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Stigma, Gender Dynamics, and Structural Barriers to HIV Services Access in the South West Region of Cameroon: Assessing the Implementation of the Test and Treat Strategy in Expanding ART Access and Improving Treatment Outcomes in the South West Region: A Qualitative Study

Tankoh Marceline Fegen[1]*, Loveline Lum Niba[1] and Tendongfor Nicholas[2]

[1] *Tankoh Marceline Fegen, MSc, Department of Public Health, Faculty of Health Sciences, University of Bamenda, Cameroon.*

[2] *Professor of Medical Microbiology and Biostatistics Department of Public Health and Hygiene, Faculty of Health Sciences, University of Buea, Cameroon.*

***Correspondence:**
Tankoh Marceline Fegen, MSc, Department of Public Health, Faculty of Health Sciences, University of Bamenda, Cameroon, ORCID ID: 0009-0002-0165-0462.

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ABSTRACT

Background: *The adoption of the Test and Treat strategy has transformed global HIV care by promoting immediate initiation of antiretroviral therapy (ART) following diagnosis. While this approach has improved ART coverage, its effectiveness is shaped by socio-cultural and structural determinants. This study explores how stigma, gender dynamics, and health system factors influence the implementation of Test and Treat in the South West Region of Cameroon.*

Methods: *A qualitative study using in-depth interviews and focus group discussions was conducted among PLHIV, community members, and health care providers. Data were analyzed using thematic analysis. An interpretive approach was applied to examine the interaction between individual experiences and broader social and structural determinants.*

Results: *A total of 18 PLHIV and 37 service providers. took part in the study, 18 IDIs and 5 FDGs conducted. Five key themes emerged: (1) persistent HIV-related stigma affecting testing and treatment uptake; (2) gendered power relations influencing access and adherence; (3) structural and economic barriers; (4) health system constraints affecting service delivery; and (5) coping strategies and resilience among PLHIV. While Test and Treat improved early ART initiation, its outcomes were mediated by entrenched social and systemic inequities.*

Conclusion: *The effectiveness of Test and Treat in Cameroon is constrained by intersecting social, gender, and structural factors. Addressing these requires a shift from purely biomedical approaches to integrated, rights-based, and socially responsive HIV programming.*

Keywords
HIV, Test and Treat, ART access, Stigma, Gender, SWR Cameroon.

Acronyms
HIV: Human Immunodeficiency Virus, AIDS: Acquired Immunodeficiency Syndrome, PLHIV: People Living with HIV, ART: Antiretroviral Therapy, IDI: In-Depth interview, FGD: Focused group discussion, WHO: World Health Organization, UNAIDS: Joint United Nations Programme on HIV/AIDS.

Introduction
The global scale-up of ART has significantly reduced HIV-related morbidity and mortality. The Test and Treat strategy, recommended by the World Health Organization, advocates for immediate ART initiation following HIV diagnosis, contributing to both individual health benefits and reduced HIV transmission [1].

Despite these advances, access to HIV services remains uneven, particularly in sub-Saharan Africa. Evidence suggests that biomedical interventions alone are insufficient to achieve optimal outcomes without addressing underlying social determinants such as stigma, gender inequality, and structural barriers [2,3].

In Cameroon, the adoption of Test and Treat has led to increased ART coverage. However, disparities in treatment uptake and retention persist, particularly in conflict-affected regions such as the South West. Stigma continues to shape health-seeking behavior, while gender norms influence decision-making power and access to care [4,5].

Theoretical perspectives such as the social determinants of health framework and structural violence theory highlight how health outcomes are shaped by broader socio-economic and political contexts [6,7]. Additionally, intersectionality theory provides a lens to understand how overlapping identities (e.g., gender, socioeconomic status, HIV status) produce compounded vulnerabilities [8].

This study applies these theoretical perspectives to explore how stigma, gender dynamics, and structural factors influence the implementation of Test and Treat in the South West Region of Cameroon.

Materials and Methods

Study site

The study was conducted in selected health districts in the South West Region of Cameroon, a setting characterized by both urban-rural disparities and ongoing socio-political challenges.

The South West Region of Cameroon has approximately 4 million residents, predominantly Bantu ethnic groups. HIV prevalence is around 2.4%, slightly lower for a region than the national average of 2.9% [9]. The region faces challenges related to healthcare access and HIV prevention efforts. The region's socio-cultural diversity, variable health infrastructure, and HIV burden provide a comprehensive context for evaluating policy implementation.

Study Design

A qualitative exploratory design was employed to capture in-depth experiences related to HIV service access under the Test and Treat strategy.

