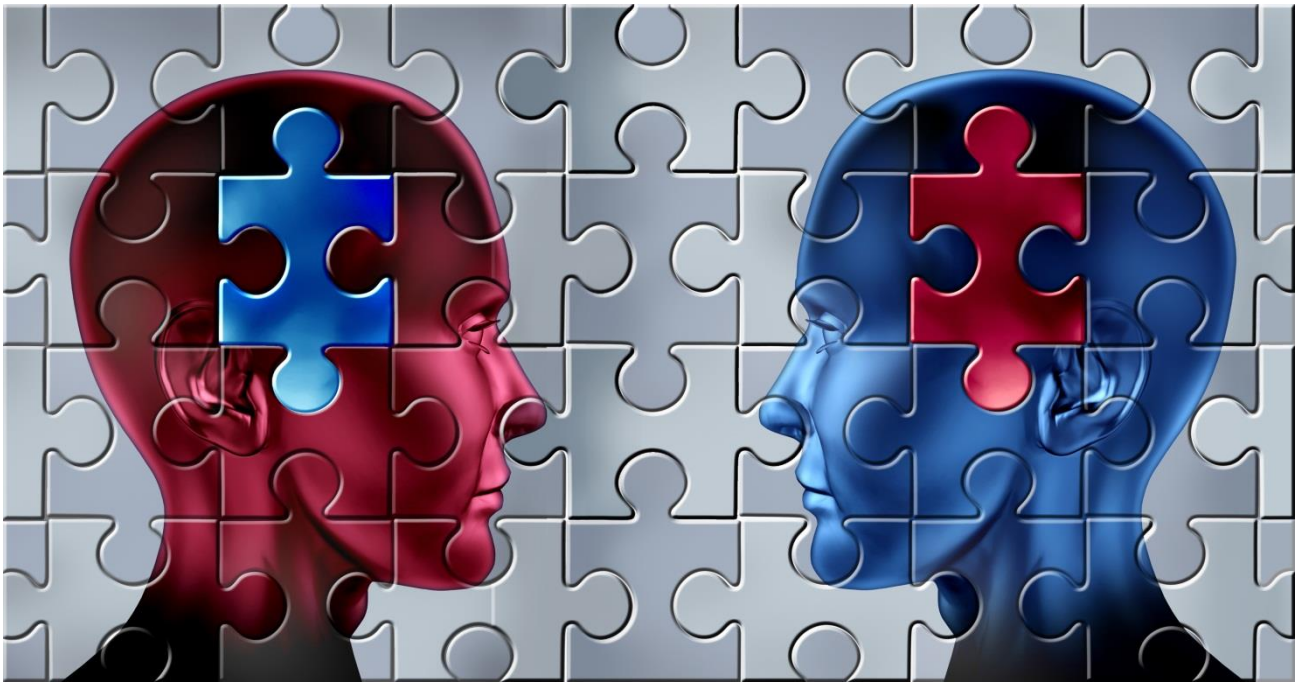

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Empowering Yoruba Women in Nigeria to Prevent HIV/AIDS: The Relative Significance of Behavioural and Social Determinant Models

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Abstract

This article uncovers the relevance to practice of behavioural and social determinant models of HIV prevention among Yoruba women in Nigeria. Exploring what factors influence health behaviour in heterosexual relationships, the key question raised was whether the women's experiences support the assumptions and prescriptions for action of these two dominant public health models. Eight focus group discussions and 39 in-depth interviews were conducted, which involved 121 women and men who were chosen purposefully and through self-nomination technique. This study revealed that the women were very much constrained by social environments in negotiating safe sex, despite having at least a basic knowledge of HIV prevention. Limiting factors included the fear of relationship breakup, economic dependence, violence, and the difficulties in justifying why they feel the need to insist on condom use, especially since initiating condom use is antithetical to trust. Furthermore, evidence suggested that improved access to income and education might be vital but it does not automatically constitute a direct means of empowering women to prevent HIV infection. The limitations of both behavioural and social determinants perspectives thus suggests the need for a combination prevention model, which focuses on how social, behavioural and biomedical factors overlap in shaping health outcomes.

