ORIGINAL RESEARCH ARTICLE

Coping Strategies of Young Mothers at Risk of HIV/AIDS in the Kassena-Nankana District of Northern Ghana

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ABSTRACT

This qualitative study draws on interpretative principles with emphasis on understanding young mothers' vulnerability to HIV/AIDS and explores coping strategies used to mitigate risk of infection in a poor rural setting of Ghana. Young mothers in their mid-twenties to early thirties and their male partners were purposively selected with the assistance of key informants for repeated semi-structured interviews. Respondents included those in monogamous and polygynous marriages with two or more living children, and those with and without formal education. Young mothers in this study setting are confronted with complex realities as childbearing obligations make protective sex less optional. However, more assertive women insist their husbands use condoms when they perceive themselves at risk. We conclude that the advent of HIV may advance the cause of women's reproductive health empowerment by providing women with very strong reasons to minimize HIV risk within marriage *(Afr J Reprod Health 2009; 13[1]:61-78).*

RÉSUMÉ

Des stratégies adoptées par les jeunes qui risquent d'être séropositives dans le District de Kassena-Nankana du nord du Ghana. Cette étude qualitative se fonde sur les principes interprétatifs en mettant l'accent sur la compréhension de la vulnérabilité des jeunes mères au VIH/SIDA et explore les stratégies adoptées pour atténuer le risque d'infection dans un milieu rural au Ghana. Des jeunes mères qui ont dans les vingt-cinq et celles qui ont un peu plus de trente ans ainsi que leurs partenaires mâles ont été délibérément à l'aide des informateurs de afin d'avoir des interviews semi-structurées répétées. Les interviewés comprenaient ceux qui s'engageaient dans des mariages monogames et polygames et qui avaient deux enfants vivants ou plus et ceux qui sont instruits ou qui ne le sont pas. Des jeunes mères dans ce cadre d'étude font face aux réalités complexes car les obligations de la maternité rend l'acte sexuel protecteur moins facultatif. Néanmoins, les femmes qui sont plus affirmées, insistent pour que leurs maris se servent des préservatifs quand elles s'aperçoivent en danger elles-mêmes. Nous concluons que l'avènement du VIH peut avancer la cause de la santé de reproduction en donnant aux femmes les fortes raisons pour minimiser le risque du VIH au sein du mariage *(Afr J Reprod Health 2009; 13[1]:61-78).*

KEYWORDS: Coping strategies, HIV/AIDS, Northern Ghana, Vulnerability, Young mothers.

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Introduction

Sexually transmitted diseases continue to pose a major health challenge globally and especially in sub-Saharan Africa. According to the World Bank estimates, STIs excluding HIV are responsible for about 17% of the total burden of diseases; and are the second commonest cause of healthy life years lost by women in the 15-44 age groups in developing countries[1]. Out of an estimated 38.6 million people living with HIV globally, 64% (24.5 million) of these are in Sub-Saharan Africa[2]. The disease is thus sapping away the already scarce financial and human resources of the continent. For instance, out of an estimated US$ 20 billion needed for HIV prevention and care in the year 2005, 43% of the amount was needed in sub-Saharan Africa[2]. Sadly, hopes of developing a vaccine, as a panacea to the problem remains uncertain. Thus, prevention remains the most viable option for the control of the disease[3].

It is well known that in Sub-Saharan Africa, heterosexual intercourse remains the main mode of HIV infection. Another unique feature of the HIV profile in the continent is that more women than men continue to be infected. According to a UNAIDS/WHO AIDS Report[2], 57% of the estimated 25.8 million [23.8-28.9 million] people living with HIV are women. More women than men in Africa are thus vulnerable to the disease. Thus contributing to the understanding HIV/AIDS from a gender perspective and role of socio-cultural gender norms within the Africa setting in increasing risks to HIV/AIDS could lead to the design of gender sensitive interventions aimed at slowing down the epidemic in the sub-region.

Socio-cultural factors influence people's attitudes and predispositions towards safer or more risky behaviour[4]. However, sex and sexuality are delicate and hidden issues in many African cultures and research into sexual beliefs and practices is challenging. This study contributes to a greater understanding of vulnerability and protective mechanisms of women in a socially acceptable manner. Anthropological approaches represent a unique and credible opportunity for gathering data on HIV in relation to the family, sexual relations, preventive strategies and strategies for coping with the disease[5].

