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RESEARCH ARTICLE

EXAMINING THE ACCEPTANCE OF VOLUNTARY COUNSELLING AND TESTING AMONG PREGNANT WOMEN ATTENDING ANTENATAL CLINIC AT THE UPPER WEST REGIONAL HOSPITAL, GHANA

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ABSTRACT

Voluntary Counselling and Testing (VCT) provides people with the opportunity to learn and accept their sero status in a confidential environment. Recent studies have shown that VCT is a cost-effective intervention for reducing HIV amongst pregnant women. To know their HIV status is an important tool for prevention of mother to child transmission. VCT among pregnant women attending antenatal care (ANC) clinics is the first filter to access Prevention of Mother to Child Transmission (PMTCT). The objective of this study is to investigate into factors responsible for the acceptance of VCT among pregnant women in the Wa Municipality. The study is a descriptive cross-sectional study which adopts both qualitative and quantitative methods of data collection. Two hundred pregnant women attending ANC were exit interviewed using a structured questionnaire. Key Informant Interview was conducted for 10 health providers involved in VCT and ANC activities. The study shows that 83 percent of pregnant women attending ANC had knowledge on VCT services though acceptance level was only 32 percent. Forty-four percent of them mentioned that the main barrier was fear, stigma and discrimination. Intensive health education on VCT using available methods like mass communication, peer group education, community meetings are recommended. VCT being the entry point for PMTCT should be strengthened.

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INTRODUCTION

Since the time AIDS was first reported in the United States of America in the early 1980s, the disease has rapidly spread to become one of the biggest pandemics in recent times. According to estimates by UNAIDS, about 39.5 million people worldwide are infected with HIV. AIDS is the most globalized epidemic in history, and we are witnessing its growing 'feminization'. Globally, there were 4.3 million new infections with 2.8 million (65%) of these occurring in Sub-Saharan Africa and nearly half of all persons infected between the ages of 15 to 49 years are women (UNAIDS, 2006). The report also showed a continuing rising trend in HIV infection levels among pregnant women attending public antenatal clinics: from 22.4 percent in 1999 to 30.2 percent in 2005 (a 35% increase). In 2003, an estimated 630 000 children worldwide became infected with HIV and strategies have been adopted to reduce MTCT. The burden of care in AIDS affected households falls on women and girl children coupled with the fact that having unprotected sex leads to pregnancy. It is estimated that without any intervention 30-40 percent of babies of HIV positive mothers become infected and this could be prevented by Prevention of Maternal to Child Transmission (PMTCT) Programme (UNAIDS/WHO, 2006).

In Ghana the first AIDS case was reported in early 1986 (Neequaye *et al.*, 1986, Konotey-Ahulu 1989). Since then there has been consistent increase in cases with women being the hardest hit. The fight to overcome the deadly disease is a public health challenge. The main mode of spread is through sexual intercourse and this can be prevented through health messages leading to behaviour change. The 2003 Ghana Demographic and Health Survey indicated that rates among pregnant women have been found to be much higher (2.2%) than those among males (1.6%). In 1994, data from sentinel surveillance system showed a median prevalence of 2.4 percent among pregnant women attending ANC. This declined slightly to 2.7 percent in 2005 but increased to 3.2 percent in 2006 (GHS/National AIDS/STI Control Programme, 2006). To check the spread of HIV/AIDS in the country, government of Ghana established a coordinated multi-sectoral response. The National Technical Committee, National AIDS Control Programme (NACP) and AIDS Commission have been established to advise and implement measures to contain the epidemic. Voluntary Counselling and Testing (VCT) Programme was identified throughout the country as one of the interventions in the comprehensive package to control HIV/AIDS. VCT services for pregnant women were organised and integrated into the antenatal services for access within the health set-up, using the provider initiative approach which emphasises on consent, confidentiality and counselling. Clients who access ANC services are educated on VCT and if they opt for services are

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counselled, tested and given the results. A pregnant woman who is found to be positive, is prepared and given drugs according to the set guidelines (NACP, 2004). The uptake of these services in the Wa Municipality has not been encouraging despite the effort of managers to adopt strategies to increase utilisation. Much has not been achieved as the specific cause(s) of the low acceptance of VCT is not known.