Keywords

HIV/AIDS prevention, Yoruba women, Nigeria, social determinants model, behavioural model

Introduction

In Nigeria, 88 per cent of women and 94 per cent of men have heard about HIV/AIDS (National Population Commission [NPC] and ICF Macro, 2009). Despite this awareness, this country has the second largest population of infected people globally and women remain mostly disadvantaged and susceptible (United Nations General Assembly Special Session, 2010). After decades of seeking answers to HIV problems, the challenges are still daunting mainly because of a lack of clarity about how to address the needs of different populations. The global response remains hampered as policy makers, experts, and donors continue to

hold different views of how to achieve effective interventions. To understand why current interventions have failed to deliver effective outcomes among Yoruba women in Nigeria, I explored the factors that make them more vulnerable, and whether the solutions lie in the two dominant but seemingly contrasting perspectives that shape HIV policies and strategies, as underpinned by a behavioural model (BM) and a social determinants model (SDM).

On philosophical and scientific grounds, proponents of SDM hold that social inequalities cause and closely mirror health inequalities within and between countries (Gupta *et al*., 2008; Marmot *et al*., 2008). This model deploys a 'functional' meaning of health and illness that portrays health inequalities a consequence of social hierarchies that follow a social gradient. Deriving its philosophical influence from the principles of social justice (Commission on Social Determinants of Health [CSDH], 2008; Ruger, 2004), SDM is consistent with the theory of justice according to Rawlsian 'liberal' model, which supports the need for socioeconomic and political restructuring that allows more fairness in the distribution of life opportunities (Rawls, 1971). Additionally, the origin of SDM can be traced to social epidemiology, which studies how social environments shape the distribution of health and illnesses among populations (Berkman and Kawachi, 2000).

My assessments of SDM in this article centre particularly on the influential final report of the World Health Organization (WHO) Commission on Social Determinants of Health, which gathered a mass of evidence about how social and structural factors constitute health inequalities within and between countries (CSDH, 2008). One of the main assumptions is that unequal access to power, income, resources, and services, has significant negative implications for health choices, behaviour, and outcomes. Accordingly, SDM prescribes global health reforms that take into account circumstances in which people are born, grow, live, work and age, and how such circumstances influence their health outcomes (Wilkinson and Marmot, 2003; CSDH, 2008).

Sub Saharan Africa (SSA), in particular, remains disproportionately affected considering the global inequalities in HIV incidence. In 2011, this region accounted for 69% of the global population of people with HIV/AIDS, 70% of HIV related deaths, and 80% of all people with both tuberculosis and HIV (Joint United Nations Programme on HIV/AIDS [UNAIDS], 2012). In terms of gender distributions, women and girls are still mostly affected, accounting for 58% of the infected in this region and bearing the greatest burden of care (UNAIDS, 2012). In spite of this challenge, the global responses to HIV/AIDS still foster inequalities, as many observers have noted. Lisk (2010) explained that although the burden of HIV/AIDS is

concentrated in developing countries of the South, the current global health system still favour resource rich countries of the North, not only in terms of access to treatment and funding, but also in relation to decision-making authority within key global institutions.

Unlike SDM, which focuses on how socioeconomic and political environments shape health outcomes, BM focuses on how individuals make calculated decisions about their health behaviour. Significantly influenced by Skinner's work on operant conditioning (Skinner, 1938), BM attempts to make predictions about observable human health behaviour, which could be rigorously examined through scientific investigations. Although there are different strands of BM, they all share assumptions that support individual level interventions drawing on the argument that: (1) health behaviour is a matter of rational choices; (2) it is predictable based on peoples' knowledge of the consequences of their actions and the degree to which they value health (Rimer and Glanz, 2005; Rosenstock *et al*., 1994; Fishbein, 2000; Fishbein, 2008; Prochaska *et al*., 2008). Accordingly, HIV policies shaped by BM are often sympathetic to public health communications designed to heighten people's perception of their vulnerability to infection, and to those that raise awareness about the severity of AIDS and benefits of risk reducing behaviour (Blumberg, 2000).

Both SDM and BM have drawn criticisms. According to critics, SDM lacks a clear functional definition, which can translate to rigorous evaluations of health programmes that follow the prescriptions of the model (Moulin, 2008; Kim *et al*., 2008; Argemia *et al*. 2012; Navarro, 2009; Stevens, 2009; Bambra, *et al*., 2010). In support, some writers have argued that it is inaccurate to consider poverty or socioeconomic inequality a direct driver of HIV/AIDS (Shelton *et al*., 2005; Gillespie *et al*., 2007). Likewise, critics of BM have argued that it is narrow, mechanistic, and only responding to a fraction of populations' health needs by failing to take into account causal pathways to health that have their roots in social, economic, legal, and political structures (Blas *et al*., 2008; Amaro *et al*., 2001). To contribute to this debate, I explore in this article whether the participants' behaviour, in preventing HIV/AIDS, supports the assumptions and prescriptions for action of both models.