This qualitative study focuses on coping strategies by young mothers for mitigating the risk of HIV infection in a poor rural district of the Kassena-Nankana of Ghana. It seeks to clarify the role of socio-cultural factors, norms and expectations that determine women's sexual conduct and vulnerability. It aims to achieve a better appreciation of the dominant sexual meaning and their implications for health promotion interventions aimed at minimizing HIV risk related behaviour.

In this study, the central theoretical assumption is that sexual activity is, to a large extent, socially constructed and that all societies mould basic sexual urges for their own social or cultural purposes. Understanding these cultural constructs may explain the vulnerability of young

mothers and the protective strategies that they adopt.

The emphasis on young married mothers is deliberate. In contrast to the huge literature on single women (and men), rather few studies in Africa have focussed on married women. Yet, in mature epidemics, half or more of all HIV infections occur to married people, either because of infection prior to marriage of one partner, or because of marital infidelity. Moreover, the majority of couple infected with HIV are sero-discordant[6]. As uptake of voluntary testing and counselling becomes more widespread, the protective needs of married populations, hitherto badly neglected, will become and even more pressing priority.

Study Context

The study was done in the Kassena-Nankana district of Northern Ghana. The district has a population of 145,000 people and covers an area of 1,675 square kilometres. The district shares borders with Burkina Faso to the north of the country. There are two main ethnic groups namely Kassena (54%) and Nankana (44%). The rest are made up of Buli and other tribes[7]. The district is largely rural (90%) with most people living in compound houses of multiple mud huts in dispersed settlements. About 77% of the population depends on rain fed subsistence farming of grains and cereals and rearing of domestic animals for their livelihood[8]. As much as 73% of the female population has not had any formal education and only 12% has primary education[7].

The district is largely patriarchal with male dominance quite pronounced. For instance, inheritance of family property including significantly land and domestic animals, offering of sacrifices to ancestors, payments or beneficiaries of dowry are all male domains. Female Genital Cutting (FGC)-intended to protect female virginity, and guarantee marital prospects appears to be on a decline in the district but continues to be a feature of girls' transition to adulthood[9]. It has also been documented that mothers in-law maintain a special gate-keeping role on marital and sexual conduct[10]. Characteristic of most traditional societies, early female marriages contracted mainly for the production of children are a common feature in the district. Although associated with weak emotional bonds and poor communication of reproduction and matters of collective concern between spouses, the practice of polygyny is quite high[11]. Compared to a national average of 23%, a higher proportion of married women 27.3% in the Upper East Region where this study was done reported being in polygynous unions[12]. Current estimates from the Navrongo Demographic Surveillance System put the prevalence of polygyny in the Kassena-Nankana district at 37.2% [13].

Reproductive profiles of the district reveal marked declines in fertility levels. The total fertility rate in the district declined remarkably from a high of 5.1 in 1993-94 [14] to a low of about 4 over the period[13]. Among other factors, trends in

declining fertility in the district reflects improvement in the mean age at marriage over the years to about 20.4 years and a shift of the peak age of childbearing from the 20-24 age group to the 25-29 age group[13].

According to the 2003 Ghana Demographic Health Survey[12], about 2.2% of Ghanaians 15-49 years old are HIV positive with a female-to-male ratio of 1.8 to 1. The 2003 GDHS report did not highlight district level differences but the 2006 sentinel survey report[15] shows that HIV prevalence among antenatal clinic attendants in the Kassena-Nankana district has varied between 2.0% and 5.1%. A recent district wide survey among 10-24 years olds revealed a general low prevalence of STDs but marked increase among married females. The prevalence of HIV and herpes simplex virus II among married females was 3.5% and 19.9% compared to about 1% and 9.7% among the unmarried respectively[16].

While antiretroviral therapies are not available in the district, voluntary counselling and testing services have recently been expanded beyond the district hospital to cover four health centres strategically located in the district. This notwithstanding, uptake of VCT in the district is generally very low. Baiden and colleagues[17] documented that women attending Antenatal Clinics in the district do not equate willingness to get tested for HIV to the test's usefulness. Husbands of pregnant women in this district exert strong influence on their wives perception of the usefulness of HIV testing and on their decision whether or not to get tested.

Based on the above context, this study draws on interpretative principles to understand the socio-cultural norms and expectations that influence young mother's sexual conduct and vulnerability to HIV/AIDS.

