctor, which was characterized by open communication and trust (Arnold et al., 2017). Group-level and peer support activities play a great role in the minority groups health seeking behaviours and provide informational and emotional social support as they discuss matters related to living with HIV, being MSM, and remaining engaged in care and treatment (Geibel et al., 2012). Most MSM emphasise on the need for privacy and confidentiality during their HIV care and treatment processes and do require social support from family, friends and health care providers (Arnold et al., 2017; H. Li et al., 2017).

The literature on interpersonal variables influencing MSM access to HIV care and treatment focuses on the importance of disclosure, social support, and connections with healthcare professionals in determining healthcare-seeking behaviours. It emphasises the difficulties that MSM encounter in disclosing their sexual orientation and HIV status owing to worries of

discrimination and social isolation. Positive social support from friends, family, or healthcare practitioners has been demonstrated to improve healthcare seeking and adherence. However, because these conclusions are based on several research, the particular criteria determining access may differ depending on the targeted location. Future research should address these local variations in order to create specialised techniques to effectively overcome this literature gap.

2.4 Socio-cultural factors influencing MSM access to HIV care and treatment

Socio-cultural factors, such as perceptions and experiences of stigma and discrimination, homophobia and internalized oppression are strong barriers to HIV health services utilization by MSM (King et al., 2020). This lead to increased risk of HIV infection in MSM and lack of accessing HIV prevention services (Sandfort & Knox, 2017). Stigma, violence, detention, and lack of safe social and health resources are widely reported among MSM (Harvey, Keene, & Pachankis, 2021). These factors may play a significant role in increasing the risk of drug use before or during sexual encounters, unprotected incentive or receptive anal sex, multiple sexual partnerships, and inconsistent use of condoms. Stigma associated with acknowledging homosexual or bisexual activity may inhibit many MSM from identifying as such leading to denial of their own risk and alienation from prevention programs that target self-identified gay/bisexual populations (Arreola et al., 2012).

Several obstacles have been identified to claiming human rights among high risk MSM. Most often community members–including neighbours, regular partners/spouse were barriers to claiming rights (Ganju et al., 2016). These findings corroborate earlier research; a study in India documents that fear of rejection by community members/friends is associated with MSMs' limited ability to adopt safer sex behaviours and utilize health services (Harvey et al., 2021). Similarly, MSMs are

unable to exercise their rights in violent relationships with regular partners, as violence compromises their ability to negotiate condom use, particularly if violence is sustained over time (Harvey et al., 2021). Community-based intervention models have been tested and proved to be effective in improving sexual and reproductive health outcomes among MSM in different settings (Wu, 2021).

According to a study by Kigombola et al. (2023) on low engagement of key populations in HIV health services in Tanzania, factors such as discrimination by community and stigma as well as limited involvement of leaders were the key barriers to accessing health services. Other studies also noted HIV seronegative MSM experience HIV stigma vicariously through an intersecting belief that their community attributes shame, disgust, and dishonor to HIV-infected individuals, and that MSM will eventually be (and deserve to be) infected with HIV as a divine punishment for perceived sins (Nelson et al., 2015).

The literatures highlight the pervasiveness of stigma and prejudice, which impedes service utilisation and increases HIV risk among MSM. Furthermore, the role of community members and partners in sustaining barriers to claiming human rights among high-risk MSM in this environment is little researched. Given the complexities of socio-cultural factors and their possible impact on MSM access to HIV care and treatment, more study customised to the unique subtleties of Kisumu County is required to close this gap in the present body of knowledge. This research might be useful in developing tailored interventions to meet the needs and obstacles that MSM confront in this location.

2.5 Institutional factors influencing MSM access to HIV care and treatment

Organizational factors influencing MSM access to HIV care and treatment include health service delivery, gender norms, religious and cultural values. A study done in South Africa among MSM found that perceived health care stigma is one of the reasons why this population do not seek HIV prevention services (Nel et al., 2013). Other studies done in Senegal and Kenya found public exposure of sexual practices and identity to influence HIV testing and other preventive services (Geibel et al., 2010) while others have developed accesing HIV/ AIDS services from experiencing sexual orientation-based victimization at school and the workplace (Dramé, Crawford, et al., 2013; Nel et al., 2013).

Shortage of trained staff in the health facilities to provide support to key population is another problem affecting HIV care and utilization (Kigombola et al., 2023). The study also highlighted inappropriate health messages has one of the barriers to the fight against HIV among sexual minorities. Other studies revealed heteronormative HIV prevention messaging increased misperceptions that penile-anal sex does not pose a risk for HIV transmission and deter MSM from being tested and later be able to seek relevant HIV/ AIDS care and treatment (S. D. Baral et al., 2013; Kalamar et al., 2011).

Evidence from previous research on this subject suggests that health workers have limited skills and knowledge about how to handle MSM, and that many health workers seem to be unwelcome to MSM (Magesa et al., 2014; Risher et al., 2013). A qualitative assessment of health seeking practices among MSM in Malawi found that health providers lacked awareness and self-efficacy to provide care in the face of limited information and political support (Wirtz et al., 2014). In the same study, service providers reported concerns of adverse repercussions related to the provision

of services to MSM, including being labelled as MSM themselves(Wirtz et al., 2014). In addition, research from Kenya suggests that health care providers often lack professional training on specific health needs of MSM and appropriate risk reduction counselling, leaving them inadequately equipped to provide these needed services(Taegtmeyer et al., 2013). Most people in the society are heterosexuals in their orientation. Efforts to decrease risk behaviours and increase HIV care services among MSM must include the assessment of structural factors, especially access to health services, as barriers or facilitators.

Accessing health services and information is undermined by factors such as stigma, discrimination, and laws criminalizing sex among MSM. The high stigma levels globally on sexual relationships between men and its criminalization pose a policy-level challenge when delivering HIV-related services to MSM (Altman et al., 2012). The perceived or experienced stigma and discrimination due to sexual orientation and concerns about confidentiality in the healthcare setting are structural barriers to accessing HIV services, particularly in settings where male-to-male sexual practices are criminalized (Park, 2014) .

While national efforts to prevent further HIV transmission and to provide treatment to all geographical and diverse demographic groups of the population has been scaled up, there has been 'guarded' interest in interventions aimed to prevent HIV spread among men having sex with other men (MSM) in countries. The invisibility of MSM in health surveillance programs and limited funding for targeted, affordable, confidential and MSM-sensitive HIV testing and treatment services pose policy-level barriers to the delivery of HIV-related services in a setting of high HIV prevalence (S. Baral et al., 2013; Beyrer, Sullivan, et al., 2012; Millett, Jeffries IV, et al., 2012; Park et al., 2013; Poteat et al., 2011). Moreover, Rights-constrained environments" in relation to MSM/HIV services and research are environments where there are major challenges in meeting

the needs of MSM based on structural inequalities. These structures may be legal, such as where same-sex behavior is criminalized, or they may be unofficial societal attitudes where same-sex behavior is overtly stigmatized. Prior studies have shown that abuse is perpetrated with impunity due to the recognition that key populations face barriers in seeking justice (Decker et al., 2015) and rights violations are rarely reported due to a sense of futility that perpetrators will be punished, and fears of further violence (Decker et al., 2015).