Methods

A qualitative approach was the most appropriate in conducting this study (Rubin and Rubin, 2012) because key to my objectives was the need to elicit data that were capable of detailing people's experiences and practices in relation to HIV prevention **(**Power, 1998**)**.

Ethnographic method was used to explore how the participants make meanings of their everyday life (Fetterman, 1998) in heterosexual relationships. A pilot was conducted, which shaped the main investigation process. The study was conducted among Yoruba people in Osun state, Nigeria, and data were obtained through focus group discussions (FGDs) and in-depth interviews (IDIs) (Rubin and Rubin, 2012; Stewart *et al*., 2007). On average, each FGD took one and half hours, while an IDI took one hour. The investigation process involved digital voice recording and note taking. Altogether, there were 121 women and men participants (see table 1 below), who were recruited from their houses, market places, religious, community and health centres, an academic institution, public offices, private business centres, and farm areas.

Purposeful sampling and self-nomination technique were used in selecting the participants because these methods allowed an ethical investigation process and efficient access (Dane, 1990). Given the criticism that selection techniques in qualitative studies are prone to bias because of over reliance on purposeful sampling (Watters and Biernacki, 1989), I introduced stratification to the sampling process by dividing the participants into six respondent groups. These included low and high socioeconomic status women, low and high socioeconomic status men, HIV positive people, and local HIV prevention workers. With a clear definition of eligibility for participating in each group, this approach supported eliciting data from samples that were representative of adult populations in the study area, in terms of gender, HIV/AIDS experiences, and socioeconomic classifications. Those identified as low socioeconomic status participants had little or no education, and a low income. The high socioeconomic status participants included those with at least a university degree and a relatively high income. Ages in all the groups ranged from 20 to 71.

Those identified as HIV positive were recruited from a HIV treatment centre and a local HIV organization. The selection process was self-nomination, in which individuals indicated their willingness to participate. For ethical reasons, the participants in this group were not contacted until after they had given informed consent to participate. The officials at the centres organized the consent process. They were specifically told not to make people feel pushed to participate in the study (Economic and Social Research Council [ESRC], 2012).

All the participants shared two characteristics; they were in long-term heterosexual relationships and had at least a basic knowledge of HIV prevention. Because this was a sensitive study, with the potential to cause the participants harm or offense (Lee, 1999), and because of the challenges of obtaining permissions from gatekeepers (ESRC, 2012), no

persons below the age of 18 were included. By explaining to them in detail the nature of this study and my responsibility to protect their confidentiality, all the participants were supported to make informed decision whether to participate or not (Wiles *et al*., 2006). The FGDs was conducted in enclosed spaces, which the participants and I considered safe and suitable. A minivan was used as a mobile interviewing space for the IDIs. This strategy allowed effective logistics and privacy. Data analysis involved translating most of the data from Yoruba to English. After examining the transcript and identifying themes, which had emerged from the data, NVivo 8 was used in coding and categorising the data under different themes (Welsh, 2002). A limitation of this study might be its reliance on data obtained through self-reports, given that individuals often have the tendency to misreport their true experiences in sexual relationships (Mongkuo *et al*., 2010).

Results and Discussion

To present a clearer analysis of whether the women's experiences support SDM and BM, it is appropriate to present the results and discussion together. The participants are identified by the groups they belong to protect confidentiality: low status woman (LSW), high status woman (HSW), low status man (LSM), high status man (HSM), HIV positive (HP) and HIV prevention worker (HPW). The analysis is divided into two main themes, which are social determinants of HIV/AIDS and behavioural determinants of HIV/AIDS.

Social determinants of HIV/AIDS

This section indicates various social factors that shape the behaviour of Yoruba women in relation to HIV prevention. These factors are categorised into seven sub-themes, which are; permanence of relationships, trust, economic dependence, fear of violence, religion and gender roles, culture of silence about sex, and desire for fertility. These factors are discussed below.

Permanence of relationships: Discussing their views and experiences about sex in a regular heterosexual relationship, all the respondents indicated that a breakup is the most likely consequence if a woman attempts to exercise a greater degree of control over her sex life. This is a hidden factor, which writers rarely discuss in HIV literature and yet is capable of constraining women's ability to prevent HIV infection. Because people place so much value on permanence of relationships in this society, women are socially constrained either in

terms of exercising control over their sex lives or in deciding to leave a relationship they consider harmful. Discussing her experience, a LSW said that, 'I have never tried to make independent decisions about my sexual and reproductive life.' Her reason was that, 'I do not think it's wise for me to push my husband to other women, people will blame me.' To exercise such control, she suggested that her society would consider her actions opposite to cultural expectations about women's gender roles, which include satisfying partner's sexual preferences. Most of the low status women indicated that they shared this experience when they said that, 'it is difficult to initiate or insist on condom use' with their partners, even when they had doubts about partner's sexual fidelity.