VCT in Relation to PMTCT

Voluntary Counselling and HIV testing (VCT) developed in University of San Francisco (UCSF) in the United States of America has become a central component of comprehensive HIV prevention strategies. VCT has become increasingly important in prevention and care. It facilitates access to prevention services for sero-negative people and is a key entry point to care and support services for persons with HIV including reducing Mother-to-Child Transmission (MTCT) of HIV, preventing opportunistic infections and in reducing stigma and secrecy surrounding HIV/AIDS. Although there is widespread international support for rapid expansion of VCT as a component of HIV prevention and to enable sero-positive people to access care including Anti Retroviral Treatment (ARVs) and PMTCT interventions, many challenges remain. Cross-cutting challenges include stigma and discrimination, and disclosure of HIV status to partners and friends (NACP, 2004).

VCT and PMTCT programmes have become integral components of comprehensive HIV/AIDS prevention and care services, particularly in countries with high HIV prevalence (NACP, 2005). VCT and PMTCT are two HIV/AIDS-oriented services that could be easily integrated into already existing services. Many programmes started as pilot programmes, but the urgency of the AIDS pandemic has led to the need for rapidly scaling up programmes to the national level (UNICEF *et al.*, 2000). Some countries have made efforts in formulating policies and guidelines to implement VCT. In Ghana there were 327 PMTCT sites countrywide in 2006 (NACP, 2006). The proportion of districts with at least one PMTCT site was 92 percent and 52 percent of pregnant women attending ANC were counselled and tested for HIV (NACP, 2006).

The UNAIDS Best Practice Collections; *Mother to Child Transmission of HIV*: suggests that one component of a successful response to MTCT is a link to family planning and antenatal (ANC) programmes. All women and men, irrespective of their HIV status, have the right to determine the course of their reproductive life and health, and to have access to information and services that allow them to protect their own and their family's health. Links between HIV testing programmes and ANC services must be strengthened in order for HIV-infected women and their partners to make informed choices regarding their reproductive life (UNAIDS, 1998). Some children living with HIV acquire the infection through mother-to-child transmission (MTCT), which can occur during pregnancy, labour and delivery or during breastfeeding. According to WHO in the absence of any intervention the risk of such transmission is 15–30 percent in non-breastfeeding populations (WHO, 2006). Breastfeeding by an infected mother increases the risk by 5–20 percent to a total of 20–45

percent. The risk of MTCT can be reduced to under two percent by interventions that include antiretroviral (ARV) prophylaxis given to women during pregnancy and labour and to their infants in the first weeks of life, obstetrical interventions including elective caesarean delivery (prior to the onset of labour and rupture of membranes), and complete avoidance of breastfeeding (NACP, 2004). The efforts to prevent HIV infection in infants initially focused on reducing MTCT around the time of labour and delivery, which accounts for one to two thirds of overall transmission, depending on whether or not the mother breastfeeds (WHO, 2006). Renewed efforts are urgently required to increase access to comprehensive and integrated programmes to prevent HIV infection in infants. These programmes serve as a unique entry point for women to access the services they need to improve their own health and prevent transmission of HIV to their infants. Several recent initiatives have presented an opportunity for countries to increase the coverage and effectiveness of PMTCT programmes (GHS, 2005).