Study population

Participants included:

- PLHIV aged 15 to 59 years receiving treatment in one of the eleven HIV care and treatment centers in the SWR of Cameroon and who had been on ART for at least 6 months with a viral load result.
- Health care providers and community health workers who have worked for at least six months

Sample size and sampling strategy

For this qualitative study, the sample size was determined using the principle of data saturation, whereby participants were recruited until no new information or themes emerged. We initially had typically plan to involve approximately 15-20 interviews or a 3-6 focus groups, given on the scope of the study.

Purposive sampling was used to select participants with relevant experiences. Maximum variation sampling ensured diversity across gender, age, and socio-economic status.

Data collection

Data were collected through

An IDI guide, a flexible tool used to explore clients' experiences, perceptions, and challenges related to HIV testing, treatment initiation, adherence, and retention in South West Cameroon. It collected demographic, socio-economic, and healthcare engagement information, including medication pickup and coverage. The guide examined clients' knowledge of HIV services, initial facility experiences, and feelings about lifelong ART, along with barriers and facilitators to initiation. It explored adherence behaviors, challenges, and support systems, as well as retention strategies and attitudes toward ongoing care. The guide also addressed perceptions of viral suppression, community influences, disclosure experiences, and partner testing. Finally, it gathered clients' suggestions for improvements and concerns, aiming to inform strategies for better engagement and treatment outcomes.

The FGD guide for service providers and community health workers was a comprehensive tool used to explore their perspectives, experiences, and challenges in implementing the test and treat strategy for HIV in South West Cameroon. It covered key topics such as community and facility messaging about lifelong ART, healthcare workers' attitudes, client initiation, adherence, retention, disclosure, partner involvement, and facility policies. The guide also examined staff training, support systems like peer educators and support groups, and infrastructure adequacy. It gathered insights on successes, obstacles, and areas for improvement in delivering HIV services, with questions about community engagement and innovative approaches like family models. The discussion aimed to identify ways to strengthen health facility and community services to improve treatment outcomes and optimize the strategy's implementation.

Techniques to minimize bias/errors

Participants were selected using purposive sampling to ensure inclusion of individuals with relevant experiences, with recruitment continuing until data saturation was achieved. Ethical standards were strictly followed, including voluntary participation, informed consent, and confidentiality. Research Assistants were thoroughly trained, supervised, and guided by a standardized protocol to ensure consistency and minimize errors in data collection. A pilot study was conducted to refine procedures, and standardized methods were applied throughout to enhance the credibility and reliability of the findings.

Data Analysis

Data were analyzed using thematic analysis [10] in MAXDQA.

An interpretive approach was applied, allowing for both inductive and deductive coding. Themes were developed iteratively and interpreted through theoretical frameworks.

Ethical Considerations

Approval to carry out this study was obtained from the Institutional Review Board (IRB) of the University of Bamenda (Ref No 2022/0779H/Uba/IRB). Administrative clearance was obtained from the Regional Delegation of Public Health for the South West Region, facilitated by the regional delegation office for research (Ref No R11/MINSANTE/SWR/RDPH/PS/988/81). District health services and hospital clearances were obtained from all the districts and health facilities involved in the study. Written informed consent was obtained from all the adult patients, assent from adolescents 15-19 years, as well as parental consent for these adolescents, respectively, before any data collection procedure started.

Results

Participants and distribution

Table 1 presents the distribution of the IDI participants by health facility and sex across selected health facilities in the South West Region of Cameroon. A total of 18 participants were interviewed, comprising 5 males and 13 females, indicating a higher representation of female participants in the study. At the facility level, Buea Regional Hospital, Muyuka District Hospital, and Limbe Regional Hospital each contributed four participants, while Mount Mary Hospital and Tiko Central Clinic contributed three participants each. Female participants were represented in all facilities, with Tiko Central Clinic recording only female participants (n = 3). Male participation was limited to four facilities, with the highest number recorded at Muyuka District Hospital (n = 2). Overall, the sex distribution reflects a predominance of female respondents, which is consistent with the higher utilization of HIV services by women in the region. The spread of participants across multiple facilities ensured diverse perspectives on the implementation of the Test-and-Treat model, thereby strengthening the credibility and contextual relevance of the qualitative findings.

Table 1: Distribution of IDI participants by site.