Given that most of the low status women were economically dependent on their partners, I initially held the view that they were actually concerned about the economic consequences of relationship breakup rather than worried about breakup itself. To understand the significance of this social factor, I investigated how it affects the behaviour of the high status women. Evidence showed that they were constrained in a similar manner even though they seemed to be economically independent. To experience a breakup is a serious concern for all the women because of the social implications. A HSW stated, 'the Bible says divorce is a sin,' and thus suggested that she would avoid any actions that could lead to this, including exercising control over her sex life, which is necessary for women to reduce their vulnerability to HIV infection. Besides religious factors, relationship breakups often attract undesirable labelling in this society, as another HSW said:

> Even as a university lecturer, I cannot say that I have control over my sex life. You know people would scare you when they say, "look at that professor, she was left by her husband because she was demanding gender equality." This is how people stigmatise divorced women in our society.

Sharing her experience, a HSW corroborated the earlier comments. She had separated from her husband because, 'he wanted me to accept his infidelity as something normal for men and was therefore exposing me to HIV infection.' She explained that, 'our relatives and friends criticised and mistreated me for taking this action.' While justifying her action, she said, 'this is a very difficult path to take but we must make our society accept that women should not be compelled to stay in relationships that endanger their lives.' Unable to do the same, another

HSW stated that she knew the danger of unsafe sex. However, 'there are many girls out there who are ready to do whatever men want, so why should I drive mine away' by trying to insist on condom use. These women did not suggest to me that they feared relationship breakups more than the risks of HIV infection. However, their comments illustrate that social values and traditions are capable of constraining women in their efforts to prevent HIV/AIDS. This evidence is consistent with SDM by suggesting that it is inaccurate to limit women's sexual health behaviour to a rational choice perspective, as it is the case that social environments often play a major role in shaping their behaviour. Because of her limitation in exercising a greater degree of control over her sex life, a LSW said that, 'all I can do is to trust that he would not bring any disease to me.'

Trust: This emerged as another key social factor that constrains the ability of Yoruba women to undertake risk-reducing behaviour. The social context in this society encourages partners in monogamous marital relationships to have shared expectations about trust unless there is concrete evidence of unfaithfulness. Such expectations, however, have serious implications for HIV transmission and infection in terms of fostering false hope about individual's vulnerability (Bowleg *et al*., 2000; Sobo, 1995). For example, A LSM said that, 'I do not use condoms if I trust a woman.' In addition, all the participants who were identified as HIV free expressed that they would normally expect their partners to consider unprotected sex with them a risk free practice. For that reason, most of them said that they would construe condom initiation by a long-term partner as an indication of concerns about their HIV status. However, unlike men, onus is usually on women to justify why they feel the need to avoid unprotected sex. The acceptable justification is to provide concrete evidence that support claims. Because it is difficult to obtain such evidence, women in this society are vulnerable to HIV infection, a HSW indicated:

> No matter how empowered we are as women, and how skilfully we can negotiate, it is not easy to insist on condom use, even when we think we are at risk. From my own experience, I know that men are more likely to deny having affairs but they expect us to trust them.

A LSW agreed to the previous comment by saying that, 'I am faithful to my partner but I do not know what he does outside, so there is nothing I can do.' This finding indicates the limitations of the ABC (Abstinence, Being Faithful, Condomise) strategy as underpinned by BM of HIV prevention. According to critics, this strategy has failed to take into account underlying contextual factors outside individuals' control that make monogamous women in marital relationships vulnerable to infection (Murphy *et al*., 2006). Sharing her personal experience, a HP woman illustrated how expectations about trust in sexual relationships could increase women's vulnerability to HIV/AIDS: 'My husband kept his HIV status secret from me until his death. I only saw his treatment card after his death.' This woman indicated that she was faithful to her partner. However, she was infected because of trust and lack of concrete evidence that HIV infection was imminent by having unprotected sex with him.