The published UNAIDS Best Practice Collections; *Counselling and Voluntary Testing for Pregnant Women in High HIV Prevalence Countries: Elements and Issues* (2001) aims to provide guidance on the counselling and HIV testing for managers of antenatal clinics and other pregnancy-related services, whether they are public, private or non-profit. The document may also be used as a basis for discussion in developing strategies to this increasingly important area. The guidance suggests that it is not necessary to wait until the full range of services is on offer before integrating HIV-related information, counselling and voluntary HIV testing into routine pregnancy care. At the very least, women can be provided with information about reducing their partner's exposure to HIV infection, and about avoiding unwanted pregnancies. The potential benefits of knowing one's HIV status in the context of childbearing are greater for HIV-infected women (UNAIDS, 2001).

The Ghana National AIDS Control Programme guidelines note that staff working in antenatal clinics offering VCT and PMTCT services will need to be adequately trained in all elements of care. Health care workers will need to acquire new skills in order to be able to counsel for and administer ARV treatment or other interventions to reduce Mother-to-Child Transmission (MTCT), for prevention of sexual transmission of HIV and for infant feeding options (NACP, 2005). Regarding interventions, the guidance offers that if ARV treatments to prevent MTCT are being offered, detailed explanations, monitoring and follow-up are particularly important as the procedure is complex and involves a number of different services. The guidelines also stress on the need to provide safer sex counselling to women in the antenatal setting no matter the result of the HIV test. The procedures for VCT and MTCT interventions, for referral to related services all need to be defined clearly (NACP, 2005). Low uptake of PMTCT services in resource-limited settings requires new approaches to prevent missed opportunities. Routine HIV testing ("opt-out" testing) in antenatal care (ANC) should be considered (Perez *et al.*, 2006; Creek *et al.*, 2007). An exploratory cross-sectional survey was conducted in six PMTCT sites in rural Zimbabwe. Women who had attended

ANC in health centres where PMTCT was provided were surveyed in post-natal services. Out Of 520 women sampled, 285 (55%) had been HIV tested during their last pregnancy. Among the 235 women not HIV tested in ANC, 79 percent would accept HIV testing if opt-out testing was introduced in ANC. Factors associated with accepting the opt-out approach were being <20 years old, having secondary education or more, living with a partner and the existence of a PMTCT service in ANC and where the untested women delivered. Among the women already tested in ANC, 97 percent would accept the opt-out approach in ANC set-up. Introducing the opt-out strategy for HIV testing into ANC may have a far-reaching public health impact on PMTCT. (Perez *et al.*, 2006).

The United Nation General Assembly Special Session (UNGASS) declaration of Commitment on HIV/AIDS has stated clear objectives. These include reduction in the proportion of infants infected with HIV by 20 per cent by 2005; reduction in the proportion of infected infants by 50 per cent by 2010 (Abuja Declaration on HIV/AIDS, 2001). The strategies to achieve these include ensuring that 80 per cent of pregnant women accessing antenatal care have information, counselling, and other HIV-prevention services available to them, increasing the availability of and providing access for HIV-infected women and babies to effective treatment to reduce mother-to-child transmission of HIV as well as through effective interventions for HIV-infected women, including voluntary and confidential counselling and testing, access to treatment, especially anti-retroviral therapy and, where appropriate, breast-milk substitutes and the provision of a continuum of care.

While access to combination antiretroviral therapy increased more than three-fold between 2003 and 2005, the world made only modest progress in expanding access to programmes to prevent mother-to-child transmission. In 2005, nine percent of pregnant women in low- and middle-income countries were offered services to prevent transmission to their newborns—a modest increase over the 7.6 percent coverage in 2003 (WHO, 2006). Between 2003 and 2005, the percentage of HIV-positive pregnant women who received prophylactic anti-retrovirals increased from 3.3 percent to 9.2 percent. Data suggest that the recent commitment to scale up antiretroviral treatment is encouraging and there is the need to review guidelines to suit circumstances (WHO, 2006).