Methods

This study used focus group discussions (FGDs) and repeated semi-structured in-depth interviews (IDIs) based on interpretative principles with emphasis on understanding the role of social and cultural rules and expectations in determining women's sexual conduct and vulnerability. Young mothers in this study were defined as women in their mid twenties to early thirties with living children. Repeated interviews allowed us to build sufficient rapport with the women, which enabled them to talk about sensitive topics and choices. Initially, the interviews were very informant-led with the interviewer listening to the story, and the questions following on logically from informants' responses. The researcher and interview moderators played and listened to initial recorded interviews and picked out where to lead and probe the woman in the next interview.

In exploring how men integrate alternative meanings in decision making about sex, we included repeated semi-structured interviews with men married to young mothers**.** However, these were not the spouses of the women interviewed. Informal interviews with key informants such as community health

officers (nurses providing door-door services) in the community were held to provide information on perceived changes in practice of post-partum abstinence; contraception and condom use to guide the design of the study tools.

This approach was useful as it provided narratives and personal accounts, which enabled the investigators to adequately explain the processes and context of young mothers' vulnerability and coping strategies for avoiding sexually transmitted diseases. It also allowed us to understand how reality is constructed and maximised access to different perspectives of women beliefs, sexual and reproductive behaviour.

Adopting a comprehensive grounded theory approach (where theory emerges from the data in a cycle of inductive and deductive cycles) was beyond the scope of this study. However, several principles of "grounded theory" were incorporated in both the data collection and analyses. The strength of grounded theory approaches lie in the cyclical process of collecting data, analysing it, developing a provisional coding scheme, using this to suggest further sampling, more analyses, checking out emerging theory, and so on, until a point of 'saturation' is reached, when no new constructs are emerging[18]. In this study, coding and analyses of the interviews was done from the start, and the constructs, meanings and understandings emerging from the initial interviews informed the emphasis in subsequent interviews. After the initial stages of data collection, sampling was dictated by the emerging data.

Sample Selection

Respondents were purposively selected with the assistance of key informants. The women who were selected had two or more living children and this restriction enabled us capture the views of women with long and short birth intervals. Women in polygynous marriages were also selected purposively. A total of 43 in-depth interviews were conducted. Of the 43 in-depth interviews, 29 were conducted with young mothers and 14 with male spouses. The total number of interviews was determined by integrating analyses and fieldwork that allowed us to sample up to a point where our interviews generated sufficient data to provide a rigorous analysis.

Trained research assistants with previous experience in moderation of focus group discussions and in-depth interviews conducted the interviews in the local language. Informed consent was obtained and the women and men interviewed were given the option to discontinue the interview at any time they wanted to. At the end of the first interview, permission was sought for a follow-up interview to elicit further information and to clarify issues in the next few days at the convenience of participants.

Data analysis

A pragmatic mix of methods of analyses was utilised, starting with thematic analyses, coding and categorising common and recurrent themes. Reading through the transcripts, codes and

categories and ideas emanating from the data itself were generated, together with preset concepts and constructs specified in the research questions and topic guide. We used the QSR NVIVO qualitative software to organize and manage the data for analyses. The software has a free node facility that allows data to be coded in broader themes. The tree node facility permits the organization of sub-themes and this helps in comparing and contrasting within and between cases. By comparing and contrasting the individual accounts of different informants, we built a picture of underlying cultural categories that structure the individual ways of interpreting and representing such concepts as 'risk' and 'protection'.

To improve the rigour and validity of the analyses, we paid close attention to deviant cases that differed from patterns observed in the data. We also analysed the whole dataset rather than those fragments that confirm preconceived ideas. Texts and themes extracted were constantly compared between and within cases, as well as findings from other studies.

Results

Characteristics of Study Participants

The youngest mother interviewed was 22 years and the oldest was 30 years old. As expected, male spouses interviewed were much older ranging from 28 to 49 years. Most of the young mothers interviewed had either never been to school or ended their schooling at the primary level. Only a few of them had junior and secondary education or higher. There were marked educational differences by sex among the study participants. Of the 29 young mothers interviewed, only 10 had senior secondary or higher education but about half of the male spouses interviewed had secondary or higher education. In fact, 6 out of the 7 participants with tertiary education were males.