Supported by findings from this study, literature has shown that 81 percent of women in Nigeria would refuse sexual relationships with a partner known to have sexually transmittable infections (NPC and ICF Macro, 2009). This implies that encouraging partners in long-term relationships to test and disclose status can give women the real empowerment to prevent HIV. A LSW said that, 'no matter what the consequences might be, if I know that my husband has HIV, I will insist that he uses condoms before having sex with me.' She added that, 'if he refuses, I will never allow him to sleep with me.' Sharing a similar view, a HSW stated, 'If I have compelling evidence that my husband has HIV, I will be very serious about keeping myself safe.' These comments seem to support the assumptions of BM that people would undertake recommended behaviour if they understand the severity of a health problem and value health (Glanz *et al*., 2002). However, the problem is that these women also indicated that they were unlikely to insist on condom use based on suspicion alone. Thus, vulnerable individuals could be at risk for as long as they are unable to prove that their partners are exposing them to HIV infection. The main point therefore is that conformity to social expectations can be a risk factor, especially regarding the issue of trust in sexual relationships. This finding raises questions about whether HIV prevention programmes should support the culture of suspicion as part of the strategy to encourage women to anticipate risks. This would require extensive research to understand the wider implications for women's wellbeing.

Economic dependence: Evidence also emerged that this factor was a concern shared by all the low status women, and possibly the most significant constraining factor. As a LSW

indicated, an attempt to exercise control over her sex life could lead to abandonment, in which 'my husband could ask me to pack out of our house.' While reflecting on the possible economic implications, she said that, 'I would not be able to cope on my own,' dealing with her financial needs and those of her children. George and Jaswal in a study of low income women in India (as cited in Gupta, 2002) have indicated that disadvantaged women are more likely to be worried about the economic implications of leaving a relationship that they consider harmful than the health risks of staying in such a relationship.

Corroborating this evidence, most of the men in this study indicated that they would normally exploit their position as the breadwinner to force their sexual preferences on their partners. While they concurred that, 'decision making is men's prerogative', they also considered the sharing of power and control with women in sexual relationships unacceptable. A HSM added, 'No, my decisions would always override her decisions.' Although economic empowerment might be crucial for women to exercise a greater degree of control over their sex lives, investigations with the high status women suggested that access to economic power does not automatically constitute a direct means of empowering them to prevent HIV/AIDS. For example, a HSW said:

> It is difficult to insist on condom use but more difficult to abstain from sex as a married woman. Although condom use might be the best mean to protect myself, this is only possible if my husband agrees.

Supporting the above comment which suggests that women cannot be empowered unless men are involved, a HPW stated that, '100 percent of our female clients said they could not insist on condom use when their partners refused.' This finding raises caution about the assumptions of SDM, which suggests that improved access to power, income, resources, and services, would make a big difference to women's health choices, behaviour, and outcomes. It is important that improved access to economic power is not mistaken as empowerment. Instead, the focus should be on whether women are able to use their access to life opportunities to achieve substantive freedom and control over their lives (Sen, 2001), without the fear of consequences, such as intimate partner violence, which is another major constraining factor.

Fear of violence: Violence against women is a violation of their human rights, which has serious implications for their health outcomes. For most of the women participants, being resolute about condom use in their sexual relationships is more likely to attract violence from partners. A LSW who had experienced such violence stated that, 'there would be trouble again if I tell my husband that I will not allow him to have sex with me unless he uses condoms.' She recalled and said that, 'my husband did not beat me because I asked him if he was having affairs,' but he turned violent because, 'I refused to have sex with him to protect myself from HIV.' This woman indicated that her experience with violence is such a strong force that has been constraining her ability to make the right health choices. This finding weakens the rational choice assumptions of BM. Similarly, a HSW in her account indicated that there is a strong connection between gender violence and women's inability to exercise control over their lives:

> My husband had abused me physically and this experience has affected my political career. He did not want me in politics because he was concerned that I might have affairs with my colleagues. I secretly joined a political party without his permission. When he discovered, he beat me badly. After much pleading, he eventually allowed me to join again, although with a serious condition. I agreed to his condition that, "if I see you having affairs, I will send you out of this house." This means that I would be denied access to our children and whatever assets we have both acquired. In spite of this condition, I am still restricted in my everyday life and this prevents me from participating effectively in political activities.

With this experience, this woman indicated that she could not exercise a greater degree of control over her sex life. Literature supports that violence or threat of it remains a major social factor in intimate sexual relationships that increases women's vulnerability to HIV infection (Amaro, 2000; Maman *et al*., 2002; Jewkes *et al*., 2010). Contrary to the assumptions of BM, this study supports the view that women's sexual health behaviour and their experiences in gender relations should not be isolated from the wider context of social environments. In particular, it emerged that religious environments contribute to why Yoruba women are vulnerable to gender violence and HIV infection.