Health facility Code	Health facility name	Males (n)	Female (n)	Total (n)
HF101	Buea Regional Hospital	1	3	4
HF102	Mount Mary Hospital	1	2	3
HF401	Muyuka District hospital	2	2	4
HF601	Limbe Reginal Hospital	1	3	4
HF702	Tiko Central Clinic	0	3	3
Total		**5**	**13**	**18**

Table 2 illustrates the distribution of focus group discussion (FGD) participants by health facility and sex across selected health facilities in the South West Region of Cameroon. A total of 37 participants took part in the FGDs, comprising 3 males and 34 females, showing a marked predominance of female participants in the discussions. At the facility level, Muyuka District Hospital recorded the highest number of participants (n = 10), followed by Limbe Regional Hospital (n = 9), Mount Mary Hospital (n = 7), Buea Regional Hospital (n = 6), and Tiko Central Clinic (n = 5). Female participants were represented across all facilities and constituted the majority in every site. Male participation was minimal, with one male participant each from Mount Mary Hospital, Limbe Regional Hospital, and Tiko Central Clinic, while no male participants were recorded at Buea Regional Hospital and Muyuka District Hospital.

Overall, the findings highlight a strong female representation in FGDs, which aligns with the higher engagement of women in HIV care and treatment services in the region. The inclusion of participants from multiple facilities enhanced the diversity of experiences shared, providing rich qualitative insights into the effectiveness of the Test-and-Treat model in the South West Region of Cameroon.

Table 2: Distribution of FGD participants by health facility and sex.

Health facility code	Health facility name	Male (n)	Female (n)	Total (n)
HF101	Buea Regional Hospital	0	6	6
HF102	Mount Mary Hospital	1	6	7
HF401	Muyuka District hospital	0	10	10
HF601	Limbe Reginal Hospital	1	8	9
HF702	Tiko Central Clinic	1	4	5
Total		**3**	**34**	**37**

Emerging themes

Theme 1: Persistent HIV-related stigma

Stigma emerged as a pervasive barrier affecting testing, disclosure, and ART uptake. Participants reported fear of social exclusion and discrimination, leading to delayed engagement with HIV services.

…Yes, I also wanted to raise that issue of stigma. There's problem of denying; there's a challenge of disclosure. And to add to what the other participants just said, that when there is this issue of disclosure now, that will not want to start treatment without talking to my spouse, usually we had cases where the client starts their treatment and is not able to disclose to their partner, we continue counselling… (HF101, P06. Female)

"I hide my medication because I fear neighbors will judge me". "The side effects make me want to stop, but I remind myself that my health depends on it," (HF402, P01, female)

Theme 2: Gendered power relations

Gender norms significantly influenced health-seeking behavior. Women faced constraints related to economic dependency and disclosure, while men were less likely to seek care due to norms around masculinity.

..We also have those who are abused emotionally, somebody who is living with a partner and the partner is not aware of he or her status can hide from the partner. And after some time, the person will not be able to continue because the person is afraid that the partner can see and maybe separate from, from, from he or her. (HF702, P02, female).

Theme 3: Structural and economic barriers

Financial constraints, transportation challenges, and indirect costs limited access to ART services, particularly in rural areas.

...Finances also disturb. Because some of the clients, they don't even have the means to have food. And they think of taking drugs without food. It will be very difficult for them. Some of them are taking traditional medicines. And when they are taking traditional medicines, they will be advised, don't take tablets. And when you are taking tablets, we will also advise them that when you are taking tablets, don't take traditional medicine. So when they go for traditional medicines, they stay away from the tablets… (HF702, P03. Female)

Theme 4: Health system constraints

Participants reported challenges including long waiting times, stock-outs, and inadequate counseling, which affected retention in care.

… There are times that the rooms are counselling, you don't really have a place, within whether it's in the morning or afternoon, you have to do in the session. For example, you find that it is really challenging because you have a client to counsel, you have to do this, you have to do that. The waiting time is usually really too long… (HF101, P04, female)

..some other factors that can cause a client to drop being adhere is sometimes pill burden there's so many clients that they're someone like me, I don't like peers, I hate it So if I'm positive today, I am very sure that I'll be one of those people that will default from it. So pill burden is one of the, one of the challenges. Secondly, um, if you're in a family where everybody's okay and you're the only one taking drugs, sometimes you feel discouraged. If you feel like you're the outcast of that family. Some people stop taking drugs so that they should kill themselves, end their lives, so that HIV will kill them finally. So they stop taking drugs so that HIV should kill them faster. And you know HIV cannot kill you faster. Sometimes it can take you very, very longer than you think… (HF702, PP05, Male)

Theme 5: Coping and resilience

Despite challenges, participants demonstrated resilience through peer support, community networks, and adaptive coping strategies.

At the community level, respondents emphasized intensified sensitization campaigns. “We need continuous education about HIV, especially to dispel misconceptions that HIV is a death sentence,”. Engaging religious and traditional leaders is also vital to changing perceptions and reducing stigma. “If pastors and elders talk openly about HIV, more people will accept testing and treatment,” he added. (HF601, P08, Female).