Study Setting

The study was carried out in the Wa Municipality of Upper West Region (UWR) of Ghana. Ghana has a population of about 24 million inhabitants and is divided into 10 administrative regions. The UWR was carved out of the then Upper Region by the Provisional National Defence Council government in 1982, making it the youngest region in the country. According to the 2010 Population and Housing Census, the Wa Municipality has a total population of 107,214 (male = 52,996 and female = 54,218). The growth rate of the municipality is 2.7% for rural and 4% for the urban. The Wa Municipality attained its current status in 2004, when the then Wa District was split into three districts; Wa East, Wa Municipality and Wa West Districts. The Wa Municipality is also the regional capital and has three main Health Facilities

situated within what are called sub districts (Busa, Charia, Wa). The health facilities provide clinical, public health and maternity services to the catchment population, using a combination of clinic-based, regular outreach and mass campaigns in close collaboration with communities, community institutions and leaders and village-based health workers and health institutions. There is a referral system that enables facilities refer cases to the next highest level. The Wa Regional hospital is the only referral hospital in the Wa Municipality. All strategies in the comprehensive package in HIV/AIDS activities were started in the Wa Hospital. VCT services was piloted in this hospital and scaled up to other districts. In all, two facilities in Wa Municipality provide Voluntary Counselling and Testing (VCT) services.

Organisation of Services

There are two locations where VCT services are provided in the Wa Hospital - the stand alone VCT Centre and integrated into ANC. Currently the full package of the services is provided only at the VCT Centre. At ANC clinic clients are either referred to the VCT Centre for sample collection and testing or the staff counsel and collect the specimen to the laboratory for testing. At the ANC Clinic counselling was mostly done at the Family Planning Facility or any other room available that is not being used.

METHODS AND MATERIALS

Study Population

The study was conducted in the Wa Municipality of the Upper West Region among pregnant women attending Antenatal services in the Wa hospital, which is also the referral facility in the district. The study applied both quantitative and qualitative methods to explore VCT situation in the Wa Hospital. The questionnaire included both open and closed ended questions.

Sampling Procedure and Sources of Data

The Wa Hospital provide daily ANC services from Monday to Friday and the client load is about 80 clients per day. Consecutive Sampling was used to select 200 pregnant women as respondents to collect information. Fifteen participants were interviewed per day for three weeks. The participants' selection procedure included identifying every 2nd client attending ANC for an exit interview. The variables under study included Age, Attitude to VCT Services, Education, Occupation, Knowledge on VCT, Service Quality, Barriers to VCT, Acceptance of Counselling and Acceptance of HIV Testing.

Table 1. Variables Matrix

Variable	Operational definition	Source of data
Age	Age at last birthday (In completed years)	Birth Cert/Card/
Education	Which level participant attained	Respondents
Religion	Particular system or worship	Respondents
Knowledge/ perception	Heard / information, location of services.	Respondents
Attitude	Respondents thinking or feeling about the services	Respondents
Quality	Provider's technical standards and clients expectations	Respondents
Barriers	Impediments to the service uptake	Respondents

Data Collection Techniques and Tools

Structured questionnaires were used to interview the pregnant women. The questions were structured in English but were translated into the local dialect since many respondents do not speak English. Health workers involved in the Antenatal as well as VCT services were selected for the qualitative component. Key Informant Interviews were conducted among ten Health workers who were selected randomly. An interview guide was used to interview the service providers. All interviews were recorded on audio tape. Notes were taken during interviews as a back-up to audio recordings.

Ethical Consideration

Clearance from Research Unit of Ghana Health Service was sought. Consultation of resource persons and permission from authorities concerned was also sought ahead before data collection. Procedures for informed consent of all persons who were selected were sought prior to the interviews and confirmed as to their willingness to participate. Participants were informed that participation is voluntary with no inducements, and that they have the right to withdraw from the study at any time and that refusal to participate in the study will not in any way affect them. They were also assured that any information obtained from them will be kept strictly confidential.