Reproduction and HIV Knowledge

In terms of type of union, 38 out of the 43 participants were in monogamous relationships while 5 participants were in polygynous unions. The majority of the participants (17) had two children each. Five of the women who had one child were pregnant at the time of the interview. Two participants reported having 5 and 6 children. The duration of postpartum abstinence observed ranged from 2 months to 33 months with no clear-cut differences by educational background and type of union. More men than women interviewed however tended to prefer shorter durations of postpartum abstinence.

Most of the participants were aware that one could acquire HIV through unprotected sexual intercourse, or use of contaminated blades. Some participants explained that HIV/AIDS is caused by male infidelity and in some cases unfaithful female partners.

> *I don't think there is somebody who can say he or she has not heard about AIDS and how people get it. Even children know that if you go about having sex with every woman you see*

without protecting yourself, you will surely get AIDS and die. ***IDI with a 35-year-old husband with no formal education***

We know that people can get AIDS through sexual intercourse and blood contact. But there are other ways through which people can also get it like the use of infected blades including those at the hairdressers and barbering shops. ***IDI with a 23-year-old woman with junior secondary school education***

We further explored extramarital activity as a precursor to risk of STI/HIV infection. None of the 29 young mothers interviewed reported ever being involved in extramarital sexual activity. On the contrary, 12 out of the 14 male spouses interviewed reported ever engaging in extramarital affairs ranging from 1 to 15 or more casual partners. About a third of the male spouses interviewed admitted having extramarital sexual partners at the time of the interview. Although condom use to mitigate the risk of STI/HIV infection was reported in such relationships, use was often inconsistent especially when such relationships are maintained for longer periods. Over all, 11 young mothers and 9 male spouses reported ever using condom with their stable partners.

Perception of Partner Behaviour and Risk of HIV Infection

Perception and knowledge of a partner's risky sexual behaviour is important in taking precautions against subsequent risks behaviours. An individual's perception of risk is likely to be influenced by his or her own sexual behaviour and that of his or her partner's sexual behaviour. Generally in this study, women were reluctant to admit knowledge of their partner's involvement in extramarital sexual affairs; a practice one participant described as "*covering up the faeces of ones partner"* (preventing public knowledge of ones partner's immoral sexual life).

"Hmm, most of us pretend to see only what other women partners do. They are happy covering up the faeces of their husbands but enjoy talking about others. The truth is that the men are not different; most of them like women. ***IDI with a 23-year-old woman with junior secondary education***

"If a man has girl friends besides his wife, he could get infected with AIDS and give it to his wife. But I can say with confidence that my husband is not someone who likes women. Alcohol is his girl friend" ***IDI with a woman with no formal education***

Women with secondary education or higher however were more willing to admit their partner's involvement in extramarital affairs than women with lower education or without any formal education. They also felt such behaviour poses a high risk to their health and happiness. Asking such women if they ever felt at risk of being infected with

HIV by their husbands' evoked anger and pain as in the highlight:

> *Yes, why not? Doesn't he like women? He likes women a lot and so I know he will get HIV. I am only praying that when he gets infected, God will protect my children and me so that he may die alone with his problems.* ***IDI with a 27-year-old monogamous woman with secondary education***

> *I am afraid of AIDS because I know the woman my husband has taken on as a girl friend. She is some one who does not stay with one man but rather jumps from one partner to another and so she is not far from giving HIV to my husband.* ***IDI with a 27-year-old monogamous wife***

> *My husband travels a lot and I am not able to tell what he does on those trips. One cannot defend a man because sometimes my husband goes out and returns home around 1.00am or 2.00am. That is why I am afraid that he may bring HIV to kill me and leave behind my children to suffer.* ***IDI with a 28-year-old polygamous woman with primary education***

Some male participants shared these sentiments and perceived risks raised by female participants. Younger male participants in the ensuing discussion confirmed these views

> *I have ever been scared of HIV because I once had sex with a beautiful lady whom I did not really know much about. She came to this community from somewhere but I could not hold myself and so I had sex with her using a condom, but along the line the condom burst. When this happened, I was in a mood that I could not control my self and by the time I finished, I noticed only the neck of the condom hanging on my penis.* ***IDI with a young husband with primary education***

Older male participants however felt that marital infidelity was more common among young couples.