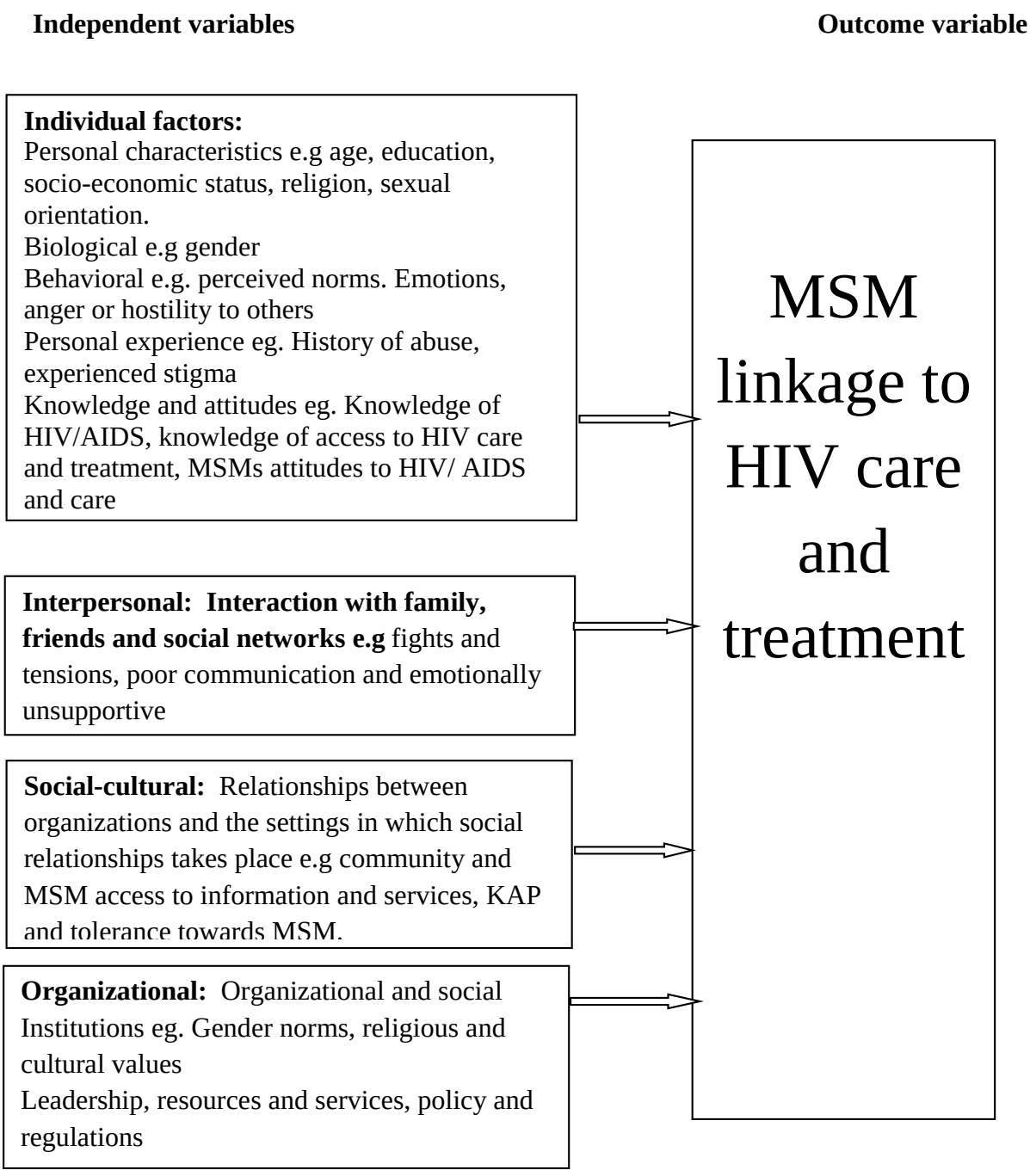
The existing research emphasises the need of addressing issues such as perceived healthcare stigma, poor provider training, and heteronormative HIV prevention messages, all of which might discourage MSM from seeking and obtaining effective HIV/AIDS care and treatment. Furthermore, the research emphasises the structural problems provided by high levels of stigma, discrimination, and criminalization of same-sex relationships, all of which generate major policy-level hurdles to providing HIV-related services to MSM. These findings highlight the critical need for more study into these institutional variables, particularly in the setting of Kisumu County, Kenya, where they may emerge differently and necessitate specialised interventions to increase MSM access to HIV care and treatment.

2.6 Conceptual Framework

The independent variables that may influence MSM access to HIV care and treatment may include: individual characteristic for example personal, biological, behavioral, personal experience, knowledge and attitudes; interpersonal characteristics for example interaction with family, friends and social networks; community characteristics for example relationships between organizations and the settings in which social relationships takes place; Organizational and social Institutions characteristics for example gender norms, religious and cultural values. Lastly, policy/

enabling environments for example leadership, resources and services, policy and regulations. See figure 2.2 below

Figure 2. 1: Conceptual Framework



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

(Babel et al., 2021)This chapter describes the methods used to gather information on the area of the study. It discusses and describes the data collection instruments, data collection procedures, sampling, data gathering and analysis of the limitation of the method used. Research methodology is the approach by which the meaning of data is extracted and is a continuous process. The research methodology gives the direction to follow to get answers to issues that are of concern. Research is usually designed to handle a problem, something that needs describing, explaining or improving, or about which information is needed so that future occurrences can be predicted and policy decided.

3.2 Study Area

Kisumu County situated in western is one of the 47 counties in Kenya. According to 2019 census, the population of the county was 1,155,574 consisting of 560,942 males and 594,609 females and 23 Intersex, which is projected to increase to 1,290,016 in 2025 and 1,329,805 in 2027 respectively (KNBS,2019). The county as the second highest number of MSM in the country; 1,567 (95%CI = 1,480 to 1,665) after Kiambu (Emmanuel et al., 2020). The county boarders Siaya County to the west, Vihiga County to the North, Nandi County to the North East, Nyamira County and Homa Bay County to South West. The County has annual rainfall that ranges between 1200-1300mm. Kisumu County is warm throughtout the year with a mean annual temperature of 23ºC. Administratively, Kisumu is divided in seven sub- counties (Kisumu West, Kisumu East, Kisumu Central, Seme, Muhoroni, Nyando and Nyakach) and 35 wards. Kisumu County has a shoreline

on Lake Victoria, occupying northern, western and a part of the southern shores of the Winam Gulf. The major economic activities are fishing, sugarcane and rice farming.

3.3 Study Design

A descriptive cross sectional study design (Cathain et al., 2010) was adopted for the study in which qualitative and quantitative data was collected. A mixed methods study design was adopted in the study concurrently which ensured data enrichment, instrument and data reliability and validity and to test the consistency of the findings and to enrich the findings from one methodology with the other (Zheng, 2015)

3.4 Study Variables

The independent variables were individual, interpersonal, socio-cultural and institutional factors while dependent variables were linkage to HIV care and treatment among MSM.

3.5 Study Population

The study population was MSM living in Kisumu County totaling to 3200 MSM (LVCT, 2019). While the male population stands at 694,000 (KNBS, 2019)

3.6 Sampling design

3.6.1 Sample size determination

For MSM, the sample size was determined using (Yamane, 1967:886) formula,

$$n = N/1+N\ell^2$$

where n= sample size, N= population of study, ℓ= margin of error

Given that N=3200, and ℓ=0.05

This gives: **n** = 3200/{1+(3200 x 0.05^2)} =355.5

=356 MSM

10% was added to the value obtained from the formula to cater for the non-response and incompleteness. Therefore, the minimum sample size target for the quantitative data of the study was:

= 356 + (10/100)*356

= 392 MSM

For the qualitative study, eleven health care providers working in comprehensive care clinics in public health facilities and Non- Governmental Organizations were interviewed.

3.6.2 Sampling procedures

Due to sensitive nature of the study the participants, the participants were recruited using snowball non-probability sampling technique that utilizes a peer based recruitment and an approach that studies hidden populations (Heckathorn, 1997). This will be done through existing community contacts and community-based organizations serving MSM in Kisumu.

Purposive sampling was used to recruit health care workers providing services to the MSM population. 11 key informants were interviewed [1 health care provider offering HIV/ AIDS care in the public health facilities in Kisumu town (n=7) and providers offering this service in Non-Governmental Organizations within Kisumu (n=4)].

3.7 Inclusion and exclusion criteria

3.7.1 Inclusion Criteria

1. Men who have sex with Men (MSM).
2. Those MSM's who consent to the study.
3. Health care providers in Comprehensive care clinics in Kisumu County.

3.7.2 Exclusion criteria

1. The MSM who are non- residents of Kisumu County but have partners in Kisumu County.
2. Those MSM's who have resided in Kisumu for less than 6 months.

3.8 Data Collection tools

Structured questionnaire was used to collect data from MSMs. Both qualitative and quantitative data will be collected. The structured was divided into sections and written in English. Both qualitative and quantitative data was collected.

Key informant interview: Due to the sensitive nature of the subject, KIIs were conducted on health care providers to gain more insight on factors influencing linkage to HIV care and treatment among MSM in Kisumu County.

3.9 Validity and Reliability of data collection tools

3.9.1 Validity

A validity test is the degree to which a test measures what it is supposed to measure (Saunders, Lewis and Thornhill, 2007). Sainders et. al (2007) further notes that expert judgment can also be used to test content validity and so is literature survey. As such, external audit validity was employed by the researcher, in which experts in the field verified the validity of the questionnaire

and KII interview guide, which were used to measure both quantitative and qualitative data. Because many research tools were employed to better comprehend the content of the tools, data triangulation validity was also used. The validity of the research tools employed in this study, which included questionnaires, interview schedules, and focused group discussion schedules, was obtained by ensuring that the content of the research instruments corresponded with the study goals.

