Assessing acceptability and feasibility of provider-initiated HIV testing and counseling in Ghana

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ABSTRACT

In Ghana, HIV voluntary counseling and testing remains poorly utilized. The World Health Organization (WHO) has recommended opt-out, provider-initiated testing and counseling (PITC) in order to increase utilization and earlier intervention. Yet implementation challenges remain in resource-scarce settings. This study sought to better understand the dynamics of providing PITC at Apam Catholic Hospital, a district referral hospital in Ghana. Semi-structured interviews were conducted with healthcare providers and patients exploring attitudes regarding PITC, community stigma, and HIV knowledge. Results showed healthcare providers believed PITC would lead to earlier diagnosis and intervention, but concerns persisted over increased costs. Patients welcomed PITC, but expressed discomfort in opting-out. Patients demonstrated incomplete HIV knowledge and widely believed spiritual healers and prayer can cure the infection. Acceptance of PITC by both healthcare providers and patients remains high, but concerns over resource costs and HIV knowledge persist as challenges.

KEYWORDS: opt-out testing, provider-initiated testing and counseling, HIV knowledge, resource-scarce

INTRODUCTION

More than three decades into the HIV/AIDS epidemic, sub-Saharan Africa (SSA) continues to bear the brunt of transmission, treatment and prevention. As a response to low testing rates and lost opportunities for diagnosis, UNAIDS and the WHO recommended shifting from voluntary counseling and testing (VCT) to opt-out, provider-initiated testing and counseling (PITC).[1] Studies of PITC in SSA implemented either at the national level[2,3] or at the clinic level among tuberculosis patients,[4] pregnant women,[5] general outpatients,[6] and children[7] have so far shown high rates of acceptability. Yet, the majority of studies involve women in antenatal care and therefore might not be generalizable to patients in other clinical settings.[8] Recent population-based surveys in Botswana suggest that only 46% of those infected are aware of their seropositive status.[9] Therefore, an opportunity exists to improve testing coverage.

Implementing PITC on a national scale in resource-scarce countries poses several challenges. Routine testing itself may discourage health-seeking behavior or expose patients to stigma,[10] and implementation requires increased testing supplies, antiretroviral therapy, and linking newly diagnosed patients to treatment.[11] HIV stigma and knowledge influence test-seeking behavior; greater HIV knowledge leads to reduced stigma and improved attitudes towards testing.[12] More research is needed regarding implementation challenges and community input regarding the new policy.[13]

Ghana has a generalized HIV epidemic with prevalence at 2.0%,[14] but has yet to scale PITC nationally. Only about 43% of women and 20% of men have ever received both an HIV test and result, despite most knowing where to obtain a free test.[14] Gaps in HIV knowledge exist; 65% of women and 48% of men believe that HIV can be transmitted through supernatural means,[14] suggesting that a comprehensive understanding of HIV transmission has yet to penetrate into many Ghanaian communities.

To further elucidate the barriers to implementing PITC in Ghana, we investigated patient and healthcare worker attitudes towards PITC testing at Apam Catholic Hospital (ACH). ACH is located in Apam, the capital of the Gomoa West District serving as the primary referral hospital responsible for a catchment area of approximately 135,000 residents, mostly from rural communities.[15] The hospital operates 24 hours a day, has 105 beds, and offers medical, surgical, obstetric and gynecological, and laboratory services. We interviewed patients and healthcare workers about the challenges to implementing PITC. We interviewed patients regarding HIV modes of transmission, testing, and beliefs towards HIV-infected individuals in order to better understand how community HIV knowledge and stigma influence seeking testing and care.

METHODS

Design

We conducted semi-structured interviews with open-ended questions on-site at ACH. Staff interviews focused on existing HIV testing culture and attitudes toward PITC. Patient interviews focused on PITC acceptance and HIV knowledge, particularly regarding transmission and testing practice. Staff interviews were conducted in English. Patient interviews were conducted in Fante with the assistance of a native-Fante speaking interpreter. All interviews were

conducted in private, confidential locations and audio-recorded. The institutional review board of Brown University, Providence, Rhode Island, USA, approved this study.