> *Really this is not a serous problem for we those who are quite elderly. It is the young ladies and men that have that problem. At my age, I am not interested in other women besides my wife and so I don't have to be worried about getting an STI. Do I have to be afraid that my wife may infect me? I will be surprise if that happens.* ***IDI with a 49-year-old uneducated husband***

The issue of marital infidelity and its associated risk of STI were highlighted during the discussions. One study participant who felt very strongly about male infidelity shared her experience with her husband.

> *"I had a sickness which used to give me high body temperature especially in the night and pains when urinating. After managing*

to urinate, I have to sit for sometime before I would be able to walk again. When I told my husband about it he did not take me serious. Because I am not educated when I say something like that, they don't take it serious. Later, I asked him for money to go to the hospital and he did and told me to go to Wiaga because that place is good. When I went they gave me treatment and asked me to go and bring my husband. When we got there, they told us that the sickness was gonorrhoea and that it can kill when you don't treat it. They gave us medicine and asked us to report back later. When the medicine got finished we went back again for some. Not quite long ago, we went and they told us the disease is gone. After that they told my husband that whenever he goes out and sleeps with another woman he should use a condom when having sex with me. They told us that we were lucky gonorrhoea can be treated and that if it were AIDS what were going to do?" ***IDI with a 25-year-old monogamous woman with no formal education***

Extramarital affairs expose women to risk of STIs including HIV/AIDS. Yet many women deny knowledge of these affairs and hence are unable to protect themselves even when they are aware of the risks. Denial by women of their partners' infidelity in this community is re-enforced by the larger community.

Since culturally a man can marry as many wives as he can afford, the protests of wives against their husbands' sexual behaviour may be interpreted as being "jealous". However, the risk of acquiring sexually transmitted diseases including HIV appears to provide an opening for women to challenge their husband's sexual behaviours. This observation arose in the interviews conducted with husbands. The statement below illustrates this need quite clearly.

"…Traditionally a man can marry as may wives as he wants. So, our wives know they cannot win the argument if they complain about our relations with other women. Now that there are diseases especially AIDS, that is what they use to win over their husbands when conflicts occur and anyone hearing about it will support her. When she complains about the risk of disease, you may try to defend yourself but you know that honestly your wife has a point". ***IDI with a 41-year-old husband with primary education***

However, fear of divorce limits women's ability to negotiate their partner's sexual behaviour. Women may be unassertive because they lack education and employment as the excerpt points to.

"When he comes home with those his lovers, they go straight into our other room and leave me with my child in the other room. This is painful and unfair because we are married and yet he abandons

me with the child and goes in for another woman and brings her into our marital abode in my presence. I talked to him several times and involved other people to talk to him to change his attitude in vain. He insists on whatever he is doing and that if I cannot bear it, I can pack out of his house. I knew he wanted an excuse to marry another woman and so I just allowed him to continue doing whatever he wanted". ***IDI with an uneducated monogamous wife***

In this cultural setting where polygyny is practiced, knowledge of a partner's risky sexual behaviour may not necessarily lead to taking adequate measures to protect ones-self. Cultural sexual norms abound and are condoned even by women through denial of knowledge of their partners' risky sexual behaviour. However, among more assertive women, flexible and nifty strategies are employed to guard against STI infection from their spouses.

Coping Strategies against HIV infection among Young Mothers

In this setting various coping strategies including the use of condoms, sexual refusal, divorce, faking up menses are adopted by young mothers against the risk of HIV infection. The fears and anxieties of young mothers on the consequences of using direct measures to sexual refusal lead to the use of discreet methods among young mothers.

Sexual Refusal

Sexual refusal in marriage is not supported by the cultural norms of the Kassena-Nankana people and in most African traditions. Culturally, the payment of bride wealth to a woman's natal family confers not only labour and domestic but also sexual and reproductive rights to the groom[19]. Thus, women may find it difficult to refuse sexual relations with the husband even if it is due to infidelity. However, with the advent of HIV/AIDS, some women have turned this constraint to their advantage and hence negotiate safe sexual practices with their spouses. This advantage can be deduced in the dialogue below

Interviewer*: Is it possible for you to refuse to have sexual intercourse with your husband?*

Respondent**:** *It is not right for me to refuse to have sex with my husband if there is no problem but the way the world is, there is so much fear and if he does not want me to refuse him sex he will have to agree to use a condom.*