…Low participation in support groups is largely driven by limited activities and unmet expectations. Many community members associate support groups with tangible benefits such as skills training or livelihood activities, and when these are absent, interest declines. Additionally, lack of resources and funding limits the ability of groups to offer meaningful activities, making recruitment difficult. Comparisons with more active support groups in other regions further reduce motivation to join, as local groups are perceived as less beneficial.… (HF401, P08, Female)

…Improving treatment outcomes requires strengthening health facility infrastructure and service delivery systems. Making available dedicated and private counseling spaces to ensure confidentiality and effective client engagement, and improve quality of care. Additionally, long waiting times due to poor clinic organization and limited staff capacity discourage clients from returning for services. Strengthening appointment systems, workflow efficiency, and staffing is key. At the same time, support groups are critical in reinforcing adherence, as they provide peer comparison, motivation, and accountability helping clients recognize the importance of consistent medication use and preventing hidden non-adherence despite regular clinic attendance (HF401, P11, Female).

…Long waiting times at health facilities significantly discourage client engagement and negatively affect service uptake, including ART pick-up and viral load testing. Clients often spend several hours before being attended to, which reduces motivation to return for care. Delays caused by poor organization, file management challenges, and limited staffing further compound the issue. Participants noted that reducing waiting time through more efficient service delivery systems would improve client satisfaction, increase retention, and ultimately enhance outcomes under the test-and-treat model (HF101, P05, Female)

…Moreover, the training of healthcare workers is generally adequate but requires regular refreshers to keep up with updates in the test and treat guidelines. one supervisor remarked. Our staff are trained, but ongoing capacity building is essential to maintain quality. Yes, we, can say we have been trained, but we know knowledge needs updates on, uh, you need updates on almost a daily base. So, if there is new information based on the test and treat that has to be passed down, I think we will be glad to welcome it to abreast our duties… (HF701, P01, Female)

Multi-month dispensing is a very effective model for improving retention and reducing frequent facility visits, but it requires sufficient stock of all medication lines, including second- and third-line treatments, to avoid discouraging clients. Currently, clients on second-line therapy often receive only one month of medication, unlike first-line clients who receive six months, leading to extra travel and frustration. Facility infrastructure also needs improvement, with at least four dedicated counseling rooms recommended to ensure confidentiality and effective nutritional, clinical, and psychological counseling. Finally, expanding and training community-based organizations (CBOs) for ART dispensation can help decongest treatment centers and make MMD more sustainable for clinically stable, virally suppressed clients… (HF101, P02, Female).

Discussions

This study reveals that the implementation of the Test and Treat strategy is deeply embedded within broader socio-cultural and structural contexts. While the strategy has improved ART initiation rates, its effectiveness is mediated by intersecting forms of inequality.

From a social determinant of health perspective, access to ART is not solely determined by availability of services but by socio-economic conditions, including poverty, education, and social exclusion [6]. The findings demonstrate how structural barriers such as cost and distance interact with stigma to limit access.

The concept of structural violence, as articulated by Paul Farmer, provides a critical lens for understanding how social structures systematically disadvantage certain populations [7]. In this study, health system inefficiencies and socio-economic inequalities function as forms of structural violence that constrain individuals' ability to benefit from Test and Treat.

Furthermore, applying intersectionality theory highlights how gender, HIV status, and socio-economic position intersect to produce layered vulnerabilities [8]. Women's limited autonomy and men's reluctance to seek care reflect deeply embedded gender norms that shape health behaviors.

These findings align with existing literature demonstrating that stigma and gender inequality remain significant barriers to HIV care in sub-Saharan Africa [2,4]. However, this study contributes to the literature by situating these factors within the context of Test and Treat implementation, highlighting the need for integrated approaches.

Importantly, the persistence of stigma within health care settings underscores the need for health system reforms that prioritize patient-centered care and rights-based approaches. Without addressing these systemic issues, the full potential of biomedical strategies such as Test and Treat cannot be realized.

Conclusion and Recommendations

While the Test and Treat strategy has significantly expanded access to ART in the South West Region of Cameroon, its overall effectiveness continues to be constrained by persistent stigma, gender inequalities, and broader structural barriers that limit equitable access and adherence to care. These challenges highlight the need for a more comprehensive and context-sensitive approach to HIV service delivery. Addressing these gaps requires a deliberate shift toward integrated, rights-based, and socially responsive health interventions. This includes strengthening stigma reduction initiatives at both community and facility levels, integrating gender-responsive approaches into HIV programming to address disparities in access and outcomes, improving health system responsiveness and the overall quality of care, and tackling structural barriers through well-designed social protection mechanisms that support vulnerable populations and enhance sustained engagement in treatment.

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