Protocol

Patients were recruited from the waiting area of the general outpatient clinic after their medical visits to avoid disrupting their care. Hospital staff, including doctors, nurses, lab technicians, and counselors, were approached outside of their hospital working hours to avoid disrupting their work responsibilities. No financial incentives or rewards were provided to participants. Participants were excluded if they were under 18 years old, refused, or lacked the capacity to consent. Verbal informed consent was obtained after explaining the study purpose.

Data Analysis

Audio-recorded interviews were transcribed and transcripts were analyzed for dominant themes. Three members of the research team separately read each transcript, created codes reflective of the responses, and identified representative passages. The team resolved coding discrepancies to maintain consistency, and the major overarching themes were identified.

RESULTS

Eight staff and 25 patient interviews were conducted. **Table 1** shows the demographic characteristics of patients interviewed. The following themes emerged from interviews: PITC acceptability and feasibility; psychosocial fears and stigma as barriers to HIV testing; and limited HIV knowledge.

PITC acceptability and feasibility

Every patient welcomed routine testing. Many patients felt that knowing their serostatus was important because *"if you don't have [the test], you can't protect yourself."* Patients had mixed feelings when asked whether PITC might dissuade hospital visitation, but generally believed that *"If you refuse to come to the hospital, then it depends on you, on your behavior. Maybe you are a fan of [sleeping with] girls, [sleeping with] boys all the time.... If you are not of that behavior…you will come for testing."*

Most patients said they would not feel comfortable refusing HIV testing, fearful of losing services, *"When I refuse, the doctor will also refuse to take care of me."* Others appeared reluctant to challenge their provider, *"The physician knows his job and if he recommends [the test]... you have to agree with him."*

Staff expressed concern over increased resource needs, yet acknowledged that PITC would simplify their work *"because there are people who are walking about who have the virus but they don't know…"* and recognized that *"the prognosis is better [when diagnosed earlier]."*

Table 1. Patient demographics.

Characteristics	Patients (N = 25)	
	No.	%
Sex		
Female	18	72
Male	7	18
Age, y		
18–29	12	48
30–49	6	24
> 50	6	24
Unknown	1	4
Education, y		
None	6	24
1–6	4	16
7–9	8	32
12–10	4	16
> 12	3	12
Previously HIV tested		
Female		
Yes	10	40
No	7	28
Unknown	1	4
Male		
Yes	2	8
No	4	16
Unknown	1	4

Psychosocial fears and stigma

Both patients and staff related the community's deep-seated fears of receiving an positive HIV diagnosis. As one staff explained: *"...the fear is that when it's testing and it's found positive, people will know and he will lose his job.... And his children will also be affected because always people will see his children as being also HIV positive."*

Staff also acknowledged patients' fears: *"They refuse because of privacy issues, especially those who are from Apam here. They think that once they go to the lab to do the test and it's positive, the lab staff or the nurses…will start spreading [the test result]."*

Patients emphasized the ensuing psychological distress more so than physical consequences from receiving a positive diagnosis. As one patient explained, *"Having knowledge about it will kill you faster, so they won't [test] at all."*

Limited knowledge of HIV

Patients demonstrated a limited understanding of HIV. When asked how HIV was transmitted, all patients mentioned sexual intercourse; however, answers varied widely regarding alternatives. Some said through *"the same toothbrush,"* others responded *"they get it through the air,"* and still others believed when *"you drink from the same cup."*

When asked whether they would purchase from a merchant who is HIV positive, 9 (36%) patients said they would not, and an additional ten (40%) said that they would only buy pre-packaged items, a decision commonly influenced by a fear that the *"food would become infected."*

A majority believed a spiritual healer or prayer could cure HIV. For some, it was as simple as *"with God everything is possible."* Another patient explained the role of faith in curing HIV, using the metaphor of fixing a broken computer: *"I believe that God is a master healer….When something happens to this laptop…the person can replace the lost item that has been damaged on it. So if God created us, I believe that if something has happened to us, he can diagnose and replace it."*