Interviewer: *Why is there fear in the world?*

Respondent*: It's because of the AIDS.*

Interviewer: *Will your husband accept to use the condom?*

Respondent: *If he refuses to use it then we cannot have the sex. Even though that will bring some problems, what do you expect me to do? If he goes out after*

women, I have to be afraid that he may infect me with HIV. If he were not to do that and even wants to have sex with me day and night, I will give it to him. ***IDI with a 28-year-old polygamous woman with primary education***

Refusal to have sexual intercourse with a partner is therefore a strategy used by women to protest their husband's extramarital behaviour. In some instances, it is used as bait for male partners to return home early. Sexual negotiation and refusal is communicated through a combination of verbal and body language. Aggrieved women may simply turn their backs to their husbands in the night when they are not interested and repel their husband's sexual advances.

> *"I will keep to myself and he will also do same. Normally that makes him to know I am not happy with him. I am his wife "all I have is his" and I am not taking it to any other man. When he stops sleeping outside or coming home late in the night for some time, I know it is because I refused him sex that is why he is trying to change and so I will also forgive him.* ***IDI with a 27 year old monogamous with secondary education***

Among less assertive women, mixed feelings of anger, desperation and optimism was expressed concerning their inability to avoid risky sexual relations with their husbands. They lament the frustration that stems from their inability to refuse their husbands sexual intercourse or insist on condom use. The statements below are illustrative of this fact.

> *"What can you do to prevent your husband from infecting you with AIDS? Are you going to buy the female condom and insert it while sleeping every night? The problem is that you cannot tell the day your husband will approach you. He could do that while you are asleep and you will not be able to get up and insert a condom before he enters you. It is rather the man who can prevent it but if he doesn't like using condoms, then there is little you can do to prevent yourself from being infected".* ***IDI with a 30-year-old monogamous wife with secondary education***

> *How can she be staying in his house and saying that he has AIDS and so she will not have sex with him? What is the evidence that she her self is not already infected? The only option here is for her to pack and go back to her parents. The problem is that by the time you will get to know that your husband has AIDS he would have already infected you with it and so it doesn't make sense to refuse him sex.* ***IDI with a 25-year-old polygamous wife with secondary education***

> *It is difficult because you may not even know that your man is having extramarital affairs with other women outside. In that case, how are you going to protect yourself? You cannot police your husband all the time and so once you are married you have to pray and commit the relationship into God's hands because men cannot be trusted.* ***IDI with a 30-year-old monogamous wife with primary education***

Uncertainty about a partner's true HIV status makes it difficult for women to refuse sexual advances from their partners. Besides, the lack of female controlled devices for HIV protection compounds their predicament. Voluntary counselling and testing services needs to be made widely available and couples encouraged to test to know their HIV status. Being aware of ones HIV status and that of a partner could foster safe sexual behaviour in marital unions including use of condoms. Even where both partners are positive, use of condoms is beneficial in reducing viral load and slowing down progression of the disease.

Faking of Sickness and Menses to avoid Sexual Intercourse

Faking of illness to avoid sexual intercourse is not a new phenomenon. In this community, menses is generally perceived as "dirt". Thus, most men distant themselves from their partners who are menstruating for fear of being defiled. Consequently, women exploit this window period to evade their partner's sexual advances when they are not happy with their partner's behaviour.

> *I don't know of other people but my husband does not like menses. So, whether I am in my menses or not, once I tell him I am in my menses he wouldn't want to have sex with me again.* ***IDI with a 27-year-old woman with junior secondary education***

> *My wife could be menstruating and I will not know and so approach her. In that case she tells me straight away that she is not well. You know having your menses is another form of sickness to women and so when she tells me that she is menstruating, I will not call that refusal.* ***IDI with a 49-year-old uneducated husband***

The effectiveness of faking menses to avoid sexually transmitted infections is however debatable due to its limited time span but the women see it as effective tool to use even if they are not in their menses

Condom Use

Young mothers especially those who have had formal education, who suspect their male partners of infidelity, are likely to take measures including condom use to protect them from being infected with

STIs. Some young mothers explained that as a protective measure, they have been advising their husbands to always use condoms anytime they engage in extramarital affairs.