3.9.2 Reliability

Reliability is a measure of the degree to which a research instrument yields same findings after it is administered many times (Orodho, 2003). The study used split half method to ensure reliability. This method of assessing reliability of data involves administering the instrument to the participants once and then splitting the questionnaire items into two (Mugenda, 2003). The scores obtained in the first and the second halves were correlated to establish the extent to which the content of the questionnaires were consistent in eliciting the same responses. After correlation, ambiguous questions were removed and moderations done. To compare the results of the two halves in terms of reliability, Spearman's correlated product moment formula was used to calculate the correlation coefficient to determine the reliability of the questionnaire content in achieving uniformity. shop. The Spearman correlation coefficient $r = 0.860$ was found to be significant at the $\alpha = 0.05$ level ($P = 0.031$).

3.9.3 Pretesting of data collection tools

The data collection tools were piloted in Uasin Ngishu District, where 10% (40) of the questionnaires were administered. The results of the pilot study were used to improve data collection tools before conducting the actual study. Pretest sites were not included in the study.

3.10 Data Analysis and Presentation

Data was coded, cleaned, checked for completeness and entered in SPSS version 26 for management. Descriptive statistics like socio-demographic details was analysed using means, percentages, frequencies and standard deviation. For inferential statistics, Chi-square was used to establish association between dependent and independent variables. Logistic regression was used to establish the extent at which the independent variables influences the odds of one seeking heath care services. Confidence interval was set at 95%. Qualitative approaches were used for the KII and analysis done using the NVivo software where thematic analysis in coding and development of the emerging themes was done.

3.11 Ethical consideration

Ethics approval was sought from Jaramogi Oginga Odinga Teaching and Referral Hospital Institutional and Research Committee (JOOTRH IRC). Permission to carry out research was obtained from Maseno University School of Graduate studies and Nacosti. Written consent was obtained from all respondents before participating in the study. Confidentiality, anonymity and privacy was maintained in the study. Due care was taken to ensure that all those who accept to participate in the study do so voluntarily.

CHAPTER FOUR

RESULTS AND FINDINGS

4.1 Introduction

The chapter presents the results of socio demographic characteristics analysis and analyzed outcomes based on the objectives of the study such as to determine the individual factors influencing linkage to HIV care and treatment among MSM in Kisumu, determine the relationships or interpersonal factors influencing linkage to HIV care and treatment among MSM in Kisumu, determine socio-cultural factors influencing linkage to HIV care and treatment among MSM in Kisumu, determine the Institutional factors influencing linkage to HIV care and treatment among MSM in Kisumu.

The data, both quantitative and qualitative analyzed were collected between April to August 2021. 11 key informants were interviewed and Questionnaires were administered to 400 MSM individuals who agreed to participate, supposing the minimum target of 392. This represented over 100% response rate, which was good for the study a large sample increases precision and generalizability.

4.2 Socio-demographic Characteristics of study participants

About 56(14.0%) of the MSM were married/partnered. Majority 296(74.0%) of the MSM were single /no partner, while the mean age of MSM were 26.22 with standard deviation of 6.58, majority 150(37.5%) of MSM were falling in age category 23-37 years old, majority of MSM 232(58.0%) attained secondary education whereas 190(47.4%) of MSM were informally employed and 268(74.2%) of the MSM had monthly income of 1000KSh. to 10000Ksh per month (Table 4.1).

Table 4. 1: Background Information of the Study Participants

Variables (N=400)	n (%)	**Variables (N=400)**	n (%)
Marital Status		**Education Level**	
Married/Partnered	56(14.0)	College/University	121(30.3)
Single/no partner	296(74.0)	Primary	47(11.7)
Single/with partner	39(9.8)	Secondary	232(58.0)
Widowed/Divorced	9(2.2)	**Occupation**	
Age Category		Formal Employment	17(4.3)
Mean (SD)=26.22(6.58)		Informal Employment	190(47.4)
18-22 years	132(33.0)	None	39(9.8)
23-27 years	150(37.5)	Self-Employment	154(38.5)
28-32 years	60(15.0)	**Monthly Income**	
33-37 years	27(6.7)	Less than 1000 Ksh.	6(1.7)
38-42 years	19(4.7)	1000Ksh - 10,000Ksh	268(74.2)
43-47 years	7(1.8)	11000Ksh - 20000Ksh	62(17.2)
48+ years	5(1.3)	20000 Ksh and above	25(6.9)

n means number of participants while % means percentage *

4.3 Individual factors influencing access to HIV care and treatment

The results of the influence of individual factors on HIV care are as shown in Table 4.2. The Study findings reveal that, 212(53.0%) of MSM were protestants and of these 184(84.0%) of the MSM had an access to HIV care and treatment. About a half, 207(51.8%) of MSM were employed and of these 180(87.0%) of the MSM had an access to HIV care and treatment. Slightly more than a

third, 150(37.4%) of the MSM were in age category 23-27 years old and of these 129(86.0%) of MSM had an access to HIV care and treatment.

Majority, 268(74.2%) of MSM were earning 1000Ksh. to 10000Ksh. per month and of these, 228(85.1%) of the MSM had an access to HIV care and treatment Majority, 379(95.5%) of the MSM know any HIV care and treatment centers and of these, 333(87.9%) of the MSM had an access to HIV care and treatment

Most, 270(67.5%) of MSM had experienced violence and of these 254(94.1%) of MSM had an access to HIV care and treatment About 292(73.0%) had been stigmatized and of these, 268(91.8%) had an access to HIV care and treatment

Results further reveals that using both Independent Chi-square test of association and logistic regression model, knowing any HIV care and treatment centers experiencing both violence and stigma, monthly income and education level are the determinants to accessing HIV care and treatment since (p-value<0.05).

Logistic regression test shows that MSM who had no religion were less likely (OR=0.3;95%CI,0.13-0.72; p=0.007) to access HIV care and treatment compared to roman catholic whereas, MSM who attained primary education also are less likely (OR=0.5;95%CI,0.23-0.97; p=0.040) to access HIV care and treatment as compared to college or university. MSM who earns less than 1000Ksh. per month also are less likely (OR=0.1;95%CI,0.01-0.26; p=0.001) to access HIV care and treatment as compared to those who earn ksh. 20, 000 and above. MSM who knows any HIV Care and treatment centers were 36.2 times more likely (OR=36.2;95%CI,10.09-129.84; p=<0.0001) to access HIV care and treatment as compared to those who don't Know any care. MSM who had experienced violence and stigma are 8.4 times more likely (OR=8.4;95%CI,4.52-15.64; p=<0.0001) than those who had never experienced violence while

those had been stigmatized before were 5.8 times more like (OR=5.8;95%CI,3.17-10.36; p<0.0001) to access HIV care and treatment respectively as compared to those who had not experienced stigma before.

Table 4. 2: Individual factors influencing access to HIV care and treatment

Variable	N (%)	No Access	Access	p-value	OR (95%CI)	p-value
Religion						
Muslim	57(14.2)	7(12.3)	50(87.7)	0.068	1.3(0.58-3.09)	0.502
No religion	26(6.5)	9(34.6)	17(65.4)		0.3(0.13-0.72)	**0.007**
Other	5(1.3)	1(20.0)	4(80.0)		0.7(0.08-6.52)	0.767
Protestant	212(53.0)	28(13.2)	184(86.8)		1.4(0.81-2.42)	0.229
Roman Catholic	100(25.0)	16(16.0)	84(84.0)		ref	**ref**
Marital Status						
Single/No partner	296(74.0)	44(14.9)	252(85.1)	0.930	ref	**ref**
Single /With Partner	39(9.8)	6(15.4)	33(84.6)		0.9(0.39-2.47)	0.980
Married	56(14.0)	10(17.9)	46(82.1)		0.8(0.38-1.69)	0.559
Widowed/Divorced	9(2.2)	1(11.1)	8(88.9)		1.5(0.18-11.81)	0.728
Education Level						
Primary	47(11.8)	12(25.5)	35(74.5)	0.069	0.5(0.23-0.97)	**0.040**
Secondary	232(58.0)	29(12.5)	203(87.5)		1.7(0.95-2.85)	0.074

	121(30.2		101(83.5			
College/University	)	20(16.5)	)		ref	**ref**
Occupation						
None	39(9.8)	10(25.6)	29(74.4)	0.132	ref	**ref**
	154(38.4		130(84.4			
Self-Employed	)	24(15.6)	)		0.9(0.55-1.68)	0.883
	207(51.8		180(87.0			
Employed	)	27(13.0)	)		1.4(0.82-2.47)	0.205
Age Category						
	132(33.0		107(81.1		ref	ref
18-22 years	)	25(18.9)	)	0.136		
	150(37.4		129(86.0			
23-27 years	)	21(14.0)	)		1.2(0.66-2.07)	0.590
28-32 years	60(15.0)	8(13.3)	52(86.7)		1.2(0.54-2.67)	0.655
33-37 years	27(6.8)	3(11.1)	24(88.9)		1.5(0.43-5.05)	0.538
			19(100.0			
38-42 years	19(4.8)	0(0.0)	)		NA	NA
43-47 years	7(1.8)	3(42.9)	4(57.1)		0.2(0.05-1.06)	0.059
48+ years	5(1.2)	1(20.0)	4(80.0)		0.7(0.08-6.52)	0.767
Monthly Income						
				<0.000		
Less than 1000Ksh.	6(1.7)	5(83.3)	1(16.7)	**1**	0.1(0.01-0.26)	**0.001**
	268(74.2		228(85.1			
1000Ksh to 10000Ksh.	)	40(14.9)	)		0.8(0.38-1.56)	0.461