Religion and gender roles: All the participants indicated that their religious environment play a significant role in shaping women's sexual behaviour to fit with men's preferences. A few women expressed strong desire for a change. A HSW stated:

> They preach in mosques and churches that we should submit to our husbands. They expect us to put up with unpleasant situations. This is unfair and I think we should be able to insist on our rights.

However, many proposed a less aggressive alternative, as a HSW said, 'in Africa we are very religious, so I will keep praying to God that I want my husband to change but I cannot insist on condom use.' For many women in a similar context, acceptance of male dominance, as their religions and tradition stipulate, is necessary to achieve a degree of meaningful life (Jewkes and Morrell, 2012). Comments from some of the men corroborate the indications that religious ideologies contribute to why women are vulnerable to HIV infection. A LSM said:

> A married woman does not have any right to refuse sex whenever her husband demands. If she does, Quran specifies that *Malaikas* [angels] would be angry with such a woman for as long as her husband is angry with her.

In support of SDM, this finding indicates that HIV programmes need to recognise the roles religious environments play in shaping women's sexual behaviour. What is more, some of the women indicated that they had internalized such a religious ideology as they expressed the belief that gender equality in sexual relationships is a utopian concept, 'God did not make men and women equal,' a HSW said. She added:

> You want to talk about feminism. I think it is inappropriate for women to demand equality with men. Since God did not design the world to be like that, such equality will be impossible to achieve. Besides, there would be no peace in households where women demand equality with men.

The acceptance and internalization of such gender stereotype would mean that many women in this society are unlikely to be willing to defend their rights to exercise control over their sex lives. Thus, HIV programmes targeting this society must be designed to recognise that women are sometimes both victims and active promoters of the gender inequality and other cultural practices that disadvantage women (Jewkes and Morrell, 2012; O'Connor and Drury, 1998; Shneider, 2004).

Culture of silence about sex: This is a widely acceptable cultural phenomenon among the Yoruba people, which seems to weaken the prescriptions of BM on HIV prevention. BM is sympathetic to public discussions about sex and condom use in the form of health promotion. On the contrary, as influenced by the culture of silence about sex, most of the participants considered open discussions about sex offensive, immoral, and tantamount to fostering promiscuity and reckless sexual behaviour, especially among young people. A HSW said that,

> Sex is a secret affair and it should remain so. However, it is a shame that HIV programmes are too explicit in disclosing sexual information. I think it is more important to teach singles to abstain from sex, and married people to be faithful to their partners.

The participants did not only indicate that there was a widespread belief that condoms equates with promiscuity or unfaithfulness, they also suggested that the possession of or public discussions about condoms attract social stigma. In view of that, they acknowledged that this factor contributes to why people avoid using condoms. According to a HSM, 'I would feel ashamed to go and buy condoms, even if I intended to use them with my wife.' To reduce the stigma associated with the possession of condoms, another HSM stated that local names have been created for them, '*fere* daddy' (daddy's balloon), '*agbe ojo* (rain coat/umbrella), and '*kini yen*' (that thing). Yet there is widespread antipathy to explicit communication about sex and condoms because of the perception that it undermines their tradition, moral values, and religious principles. Literature has shown that women and girls are more disadvantaged by this culture of silence about sex (WHO, 2009). Conformity to societal expectations means that they are more likely to be ignorant of basic information

about sexual and reproductive health. Therefore, to achieve effective communications about HIV/AIDS programmes needs to be more sensitive to social and cultural elements.

Desire for fertility: This is another major factor, which contributes to HIV incidence among Yoruba women. In many African societies, having a biological child is an important phase of life. People regard this as a status symbol with high social ranking (Doyal and Anderson, 2005). To demonstrate their fecundity, in conformity to societal expectations, women of reproductive age unavoidably have to engage in unprotected sex. As one the LSW stated, 'It would be difficult for me to insist on condom use because I am trying to have a child.' This woman's desire for fertility means avoidance of condom use, which in turn, could increase her vulnerability to HIV infection, especially if her partner engages in high-risk behaviour (United Nations Secretariat, 2002). As an example of how factors outside women's control influence their sexual behaviour, this finding does not support the assumptions of BM. Considering the findings above, it begs the question whether Yoruba women have the capacity to make free health choices about HIV prevention even though there are social and structural barriers. This statement is explored further in the following section.

Behavioural determinants of HIV/AIDS

Discussions in this section suggests that it is not always that case Yoruba women are not capable of making free choices about their sexual behaviour, thus weakening the assumptions of SDM. In addition, the participants indicated the roles of biology in shaping sexual behaviour.