> *"I normally ask him to use condoms when I am not happy about his sexual behaviour. Since he does not like me asking him to use condoms, when I insist he has to use condoms, he gets to realise that I am not happy about his sexual behaviour. If this kind of situation doesn't arise, I normally use the injection."* ***IDI with a 27 year old educated woman in a monogamous relationship***

> *At the time I was not yet pregnant my husband used to roam a lot that is why I used to use condom with him since now there are a lot of diseases. He always uses a condom if I insist he has to use it. I always tell him my reasons for asking him to use condoms. Initially, he refused to use it but later on accepted to use it.* ***IDI with a 25-year-old monogamous woman with basic education***

> *When you don't trust your husband and you don't also want to refuse him sex, then you have to use condoms to protect against diseases. So I used condoms with him because I was afraid he might give me diseases. Actually, he does not like using condoms and so once he changes his behaviour, I have to also relax my stands.* ***IDI with a 27-year-old monogamous wife with secondary education***

Divorce

The least preferred possible course of action identified by women as protection against infection of HIV is separation and where necessary divorce. However, the magnitude of perceived risk of infection that may warrant divorce varies depending on the woman involved. Some participants explained that although reconciliatory structures available for marriage mediation make reunion after divorce almost always unavoidable, they would defy such structures if they were convinced that they have not yet been infected but their husbands have been infected.

> *"The problem is that by the time you will even think about it, you would have already been infected. But if you happen to know early that he has been infected, it is possible to protect yourself. If you asked him to use condoms, anything could still happen. The only solution is to divorce him if you want to be safe".* ***IDI with a 27-year-old monogamous woman with secondary education***

> ***"****I will divorce him and sack him if he comes to my parents because I wouldn't want an AIDS person in our house. That is why we have to be advising each other but if our husbands will not listen to us and he lands himself in such a problem, he*

has to handle it alone". ***IDI with a 30-year-old monogamous woman with secondary education***

Although separation and divorce were identified as strategies used to avert risk of HIV infection, in this traditional setting, these may not be effective strategies for HIV prevention because of two main reasons. First, it creates an opening for high risky sexual behaviour as men may justify continues sexual misconduct by the absence of their wives. Secondly, couples almost always invariably resolve their differences and reconcile either by themselves or through mediation by family members. When such reconciliation's occur, women may relax their defences and may not insist on condom use or suggest HIV testing. Consequently, partners resume unprotected sexual intercourse, which exposes them to risk of infection including HIV. The dialogue below with a 23-year-old young mother highlights the weaknesses of separation and divorce as a strategy for HIV protection.

Interviewer*: What was the actual reason why you packed back to your parents (you separated from your husband)?*

Respondent: *He was going after women carelessly and when I complained about his behaviour we quarrelled.*

Interviewer: How long did you stay with your parents before coming back to your husband?

Respondent: *It was up to three months.*

Interviewer: *So what did you do on your return to protect your self since you could not trust your husband anymore?*

Respondent*: I made him understand that the way things are I could not continue to have sex with him but later on I changed my mind and we started having sex again.*

Interviewer: *Did you consider asking him to use condoms until you are convinced that he is not infected?*

Respondent*: "Actually my husband does not like using condoms. As you may be aware, most men don't like using it because they say they don't enjoy sex when they use it. So, once he changes his behaviour, I have to also relax on my stand.* **IDI with a 27-year-old monogamous woman with secondary education**

When a couple reconciles after divorce or separation, they resume sexual activity without adequate measures to limit the possibility of disease infection. Moreover, some participants indicated that in the event of a divorce due to marital infidelity and fear of disease infection, they may accept to go back and join their husbands for the sake of their children especially if they were already infected. This suggests that young mothers may submit themselves to re-infection once they discover they are already infected and hence need to stay around to support their children.

Discussion

This study identified several factors that make young mothers vulnerable to sexual and reproductive health outcomes.

Gender dynamics, socio-cultural norms, attitudes towards and use of condoms and low self esteem interact in various ways to expose young mothers and their spouses to sexual and reproductive health risk including HIV/AIDS.

In this study the majority of women continue to be marginalized and restricted to the domestic setting. As many as 83% of women, especially among older cohorts, have not had formal education in this district[7] but among the younger generations, the educational gap between males and females in the district appears to be narrowing. However women's urge to take actions to avoid perceived sexual and reproductive health risk including HIV infection is still compromised by their childbearing obligations.