11000 Ksh to 20000Ksh.	62(17.2)	4(6.5)	58(93.5)		2.7(0.94-7.81)	0.066
20000Ksh and above	25(6.9)	2(8.0)	23(92.0)		ref	**ref**
know of any HIV care and treatment centers						
				<0.000		
No	18(4.5)	15(83.3)	3(16.7)	**1**	ref	**ref**
	379(95.5		333(87.9		36.2(10.09-	**<0.000**
Yes	)	46(12.1)	)		29.84)	**1**
Violence Experienced						
	130(32.5			**<0.000**		
No	)	45(34.6)	85(65.4)	**1**	ref	**ref**
	270(67.5		254(94.1			**<0.000**
Yes	)	16(5.9)	)		8.4(4.52-15.64)	**1**
Stigma Experienced						
	108(27.0			**<0.000**		
No	)	37(34.3)	71(65.7)	**1**	ref	**ref**
	292(73.0		268(91.8			**<0.000**
Yes	)	24(8.2)	)		5.8(3.27-10.36)	**1**

Figures in bold are significant at p < 0.05, NA means Not Applicable while OR means odds ratio category*

This study found that MSMs who were knowledgeable about access to health care services especially HIV care and treatment centers could easily and readily access the services.

> *'Most MSMs who usually come seeking services do mention of their knowledge of availability of health care treatment centers offering ARVs and other preventive*

services like PREP. Thus, leading to more referrals and access of health-related services by MSMs'. (Key informant_ public health facility)

'Yes, most of the MSMs from tis area know about the services we are offering at this facility and that is why they come'. (Key informant_ NGO)

The health care services offered to victims of violence and discrimination lead to a feeling of trust and safe space and therefore get empowered and have access to information on where they could seek health care and support.

'Most of the MSMs who receive counseling from our Institution have a safe space within the facility specifically designated for them, where they are offered psychosocial counselling, they can hold their support group sessions, hold health talks and share challenges and meet paralegals incases of IPV [intimate partner violence] without feeling insecure and unsafe'. (Key informant_ NGO)

'The uptake has increased due to continuous follow ups, use of point persons within the MSM circle to promote the HIV services and its importance has led to a significant shift of those who had experienced stigma and discrimination now actively seeking health care'. (Key informant_ public health facility)

4.4 Interpersonal factors influencing access to HIV care and treatment

From the study findings, MSM who disclosed their sexual orientation to their family/friends were 178(44.5%) and of these 161(90.4%) of MSM had an access to HIV care and treatments (Table 4.3).

The MSM who disclosed their sexual orientation to a health care provider were 207(51.7%) and of these 193(93.2%) had an access to HIV care and treatment, (Table 4.3)

About, 49(23.7%) of MSM who had been discriminated by health care provider due to their sexual orientation and of these 46(93.9%) had an access to HIV care and treatment whereas, 153(86.0%) of MSM had been discriminated by their family members and of these 145(94.8%) of the MSM had an access to HIV care and treatment.

Both Chi-square test of association and Logistic regression reveals that disclosing sexual orientation to family/friends, disclosed sexual orientation to health care provider and being discriminated by family members are the factors that influencing access to HIV care and treatment since both tests reveals a statically significant association with an access to HIV care and treatment($p<0.05$).

The further test reveals that those who disclosed sexual orientation to family/friends were 2.3 more likely (OR=2.3;95%CI,1.29-4.26; p=0.005) to access HIV care and treatment compared to those who did not disclose whereas MSM who disclosed sexual orientation to health care provider were 4.4 times more likely (OR=4.4;95%CI,2.35-8.37; $p<0.0001$) to access HIV care and treatment. MSM who were discriminated by their family members were10 times more likely (OR=10;95%CI,3.45-30.12; $p<0.0001$) to access HIV care and treatment compared to those who not discriminated.

Table 4. 3: Interpersonal factors influencing access to HIV care and treatment

Variable	N (%)	No Access	Access	p-value	OR (95%CI)	p-value
Disclosed sexual orientation to family/friends						
No	222(55.5)	44(19.8)	178(80.2)	**0.005**	**ref**	**ref**
Yes	178(44.5)	17(9.6)	161(90.4)		2.3(1.29-4.26)	**0.005**
sexual orientation disclosure to providers						
No	193(48.3)	47(24.4)	146(75.6)	**<0.0001**	**ref**	**ref**
Yes	207(51.7)	14(6.8)	193(93.2)		4.4(2.35-8.37)	**<0.0001**
Discriminated by Health care provider						
No	158(76.3)	11(6.9)	147(93.1)	0.838	**ref**	**ref**
Yes	49(23.7)	3(6.1)	46(93.9)		1.2(0.31-4.29)	0.838
Discriminated by Family						
No	25(14.0)	9(36.0)	16(64.0)	**<0.0001**	**ref**	**ref**
Yes	153(86.0)	8(5.2)	145(94.8)		10(3.45-30.12)	**<0.0001**

Figures in bold are significant at p < 0.05, NA means Not Applicable while OR means odds ratio category*

Disclosure is a key component in enhancing social support in potentially increasing MSM's access and demand for HIV care and treatment services and also reduced stigma and discrimination.

'Initially the turnout was so low since most MSMs were not comfortable to disclose their sexual orientation and fear of being judged and discrimination. This has improved over time due to sensitization of both the health care providers and the society and also the services offered are non-judgmental. For HIV care and treatment since the clinic supports even the general population, the health care providers in consultation with the MSMs peer leaders were able to

have a flexi time clinic to be able to support the MSM clients to attend their clinic day fully. This means the clinic operates from 7am – 6;30pm as opposed to the initial time of 8am-5pm'. (Key informant_ public health facility)

'Community and key population pairing is also done whereby peer educators mobilize MSMs and services are taken to a hotspot where they convene and health care providers offer comprehensives services and tereby allow for disclosure support'. (Key informant_ NGO)

4.5 Socio-cultural factors influencing access to HIV care and treatment

Results below reveals that 374(93.5%) of MSM gets acknowledged of their practice from their communities and of these 319(85.3%) of MSM have an access to HIV care and treatment (Table 4.4). Majority, 380(95.0%) of MSM thinks that if their community members knows that they are MSM then they would think bad of them and of these 323(85.0%) of MSM have an access to HIV care and treatment (Table 4.4). Majority, 360(90.0%) of MSM thinks that if their community members knew they are MSM then people would be uncomfortable around them and of these 310(86.1%) of the MSM had an access to HIV care and treatment and 282(70.5%) of the MSM thinks that if community members knew that they are MSM then they would lose jobs ,customers and livelihoods and of these 242(85.8%) of MSM had an access to HIV care and treatment, 369(92.2%) of MSM thinks that if their community members knew that they are MSM then they would lose respect /standing within their family or community and of these 317(85.9%) of MSM have an access to HIV care and treatment, lastly, 360(90.0%) of MSM thinks that if their community members knew that they are HIV positive MSM then they would be punished for bad behaviors and of these 308(85.6%) of MSM have an access to HIV care and treatment.

Results further revealedhowe a statically significant association using both independent chi-square test of association and logistic regression model between access to HIV care and treatment with MSM who agreed that community members would feel uncomfortable with them if they knew that they are MSM and MSM who agreed that if community members knew that they are MSM then they would lose respect. The latter test revealed that MSM who thought that the community members would be uncomfortable with them if they knew that they are MSM were 2.4 times more likely (OR=2.4;95%CI,1.11-5.01; p=0.027) to access HIV care and treatment as compared to the co whereas MSM who thought that if community members knew that they were MSM then they would lose respect were 2.5 times more likely (OR=2.5;95%CI,1.13-5.31; p=0.031) to access HIV care and treatment.