Condoms avoidance to maximize sexual satisfaction: A study has indicated that consistent use of condoms could deliver 80 percent reduction in HIV incidence (Wilkinson, 2002), which means this is still the most effective approach to preventing sexually transmittable infection. However, ample evidence exists that many people, women and men, avoid using condoms because of the perception that they reduce sexual satisfaction (Higgins *et al*., 2010). In support of BM, findings from this study have also shown that avoidance of condoms is a calculated choice that many Yoruba people make to achieve undiminished sexual satisfaction. Discussing this issue, a LSM said that,

> I enjoy sex when it is flesh to flesh. Whenever I use a condom, it feels as if I am having sex with a plastic. My wife always told me not to use it because she experiences the same feelings.

In suggesting that his partner is an active player in deciding whether to use condoms or not, this man's comment contrast with the vulnerability perspective of SDM, which suggests that women's inability to negotiate condom use is primarily a result of inequality in gender power relations (Higgins *et al*., 2010). Corroborating the evidence that women sometimes make free choices regarding condom use, a LSW said to me that, 'condoms have holes in them, therefore I think there is no point using them if they cannot guarantee a full protection.' In this case, it is reasonable to argue, in support of BM, that access to accurate information about condoms and HIV prevention will encourage such a woman to engage in risk-reducing behaviour.

Fear of unwanted pregnancy: More evidence emerged of how some of the women exercise control over their sex lives as a LSW stated that,

> I always use condoms with my boyfriend to avoid an unwanted pregnancy. We both agreed that no condoms no sex until we are married. I do not want to put my parents to shame. Sometimes he would ask for sex without condoms, especially during my safe period, but I always refused.

In this context, the use of condom seems to be synonymous to birth control rather than a means to prevent sexually transmittable infections. Nonetheless, it is important to note that this woman indicated that she was able to make free choices about her sex life. As such, her comment strengthens BM by implying that women sometimes play active roles in deciding whether to use condoms or not. Hence, it can be a difficult task to ascertain when structure or agency is dominant in shaping women's sexual health behaviour. Besides behavioural and social determinants, the participants indicated that biology also play significant roles in shaping sexual behaviour.