Several staff voiced concern over the

community's conviction that HIV has a spiritual cure and that spiritual services can present a great expense for patients who *"go and sell their belongings to get money"* to pay the costs. One staff member explained: *"the spiritualist will tell [patients] they should not take any drug, they should only take what [the spiritualist] will give them at that place."* Another described a former patient outcome witnessed as a result of these beliefs: *"She came back very ill, very debilitated, and eventually she died believing it was juju, believing that there was a spiritual force behind her sickness."*

DISCUSSION

Our investigation sought to better understand local perception regarding PITC through interviews with hospital staff and outpatients. While patients expressed concern over receiving a positive HIV diagnosis, for several patients the anticipated emotional, rather than physical, distress instilled greater testing apprehension. Aspects of their fear included stigma from their family and community, a concern aligned with recent assessments documenting only 8% and 14% of women and men in Ghana, respectively, hold attitudes accepting of HIV-infected individuals.[14] Staff also reported that some patients fear staff would discuss their testing result with those in the community. De-incentivized by these perceptions, many prefer to live without confronting their status. It is possible that an understanding of the benefits of HIV therapy has failed to penetrate the community, and attending to this might contribute to reducing fears and lead to higher testing utilization. Staff did not report any breaches of patient confidentiality following testing, so this fear might be a manifestation of their generalized concern of stigma. Nevertheless, people living with HIV/AIDS represent a highly vulnerable population and confidentially should remain a top priority to ensure engagement of care continues.

Despite their fears, every patient interviewed welcomed PITC. While portraying ideal acceptance, almost all patients also expressed discomfort in refusing testing. Consequently, opt-out routine testing in this context might function more like mandatory testing in practice, a policy not supported by WHO.[1] Surveys of patients offered opt-out testing in Democratic Republic of Congo, Malawi, Uganda, and Kenya indicate that patients may not understand or believe that they have the option of refusing an HIV test,[4,16,17,18] underscoring that our findings in Apam are not unique and represent an important policy consideration.

While staff acceptance was tempered by the additional supply costs, most believed that improved outcomes would be realized through earlier diagnosis with PITC.

Inaccurate and incomplete HIV knowledge was a prominent among patients. Many would alter their purchasing habits from HIV-infected merchants, suggesting a measurable negative economic impact to being HIV-positive. Emerging from our interviews was the belief of a cure for HIV through prayer and spiritual healers. Increasingly, Ghanaians report believing HIV has a supernatural etiology with recent assessments noting that 65% of women and 48% of men maintain this belief,[15] up from previous figures of 52% and 40% of women and men, respectively.[19] Routine testing might identify these individuals at earlier disease stages, as has been confirmed elsewhere in SSA.[20] While important to respect local beliefs, education provided during PITC would allow for a stronger understanding of HIV transmission. Health providers can open the door for a discussion about how contemporary medicine can be compatible with traditional practices.

Our findings have limitations. As ACH mostly serves a rural population, our findings might not be representative of urban settings. Further, as this was a qualitative study, social desirability bias might have influenced responses. We do not believe these issues have compromised the study's validity, only its generalizability.

PITC had broad acceptability by both patients and staff; however, logistical challenges remain to transition from VCT because of increased resource needs. A reluctance to opt-out of HIV testing begs the question whether testing would be mandatory in practice. Incomplete HIV knowledge, particularly around transmission and spirituality, continue to have consequence for health-seeking behavior. Further research examining community healthcare-seeking behavior, particularly based on spiritual beliefs, might help elucidate the best means of improving patient HIV education so that PITC can fully realize its benefit to reducing the HIV/AIDS burden.

Acknowledgments

This work was supported by the Summer Assistantship Grant Program of the Warren Alpert Medical School. We would like to thank at ACH Rev. Sister Mary Magdalene who helped in local coordination and Augustine Essel who helped with interpretation. We would also like to thank all the participants of this study for providing to us their time, experiences, and insights.

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