Table 4. 4: Community factors influencing access to HIV care and treatment

Variable	N (%)	No Access	Access	p-value	OR (95%CI)	p-value
Acknowledge MSM						
No	26(6.5)	6(23.1)	20(76.9)	0.251	**ref**	**ref**
Yes	374(93.5)	55(14.7)	319(85.3)		1.7(0.67-4.53)	0.256
Members think bad of me						
No	20(5.0)	4(20.0)	16(80.0)	0.544	**ref**	**ref**
Yes	380(95.0)	57(15.0)	323(85.0)		1.4(0.46-4.39)	0.546
People Uncomfortable with me						
No	40(10.0)	11(27.5)	29(72.5)	**0.023**	**ref**	**ref**
Yes	360(90.0)	50(13.9)	310(86.1)		2.4(1.11-5.01)	**0.027**
People would lose their jobs						
No	118(29.5)	21(17.8)	97(82.2)	0.359	**ref**	**ref**
Yes	282(70.5)	40(14.2)	242(85.8)		1.3(0.74-2.34)	0.360
People loose respect						
No	31(7.8)	9(29.0)	22(71.0)	**0.026**	**ref**	**ref**
Yes	369(92.2)	52(14.1)	317(85.9)		2.5(1.13-5.31)	**0.031**
People consider punishment for bad behavior						
No	120(30.0)	24(20.0)	96(80.0)	0.084	**ref**	**ref**
Yes	280(70.0)	37(13.2)	243(86.8)		1.6(0.93-2.89)	0.086
People would shun me						
No	40(10.0)	9(22.5)	31(77.5)	0.179	**ref**	**ref**
Yes	360(90.0)	52(14.4)	308(85.6)		1.7(0.77-3.82)	0.183

Figures in bold are significant at p < 0.05, NA means Not Applicable while OR means odds ratio category*

The community values which are so much enshrined define the homosexuals as not one of the expected societal values. Interestingly, with the support from health workers and other peer led advocates, the MSMs are moving away from a feeling of being shameful and neglect to a path of more self-awareness and confidence and therefore able to freely and comfortable access health care despite their sexual orientation.

> *'Societal norms and values; which expect that a normal relationship should be heterosexual and not homosexual. Despite this, the health care workers do not impose their values thus offering quality services. This also creates affirmation to the MSMs'* (Key informant_NGO)
>
> *'The MSM focal peer persons used were also trained and mentored to also encouraged to mobilize their social networks to access services'.* (Key informant_ public health facility)

4.6 Institutional factors influencing access to HIV care and treatment

Results reveals that majority, 390(97.5%) of the MSM have ever gone for treatment in a healthy facility and of these 334(85.6%) of MSM had an access to HIV care and treatment,116 (29.0%) of MSM turned out to be HIV positive and of these 114(98.3%) had an access to HIV care and treatment and 282(70.5%) of MSM rates HIV services in health facilities as good and of these 245(86.9%) had an access to HIV care and treatment, also quite a number 195(48.7%) of MSM agrees that HIV care and treatment services are available for MSM in public hospitals of which all of them had an access to HIV care and treatment (table 4.5).

The results revealed that 23(5.7%) of the MSM believes that MSM is legal in Kenya and of these, 23(100.0%) of the participants have an access to HIV care and treatment, about 11(2.7%) of the MSM believes that Kenya's law acknowledges them and of these 11(100.0%) of MSM do have an

access to HIV care and treatment. A close to half of the MSM 184(46.0%) believes that government institutions do have conversations around their rights and equality in access to social amenities and of these 183(99.5%) of MSM do have an access to HIV care and treatment whereas, 309(77.2%) of MSM agrees that there are systems in place that guards them in their access to healthcare of these 288(93.2%) have an access to HIV care and treatment (table 4.5).

Independent chi-square test of association revealed a statistically significant association between an access to HIV care and treatment with MSM who had gone for treatment at health facility, MSM's HIV status, MSM who rated their HIV health care services and HIV health care availability for MSM in public health facility whereas with logistic regression model the results further reveals that MSM who had gone for treatment at health facilities and MSM who were HIV positive both are more likely (OR=5.9;95%CI,1.67-21.27;p<0.0001), (OR=14.9;95%CI,2.86-5.08 ;p<0.0001) to access HIV care and treatment respectively. Also, the result revealed that HIV negative MSM were o.3 less likely seek HIV health care services as compared to those who do not Know their HIV status (OR=0.3;95%CI,0.12-0.52; p<0.0001)."

Results further revealed that using both independent chi-square test of association and logistic regression, those who believe that MSM is legal in Kenya have a statistically significant association with access to HIV care and treatment (p-value=0.036), MSM who thinks that government institutions have conversation with MSM (p-value<0.0001) and that there are systems that guards them (p-value<0.0001) have a statistical significant association with access to HIV care and treatment using independent chi-square test of association respectively (table 4.5).

However, MSM who believe that government institutions do have a conversation with them have higher odds of having an access to HIV care and treatment (OR=70.4;95%CI,9.64-513.74;

p<0.0001) compared to those who believed otherwise, whereas MSM who thinks that there are systems that guards them also have higher odds (OR=10.8;95%CI,5.87-19.72; p<0.0001) of having an access to HIV care and treatment (table 4.5).

Table 4. 5: Institutional factors influencing access to HIV care and treatment

Variable(N=400)	N (%)	No Access	Access	p-value	OR (95%CI)	p-value
Gone for treatment at HF						
No	10(2.5)	5(50.0)	5(50.0)	**0.002**	**ref**	**ref**
Yes	390(97.5)	56(14.4)	334(85.6)		5.9(1.67-21.27)	**0.006**
HIV/Status						
Don't Know	32(8.0)	7(21.9)	25(78.1)	**<0.0001**	**ref**	**ref**
Negative	252(63.0)	52(20.6)	200(79.4)		0.3(0.12-0.52)	**<0.0001**
Positive	116(29.0)	2(1.7)	114(98.3)		14.9(2.86-5.08)	**<0.0001**
Rate HIV health care services for MSM						
Excellent	9(2.3)	0(0.0)	9(100.0)	**<0.0001**	**ref**	**ref**
Good	282(70.5)	37(13.1)	245(86.9)		1.7(0.96-2.98)	0.069
Poor	15(3.7)	12(80.0)	3(20.0)		0.1(0.01-0.13)	**<0.0001**
Very good	94(23.5)	12(12.8)	82(87.2)		1.3(0.66-2.57)	0.445
HIV health care available for MSM in Public HF						
No	205(51.3)	61(29.8)	144(70.2)	**<0.0001**	NA	NA
Yes	195(48.7)	0(0.0)	195(100.0)	NA	NA	NA
MSM Legal in Kenya						
No	377(94.3)	61(16.2)	316(83.8)	**0.036**	NA	NA
Yes	23(5.7)	0(0.0)	23(100.0)		NA	NA
Kenyan's law acknowledges MSM						
No	389(97.3)	61(15.7)	328(84.3)	0.154	NA	NA

Yes	11(2.7)	0(0.0)	11(100.0)		NA	NA
Gvt institutions have conversation with MSM						
No	216(54.0)	60(27.8)	156(72.2)	**<0.0001**	**ref**	**ref**
Yes	184(46.0)	1(0.5)	183(99.5)		70.4(9.64-513.74)	**<0.0001**
Systems guarding MSM						
No	91(22.8)	40(43.9)	51(56.1)	**<0.0001**	**ref**	**ref**
Yes	309(77.2)	21(6.8)	288(93.2)		10.8(5.87-19.72)	**<0.0001**

Figures in bold are significant at p < 0.05, NA means Not Applicable while OR means odds ratio category*

Great experiences at health care facilities including respect, positive health provider attitudes all facilitate the MSM to access HIC care treatment and other services.

> *'When a MSM comes for services and they get services without being judged and victimized they will always make sure they bring another peer who needs services similar to theirs or even different services provided they are treated with dignity' (KII_ NGO)*

The Key informants acknowledged the need of Government active engagement for people from minority backgrounds, identifying the importance of collectivism to one's identity while fostering cohesion is imperative in ensuring access to health care services more so for the MSM living with HIV.

> *'Within a cohesive society, one feels connected with' and it's okay within a collective society I think, there is the benefit between the multiple identities people have - the identity of belonging to a culture that … they're proud of, and the identity of living with HIV'.* (Key informant_ public health facility)

The Institutional system that are at play in guarding the sexual minorities for example the MSM play a key role in amplifying their voices on matters affecting them more so in health care services including HIV care and treatment services.

‘The Government as an institution play critical role in guarding the welfare of MSM. If it is known [homosexual practices/orientation]in most communities, he could be could be probably maybe even discriminated even more [than] someone with HIV [they would have to] so when the MSM feel that the Government can protect them, they are likely to be free and comfortable and therefore benefit from openly accessing HIV care and treatment services’. (Key informant_ NGO)

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This study adds to the body of literature on the myriad of factors that contribute to the barriers in accessing HIV care and treatment among MSM, such as no religion, low income and low education, HIV negative status, Previous attendance for treatment at health facilities, HIV positive status, belief that MSM is legal in Kenya, Belief that government institutions have conversation and systems that MSM. Furthermore, the factors found to be associated with access to HIV care and treatment were knowledge of HIV care and treatment centers and MSM with lived experience of violence and stigma, Disclosure of sexual orientation to family and friends, disclosure of sexual orientation to health care provider and access to HIV care and treatment and discrimination by family members, Negative community perceptions and behavior including discomfort and lose of respect.