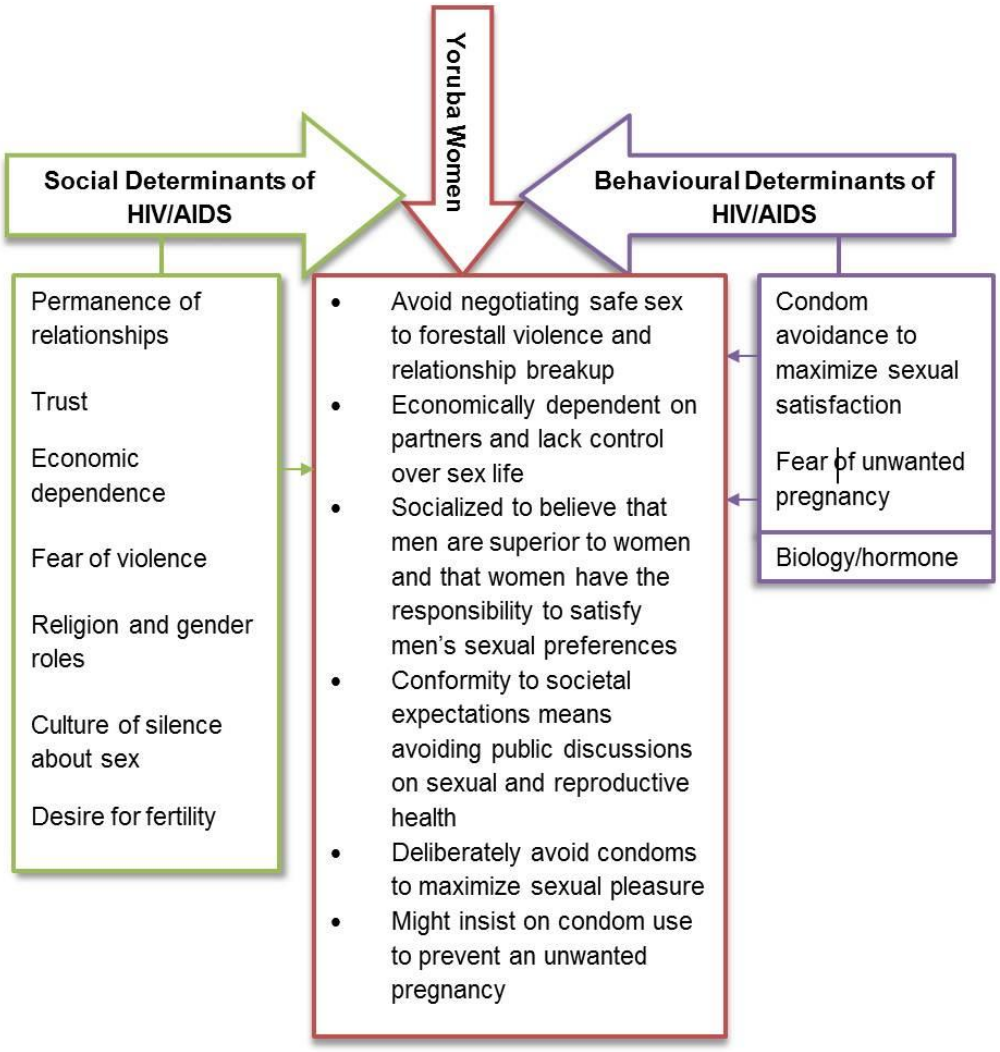

Figure 1: A Summary of the Findings

Human biology and sex behaviour: Some of the participants, men in particular, indicated that condom use is not a decision that they always have control over. According to a HSM, 'the momentary pressure experienced before a sexual intercourse does not give room for negotiating condom use.' Many of the participants intended to suggest that because of their biology, they often behave in an instinctive manner, with little or no control over their actions when sexually aroused. However, because this is a subjective experience, which varies between individuals, it would be difficult to measure the degree to which it is true that hormonal pressure limits individual's ability to use condoms.

Old age is another biological factor that some of the men highlighted as a limitation in prevention HIV. Without a clinical history of erectile disorder, a 61 year old LSM said:

> It is normal for older men to have trouble with erections. Without a sustainable erection, how could I use a condom? The last time I tried using one, I felt embarrassed as my partner watched me struggling. Before I could put it on, my thing [penis] became soft.

As some of the participants have shown that condoms might not be the appropriate method for HIV prevention among older men, consequently, it might be difficult for women to negotiate condom use with such men.

Conclusion

In reference to the United Nations Millennium Development Goals, there are worldwide acknowledgements that women in SSA need to be empowered to reduce their susceptibility to HIV/AIDS (United Nations, 2007). The question remains, how could they be empowered? As illustrated in this article, the experiences of the Yoruba women have exposed the limitations of both BM and SDM, which means these models are not exclusively accurate in prescribing how to empower such women to prevent HIV/AIDS. Clearly, access to information and education is not enough. Despite having at least a basic knowledge of HIV prevention, most of the participants indicated that their sexual behaviour is inconsistent with this knowledge. Thus, it would be inadequate to limit programmes to behavioural interventions. Likewise, because access to economic power and higher education did not seem to make a big difference among the high status women in negotiating safe sex with partners, the SDM is weakened.

Given these limitations, it has been suggested that a combination prevention model is a much better alternative (UNAIDS, 2010). This approach requires a simultaneous use of complementary behavioural, biomedical, and social prevention strategies, while focusing on different levels of interventions (individuals and groups), to address the specific but diverse needs of the populations at risk. In the context of Yoruba communities, more needs to be done in terms of providing access to accurate information about HIV prevention. However, because of poor infrastructure, rather than concentrating on conventional mass media programmes, more support should be given to community workers to provide life skills tailored to the needs of individual groups in their communities. In addition, women need to be empowered, but must be supported to define clearly what empowerment means to them.

Such empowerment should take into account factors such as: access to life chances (education and employment); participation in domestic and public decision making process; control over family assets; freedom of movement and association; legal protection against injustice, discrimination, and harmful traditional practices; and guaranteed access to state social securities.

Lastly, there is a case for saying that SDM and BM, as they are currently, do not complement each other because they have different epistemological positions and commit to different policies. Hence, further research is required to understand how they could be developed to complement each other and the extent to which prominence should be given to either in a specific context.

Appendix

Distribution of Respondents

Groups	IDIs	FGDs
Low status women	6	1 (11 women)
High status women	6	1 (11 women)
Low status men	5	1 (10 men)
High status men	5	1 (10 men)
Local HIV/AIDS agencies	7 (4 women, 3 men)	None
HIV positive participants	10 (6 women, 4 men)	2 (10 women, 10 men)
Pilot studies	None	2 (10 women in each)
Total	39 (22 women, 17 men)	8 (52 women, 30 men)

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