Yet men's extramarital sexual relations are culturally condoned especially when women are breastfeeding and therefore not sexually available to their partners. The proposition by Caldwell and colleagues[20] and more recently by De Walque[6] that extra-marital sex among African women is the key to the AIDS epidemic in the region is not supported by findings of this study. Damien, using the DHS data from five African countries (Burkina Faso, Cameroon, Ghana, Kenya and Tanzania), found that two thirds of infected couples were discordant and between 30 and 40 percent of these were discordant female. The author argues that the findings are at odds with the common perception that unfaithful males are the channel through which HIV is transmitted from high-risk groups to the general population and concludes that the sizable fraction of discordant female couples is extremely difficult to explain without high risk extramarital sex among married women. While not contesting their premise, in this setting female extramarital sex is culturally suppressive. Our findings highlight the crucial role men play in the transmission of the virus into stable relationships among rural populations. Ironically, a woman's knowledge of her partner's risky sexual behaviour is condoned by women through denial; an attitude aptly described by more assertive women as "the covering up of ones partner's faeces".

It is not surprisingly therefore that the inability among less assertive women to avoid risky sexual relations with their husbands causes frustration. It is also observed in Kassena-Nankana district and elsewhere in Ghana that differences in gender dynamics and domestic power relations weaken the autonomy of women to implement their preferences with serious sexual health implications[10, 11, 21, 22]. Bawah and colleagues[10] observed further that the payment of bride wealth signifies a woman's requirement to bear children; and there are deeply ingrained expectations about women's reproductive obligations. Perhaps, it is these features of sexual behaviour in stable relationships that have led some observers to describe women as being powerless and lacking initiative to negotiate safe sexual behaviour[23, 24, 25]. To a large extent this characterization may be true, but the results from this study demonstrate that women agency in sexual matters, need to be looked at in

context. For instance, increased awareness of HIV/AIDS has served to empower breastfeeding women to adopt safe sexual practices to minimize their partner's involvement in risky extramarital sexual relations. Other studies in this setting also documented that due to the high value of children in this setting for a variety of economic, social and cultural reasons, [10, 11, 14], some women are able to persuade their partners to abstain from sexual intercourse or to adopt modern contraception to enhance the health of their children.

However, strategies such as faking of menses and illness to avoid sex, sexual refusal, separation and divorce used by women in this study setting may not be protective against HIV and other STIs because of the general low knowledge of partners' HIV status. In cases of separation or divorce due to risk of STIs/HIV infection, less assertive women may still submit themselves to re-infection once they discover they are already infected for the sake of their children. Moreover, when partners reconcile their differences, they invariably often resume unprotected sexual intercourse without knowing each other's HIV status.

Condom use among the study group was low and inconsistent. Nevertheless, most women with higher education tended to negotiate with their spouses to use condoms whenever their husbands engaged in extramarital affairs. These women reported they could insist on condom use when they perceive themselves at risk of STIs. This finding is consistent with other studies. For instance, Maharaj and Cleland[26] using a combination of qualitative and quantitative research techniques, observed in South Africa, that women were not as powerless to negotiate safe sex with husbands as is so often assumed and that education was a powerful predictor of condom use within marital and cohabiting partnerships.

However, condom promotion in these settings needs to address negative perceptions associated with condom use, as it is perceived to diminish affection and trust for a partner. These perceptions and attitudes are however not new and have been documented in previous studies in African settings. Recently Plummer and colleagues[27] described several of such negative perceptions about condoms that affected its use in rural Tanzania where study participants queried how one could be expected to "farm with a hoe in a sack". It is strongly believed that sustained education and sensitization that adequately addresses erroneous perceptions of condom, ensures availability, and encourages correct and consistent use will greatly reduce the spread of HIV infections in Africa.

Vigorous HIV/AIDS educational campaigns on protective measures, provision of voluntary counselling and testing, STI treatment and provision of antiretroviral treatments combined with improved formal female education and economic empowerment will greatly reduce the HIV/AIDS pandemic and enhance the attainment of the millennium development goals in Africa in the long term. However, this study also identifies

the possibility that the advent of HIV may advance the cause of women's reproductive health empowerment by providing women with very strong reasons to minimize risk within marriage. Of course, the wives of unfaithful husbands always run the risk of contracting treatable STIs but HIV infection is much more serious and most husbands are well aware of this distinction. Thus the advent of HIV provides wives with far more powerful arguments than hitherto, both to dissuade husbands from extramarital sex and to insist on precautions when infidelity is suspected.

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