5.1.1 Individual factors influencing access to HIV care and treatment.

This study found that MSM who did not practice any religion were less likely to access HIV care and treatment. This could be due to the fact that they may not have any religious beliefs or spiritual connection that brings about confidence, self-esteem and awareness. Contrary, a study conducted in Australia found HIV to be a highly stigmatized condition in ethnically diverse communities due to fear of moral judgment and social isolation, and was experienced at the intersections of religion and culture (Ziersch et al., 2021).

MSM who earns less than 1000Ksh. per month were less likely to access HIV care and treatment compared to those who earn 20000ksh and above. The probable reason could be that with low earning, they are likely to face competing needs and therefore face barriers to transport and or

treatment and opportunity costs. This finding is consistent with another study, which revealed that lower income lowered the chance of MSM accessing HIV testing services(Knox et al., 2011).

The study also found MSM with lower levels of education less likely to receive HIV care and treatment than those with greater levels of education. One possible explanation for this finding is that less educated people may have less exposure to and access to health information. This outcome is in line with previous research in both MSM and critical populations(Yu, Maohe and Song & Al., 2022). Conversely, other findings indicate that higher education level was positively associated with MSM HIV testing (Zhang et al., 2013). MSM with a bachelor's degree or higher degree were more likely to have an HIV test or seek HIV prevention services, probably because they perceived that they were at a higher risk for HIV infection (R. Li et al., 2016; Zhang et al., 2013).

The MSM who reported knowledge of any HIV Care and treatment centers are more likely to access HIV care and treatment. This is consistent with other study findings that found positive association between MSM and transgender women who had knowledge of an HIV outreach center with access to HIV care (Storm et al., 2020).

This study found significance between MSM who experienced violence and stigma to be more likely to access HIV care and treatment. This is in line with a recent study investigating uptake of HIV testing services among MSM in Nepal which found that MSM who experienced forced sex in the past were more likely to access the testing services (Shrestha et al., 2017).

5.1.2 Interpersonal factors influencing access to HIV care and treatment.

The study findings revealed that MSM who disclosed their sexual orientation to family and friends are more likely to access HIV care and treatment. This could be due to the confidence, emotional and peer support that comes with disclosure and therefore feel empowered to seek health care

services to improve one's quality of life. This finding is consistent with a study conducted in Nepal which found that, there was a positive association between openness to family about sexual behavior and identity and having visited an outreach Centre (Deuba et al., 2013).

There was a positive association between MSM who disclosed sexual orientation to health care provider and access HIV care and treatment. This could probably be due to the fact that they had received satisfaction of service by the providers earlier and therefore felt safe in disclosing and continuing with HIV care. Studies done in Uganda and Malawi show that most health workers do not have any reservations and that they have an obligation in serving MSM if they were to obtain HIV services. Though the providers felt they would require more skills to handle the MSM nonetheless (Kapanda et al., 2019; Matovu et al., 2019). Contrary to these findings, a study in Ghana found that MSM felt that they were not understood by the healthcare providers and that healthcare providers did not care about them. Therefore, reduced their likelihood in accessing HIV care services (Kushwaha et al., 2017).

The study further found that MSM who had been discriminated by their family members being more likely to access HIV care and treatment. This may be as a result of seeking support and care from healthcare providers as an alternative source of social and emotional support. In addition, discrimination enables individuals to become more aware of the importance of HIV care and treatment, thus prompting them to seek healthcare services. This finding is contrary to a study done in Nepal that found reduced stigma removes barriers to service uptake and has been observed in a previous study of MSM in Nepal (Deuba et al., 2013).

5.1.3 Socio-cultural factors influencing access to HIV care and treatment.

MSM who think that the community members would be uncomfortable with them if they knew that they are MSM are more likely to access HIV care and treatment. This could be more of an increased self-awareness and affirmation leading to reduced HIV related stigma. It can also be articulated to the perception by MSM of being at a higher risk for HIV due to stigma, discrimination, and potential limited access to safe sexual practices. This finding is contrary to another study where the MSM who failed to go for HIV testing believing that they would be suspected by the community, colleague, or boss that they were infected with HIV (Song et al., 2011).

MSM who thinks that if community members knew that they are MSM then they would lose respect are more likely to access HIV care and treatment. This finding is contrary to other findings that have shown that HIV stigma and related HIV discrimination is a major barrier to accessing prevention, care, and treatment services and can negatively impact social relationships, the psychological wellbeing of people living with HIV/AIDS (Chinouya et al., 2017; Stutterheim et al., 2009; Sumari-De Boer et al., 2012)

5.1.4 Institutional factors influencing access to HIV care and treatment.

MSM who had gone for treatment at health facilities are more likely to access HIV care and treatment. Conversely, MSM who rated HIV health care services as poor had less likelihood of having an access to HIV care and treatment. These findings are concurrent with other studies that found health care friendly systems with improved service delivery and cultural competencies increase the possible access to HIV care and treatment for people living with HIV/ AIDS (Rechel et al., 2013).

MSM who were HIV positive indicated the likelihood to want to access HIV care and treatment. Given their HIV status that may have pre-disposed them to opportunistic infections, HIV testing etc. therefore exposure and frequent interactions at the health facilities. Another study reported in Ghana had similar findings where, MSM had positive attitudes towards HIV prevention (Kushwaha et al., 2017). However, MSM who were HIV negative had less likelihood of wanting to access HIV care and treatment in case they screened HIV positive. This finding concurs another where the barriers related to a linkage to HIV care included perceived healthy status, low health literacy, and stigma associated with receiving HIV care (H. Li et al., 2017).

Those who believe that MSM is legal in Kenya have a positive association with access to HIV care and treatment. This finding is in congruent with other studies where ssexual minorities, by virtue of their status as human beings are entitled to the enjoyment of fundamental rights and freedom like other human beings. This in particular includes the enjoyment of the highest attainable standards of health as a fundamental right of every human being without discrimination or stigmatization (Nelson et al., 2015). Continued denial of the existence of sexual minorities in Kenya has remained a major stumbling block to meeting their health needs and by extension limiting access to HIV care and treatment.

There was a positive association between MSM who think that government institutions have conversation and systems that guards them with access to HIV care. Conversely, MSM who felt that the Government did not have conversations with them nor systems to guard them were less likely to access HIV care. This finding is consistent with other studies that have found homophobic tendencies, rumours in the gay community and legislation around homosexuality have continued to make MSM less visible in HIV care and treatment programs (Larsson et al., 2016). Furthermore, the prevailing social and legal structural barriers affecting HIV-infected individuals and MSM,

such as criminalization, social isolation (Ulasi, 2009), and financial exclusion (Kushwaha, 2017) intersect to complicate HIV prevention, care and treatment efforts for MSM (Dramé, Peitzmeier, et al., 2013; Scheibe et al., 2014).

5.2 Conclusion

Men who have sex with men (MSM) face a significantly higher risk of HIV infection than the general population around the globe. The findings will be important in the HIV care and treatment of MSM and also in the prevention of HIV infection. These findings offer insights that can support implementing programs in responding to the needs and concerns of MSM living with HIV.

5.2.1 Individual factors influencing access to HIV care and treatment.

Individual characteristics showed that MSM who did not practice any religion, earned less than Ksh. 1000 per month, and had lower levels of education were less likely to receive HIV care and treatment. Those who were informed about HIV care and treatment centers and had suffered violence and stigma were more likely to seek treatment. These findings reflect the complex relationship of individual factors and socio-cultural context in impacting healthcare access.

5.2.2 Inter-personal factors influencing access to HIV care and treatment.

The study emphasized the relevance of disclosure in the field of interpersonal factors. MSM who disclosed their sexual orientation to family and friends, as well as healthcare practitioners, had a higher chance of receiving HIV care and treatment. This emphasizes the critical importance of support networks and healthcare professional attitudes in promoting access to healthcare. However, family member prejudice appeared as a factor that boosted access to care, possibly indicating the search for other sources of support and a heightened understanding of the need of HIV care and treatment.

5.2.3 Socio-cultural influencing access to HIV care and treatment.

Socio-cultural aspects revealed the influence of MSM opinions of how their community perceives them. Those who feared that their sexual orientation would make community members uncomfortable and those who believed they would lose respect were more likely to seek HIV care and treatment. This shows that self-awareness and the perceived risk of HIV as a result of stigma and discrimination may influence healthcare access.

5.2.4 Institutional factors influencing access to HIV care and treatment.

Institutional considerations were crucial. MSM who had previously received HIV treatment in a health facility and assessed HIV healthcare services positively were more likely to seek therapy. Individuals who were already HIV positive were more likely to seek treatment, but those who were HIV negative were less likely to seek treatment in the event of a positive diagnosis. The legal background appeared as an important component as well, with individuals who felt MSM was legal in Kenya having a favorable correlation with access to treatment. Similarly, trust in government institutions and their interaction with MSM improved healthcare access, in contrast to the hurdles generated by homophobia, rumors, and legal systems that harm MSM.

5.3 Study recommendation

Based on the findings, the study recommends the following:

i) Diverse Religious and Cultural Sensitivity Training: Develop and implement training programs for healthcare providers and community leaders that promote religious and cultural sensitivity. This can help create a more inclusive healthcare environment and reduce stigma related to HIV care and treatment among MSM who do not practice any religion or belong to stigmatized religious communities.

ii) Income Support Programs: Establish income support programs for MSM with low earnings to mitigate financial barriers to accessing HIV care and treatment. Addressing their competing needs, such as transportation and opportunity costs, can enhance their engagement with healthcare services and reduce disparities in care access.

iii) Comprehensive Health Education: Promote comprehensive health education programs targeting MSM with lower levels of education to improve their access to health information. Increasing awareness about HIV care and treatment and the importance of regular testing can facilitate early intervention and care engagement.

iv) Community and Peer Support Initiatives: Encourage the development of peer support groups and community networks for MSM to create a safe space for disclosure and mutual assistance. Moreover, empowering healthcare providers to provide non-discriminatory care and encourage disclosure can further enhance engagement with care and treatment.

v) Legal and Policy Reforms: Advocate for legal and policy reforms that protect the rights and well-being of MSM in Kenya. This includes recognizing the rights of sexual minorities and ensuring government institutions actively engage with and support the healthcare needs of MSM. Removing legal and structural barriers is crucial to promoting equitable access to HIV care and treatment.

5.3.1 Suggestion for further research

The study recommends the following for future studies:

i) Conduct long-term studies to track the treatment outcomes and retention rates among MSM receiving HIV care and treatment in Kisumu County or any other part of the country with

high prevalence of MSM. This research could help identify the factors that contribute to successful treatment and long-term adherence.

ii) Qualitative Studies on Stigma and Discrimination: Explore the experiences of MSM regarding stigma and discrimination in healthcare settings in greater depth. Qualitative research can provide a nuanced understanding of the challenges MSM face and potential strategies to address these issues.

iii) Investigate the impact of training and sensitization programs for healthcare providers in Kisumu County. Assess whether these interventions lead to improved healthcare experiences for MSM and whether they influence disclosure and care-seeking behaviors.

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APPENDICES

APPENDIX I: DATA COLLECTION TOOLS

CONSENT FORM

Title of the study: Determinants of linkage to HIV care and treatment among men who have sex with men (MSM) in Kisumu county, Kenya

Principal Researcher: Kebaya Emily Bonita

PURPOSE OF RESEARCH

I am Bonita Emily Kebaya a student at Maseno University pursuing a Master degree in Public Health. The study will aim to '*Determinants of linkage to HIV care cnd treatment among Men who have Sex with Men (msm) in Kisumu County,Kenya*

PROCEDURES:

After signing the consent form, the research assistant will ask you questions about Determinants of linkage to HIV care cnd treatment among Men who have Sex with Men (msm) in Kisumu County,Kenya. You may be requested to participate in either the survey or Key Informant Interview. The survey and Key informant interview will take 30 minutes.

CONFIDENTIALITY

We will do our best to protect the information we collect from you. This questionnaire will collect data strictly for the purpose of learning and shall not be used for any other purpose whatsoever. The information obtained from respondents shall be treated with ultimate confidentiality and shall not be diverged to anybody or any other use than the intended.

RISKS

There are no risks involved in this study. It has been approved by the Jaramogi Oginga Odinga Teaching and Referral Hospital Institutional and Research Committee and Maseno University School of Graduate studies.

BENEFITS

There are no direct benefits to you but the results of this study will be used to inform stakeholders on the need to improve linkage to HIV care cnd treatment among Men who have Sex with Men (MSM). It will also inform on the study population on the need to adopt and promote services that support and meet the needs of of Men who Have Sex with Men.

PARTICIPATION

Participation in this study is voluntary and you may withdraw from it at any time and without any adverse consequences.

CONTACTS For more information contact

For any questions or concerns about this study please contact the study Investigator Telephone No. 0721690248. For any questions pertaining to your rights as a research participant, contact person is: The secretary, Maseno University Ethics Review Committee, Private Bag, Maseno; Telephone numbers: 057-51622, 0722203411, 0721543976, 0733230878.

WHAT YOUR SIGNATURE OR THUMB PRINT MEANS

PARTICIPATION IN THIS RESEARCH IS VOLUNTARY. You have the right to say 'NO' to participation in this study. Your signature or thumbprint below means you agree to participate in the study and that everything pertaining to this study has been explained to you and you have had the opportunity to ask questions and get answers. A copy of this consent form will be given to you.

Respondents:

Signature……Date……...

Researchers:

Signature……Date……...

STRUCTURED QUESTIONNAIRE

Questionnaire's Code……Date……...

My name is _____ and I want to thank you for agreeing to take part in this short interview. I would like to get your thoughts around factors that enable and those that inhibit linkage to care and treatment among MSM in Kisumu County.
The interview should take less than 45 minutes. All responses will be kept confidential. This means that any information we include in the report does not identify you as a respondent. Remember, you don't have to talk about anything you are not comfortable talking about and you may end the interview at any time.
Are there any questions about what I have just explained? Are you willing to participate in this interview?

Individual factors influencing access to HIV care and treatment		
No.	**Questions**	**Answer Choices**
Section 1:	**Demographic Information**	
1.	How old are you?	Age in years:
2.		
3.	What is the highest level of education you've completed?	Primary Secondary College/University
4.	What is your employment status?	Formally employed Self-employed Casual laborer Not employed
5.	What is your monthly income?	Less than 1000 1000 to 10,000 11,000 to 20,000 20,000 and above
6.	What is your religion?	Roman Catholic Protestant Hindu Muslim Other
Section 2: Sexual Orientation		
7.	What is your sexual orientation?	MSM Transgender Bisexual
8.	Have you disclosed your sexual orientation to friends or family? **If No go to 12**	Yes No
9.	Have you ever experienced discrimination by friends or family due to your sexual orientation?	Yes No

10.	Do you have any experience with abuse or violence due to your sexual orientation?	Yes No
11.	Have you experienced any stigma or discrimination due to your sexual orientation?	Yes No
12.	What are some of the reasons for not disclosing your sexual orientation to family or friend?	Fear of rejection Embarrassment Against religious beliefs Against the social norms Fear of legal action/ imprisonment Stigma and discrimination Other (specify) _____
Section 3: Community Factors		
13.	My community does not appreciate same sex relationships?	Yes No
14.	If my community knew I am MSM, they would think badly of me	True False
15.	If my community knew I am MSM, people would not want to be friends with me	True False
16.	If my community knew I am MSM, I would lose my job, customers, or livelihood.	True False
17.	If my community knew I am MSM, I would lose respect.	True False
18.	If my community knew I am HIV positive, they will consider this a punishment for my bad behavior (MSM)	True False
Section 4: Access to Health services		
19.	Have you ever sought treatment in a health facility?	Yes No
20.	Did you disclose your sexual orientation to a health care provider?	Yes No
21.	Did you receive the health service you required?	Yes No
22.	Have you ever been discriminated by a health care provider due to your sexual orientation?	Yes No
23.	Would you say the relationship between the health care providers and their patients is	Very Good Good Bad Very bad
Section 5: HIV Status and Services		
24.	Do you understand what HIV/ AIDs is?	Yes No

25.	Would you seek HIV care services if you tested HIV positive today?	Yes **If Yes go to 27** No
26.	If no why?	Provider attitude Fear of being stigmatized Distance to the facility Others, specify
27.	What is your HIV status? **If HIV Negative go to Q 30**	Positive Negative Don't know
28.	Where do you seek HIV care and treatment services?	Public health facility Private health facility Others, specify
29.	In your opinion, are the HIV care and treatment services available for MSM in public health facilities?	Yes No
30.	In your opinion, are the HIV care and treatment services accessible for MSM?	Yes No
31.	Do you know of any HIV care and treatment centers?	Yes No
32.	In your opinion, rate the HIV services in health facilities for MSM?	Poor Good Very Good Excellent
Section 6: Legal, Policy and other enabling factors		
33.	To your knowledge is MSM relationship legal in Kenya?	Yes No
34.	Does the Kenyan law acknowledge MSM marriages?	Yes No
35.	Does Government institutions have conversations around MSM rights and equality in access to social amenities?	Yes No
36.	Are there systems in place that guard the MSMs in their access to health care? For example by the Government that ensures there are MSM facilities like hospitals?	Yes No

We have come to the end of this interview. Thank you for your time!

KEY INFORMANT INTERVIEW

1. Gender : Male ( ) Female ( )
2. Do you offer HIV care and treatment services to MSM? Yes ( ) No ( )
3. Are there ways that the MSM in your health facility get discriminated? Please describe
4. How would you describe the MSM HIV care and treatment clinic attendance?
5. What are your experiences with the MSM willingness to know their HIV Status?
6. Do MSM share freely their sexual and reproductive challenges with you? Why?
7. What are some of the challenges that the health care providers face in offering HIV/ AIDS care or other reproductive health services to the MSM?
8. In your opinion, are the HIV care and treatment available and accessible to MSM in health facilities?

   If No, why? Specify…….

APPENDIX II: STUDY AREA MAP

APPENDIX III: JOOTRH IRB APPROVAL LETTER

COUNTY GOVERNMENT OF KISUMU
DEPARTMENT OF HEALTH

Telephone: 057-2020801/2020803/2020321
Fax: 057-2024337
E-mail: medsuptnpgh@yahoo.com
ceo@jaramogireferral.go.ke
Website: www.jaramogireferral.go.ke

JARAMOGI OGINGA ODINGA TEACHING & REFERRAL HOSPITAL
P.O. BOX 849
KISUMU

When replying please quote

Ref. No. IERC/JOOTRH/289/20

25, November 2020

To: Emily Bonita Kebaya

RE: STUDY TITLE: ***Determinants of Linkage to HIV Care and Treatment Among Men Who have Sex with Men(MSM) in Kisumu County Kenya***

This is to inform you that ***JOOTRH IERC*** has reviewed and approved your above research proposal. Your application approval number is ***IERC/JOOTR/203/20.*** The approval period is 25th ***November, 2020 – 25th November, 2021.***

This approval is subject to compliance with the following requirements;

i. Only approved documents including (informed consents, study instruments, MTA) will be used
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by ***JOOTRH - IERC.***
iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to ***JOOTRH - IERC*** within 72 hours of notification
iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to ***JOOTRH - IERC*** within 72 hours
v. Clearance for export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days upon completion of the study to JOOTRH - ***IERC.***

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) https://oris.nacosti.go.ke and also obtain other clearances needed.

In case the case of study site is JOOTRH, kindly report to Chief Executive Officer before commencement of data collection.

Yours sincerely

SECRETARY, IERC

INSTITUTIONAL ETHICS & REVIEW COMMITTEE
25 NOV 2020
JOOTRH

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APPENDIX IV: NACOSTI APPROVAL CERTIFICATE

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **496295**

Date of Issue: **27/September/2021**

RESEARCH LICENSE

This is to Certify that Ms.. Emily Bonita Kebaya of Maseno University, has been licensed to conduct research in Kisumu on the topic: DETERMINANTS OF LINKAGE TO HIV CARE AND TREATMENT AMONG MEN WHO HAVE SEX WITH MEN (MSM) IN KISUMU COUNTY, KENYA for the period ending : 27/September/2022.

License No: **NACOSTI/P/21/13252**

496295

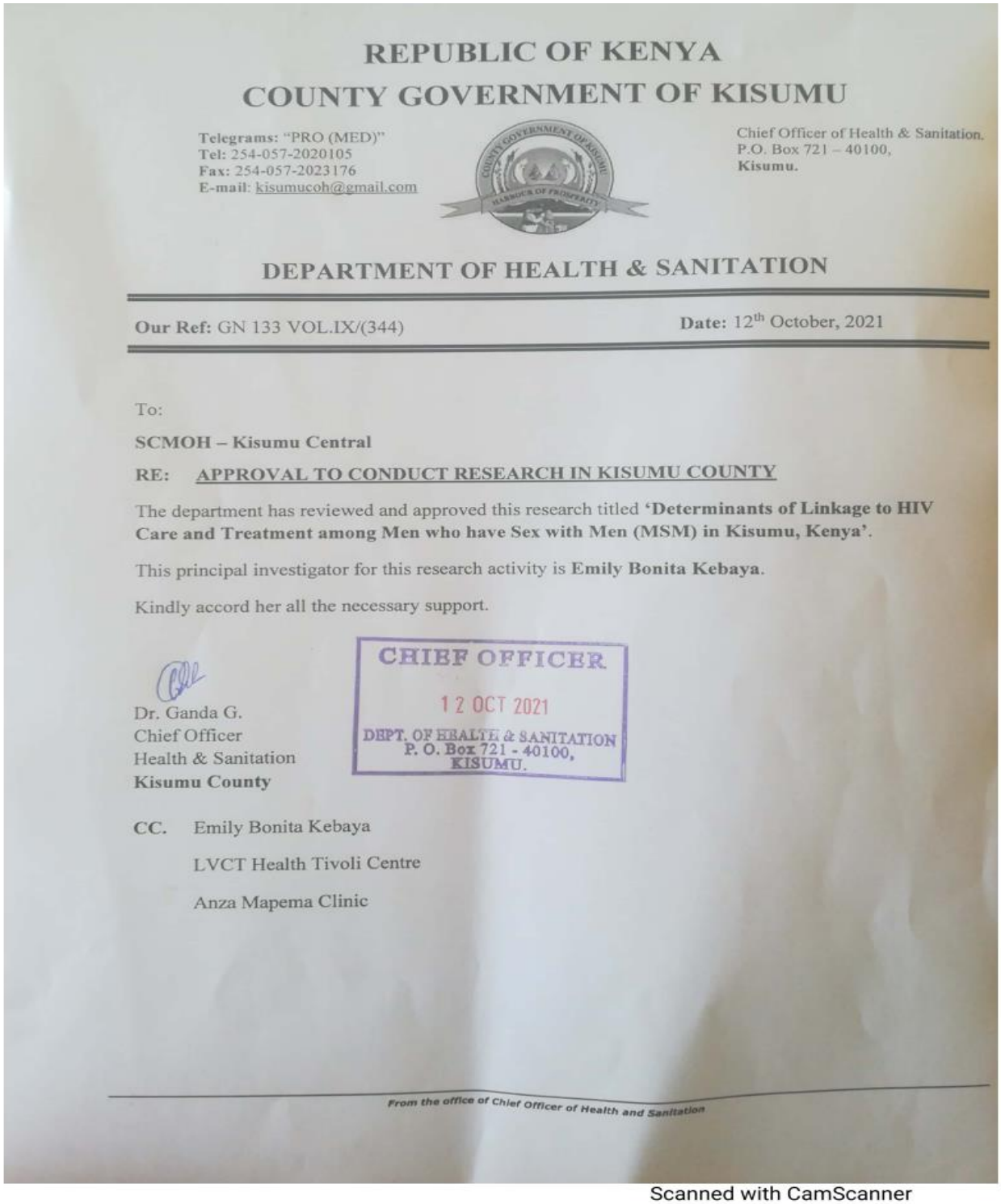
Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

APPENDIX V: KISUMU COUNTY OF HEALTH AUTHORIZATION LETTER TO CONDUCT RESEARCH



REPUBLIC OF KENYA

COUNTY GOVERNMENT OF KISUMU

Telegrams: "PRO (MED)"
Tel: 254-057-2020105
Fax: 254-057-2023176
E-mail: kisumucoh@gmail.com

Chief Officer of Health & Sanitation.
P.O. Box 721 – 40100,
Kisumu.

DEPARTMENT OF HEALTH & SANITATION

Our Ref: GN 133 VOL.IX/(344) Date: 12th October, 2021

To:

SCMOH – Kisumu Central

RE: APPROVAL TO CONDUCT RESEARCH IN KISUMU COUNTY

The department has reviewed and approved this research titled **'Determinants of Linkage to HIV Care and Treatment among Men who have Sex with Men (MSM) in Kisumu, Kenya'**.

This principal investigator for this research activity is **Emily Bonita Kebaya**.

Kindly accord her all the necessary support.

CHIEF OFFICER
12 OCT 2021
DEPT. OF HEALTH & SANITATION
P. O. Box 721 - 40100,
KISUMU.

Dr. Ganda G.
Chief Officer
Health & Sanitation
Kisumu County

CC. Emily Bonita Kebaya
LVCT Health Tivoli Centre
Anza Mapema Clinic

From the office of Chief Officer of Health and Sanitation

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