Findings of the Study

The health providers interviewed are involved in VCT/PMTCT services in the hospital. Ten health providers were interviewed individually to assess their perceptions, roles, factors responsible for the acceptance of VCT services and also make recommendations for improvement. They were Medical Directors, Counsellors, Clinicians and HIV/AIDS Coordinators, who have been working for six years and above. All of them were trained in VCT/PMTCT.

Health Workers/Volunteers on sensitization campaigns or by educational programmes on Radio/TV. Sixty-five percent of them indicated that they were informed about the VCT services available during attendance at ANC.

Acceptance of Services

The study shows that 68 percent of women do not accept HIV counselling in this facility. Sixty-five percent of women, who accept counselling do so to know their HIV status and five percent do it to protect their children. Majority of women who do not accept HIV Counselling said they had no information about the services as observed in Table 4.

Table 4. Acceptance of VCT services

Acceptance	Category	Frequency	Percent
Pregnant women who Accepted Counselling on HIV	No	136	68.0%
	Yes	64	32.0%
	Total	200	100.0%
Reasons for receiving HIV Counselling	To know HIV status	41	65.1%
	Staff informed us to do so	18	28.6%
	To protect the child	5	6.3%
	Total	64	100.0%
Reasons for not receiving HIV Counselling	No benefit/Not necessary	34	25.0%
	Not aware/No information	91	66.9%
	Not aware/No information	8	5.9%
	Stigma and Fear	3	2.2%
	Workers Attitude	136	100.0%
	Total		

All the health care providers interviewed acknowledged the fact that acceptance among pregnant women is generally very poor and not encouraging. Many pregnant women refuse and resist VCT strongly for fear of testing positive. As mentioned by participants, on average only about two pregnant women undergo VCT at the ANC in a month.

Table 2. Background information of health providers

Total No of Respondents	Age		Sex		Years in service		Religion	
	<50	>50	M	F	<20	>20	Christian	Muslim
10	6	4	3	7	5	5	9	1

Table 3. Information about VCT

Information	Category	Frequency	Percent
Heard of VCT	Heard	167	83.5%
	Not Heard	33	16.5%
	Total	200	100.0%
Source of VCT information	Health worker/Volunteer	83	49.7%
	Poster/Magazine	1	0.6%
	Radio/TV	79	47.3%
	Relatives/Interpersonal	4	1.8%
	Total	167	100.0%
Women Informed about VCT at ANC	No	59	35.3%
	Yes	108	64.7%
	Total	167	100.0%

Knowledge and Awareness about VCT

This study shows that 83.5 percent of the pregnant respondents heard about VCT services availability in the facility. Many of the women interviewed said they heard about VCT from

Association between VCT Acceptance and some socio-demographic variables

The socio-demographic factors found to be significantly associated with VCT acceptance is religion, ethnic group and

marital union (polygamous or monogamous). Respondents who are Muslims are more likely to reject VCT services and also when the client is from the Waala tribe. Respondents who are married are also more likely to reject VCT than the single. The study further showed that VCT acceptance does not change by age group and literacy of pregnant women as the findings are insignificant as indicated in Table 5.

Table 5. Association between VCT acceptance and some socio-demographic variables

Characteristic	Acceptance is Yes N = 64 (32%)		Acceptance is No N = 136 (68%)		Odd ratio	95% Confidence Interval	P Value
	No	%	No	%			
Marital status						0.27 – 5.68	0.40
Married	63	32.6	131	67.4	2.46		
Single	1	16.7	5	83.3	1.00		
Age group						0.64 – 1.49	0.90
25 years and below	23	31.5	50	68.5	0.98		
Above 25 years	41	32.3	86	67.7	1.00		
Religion						0.87 – 3.22	0.09
Christian	29	39.7	45	60.3	1.00		
Muslim	35	27.8	91	72.2	1.68		
Educational level						0.32 – 1.23	0.14
Illiterate	39	28.9	97	71.1	0.63		
Literate	25	39.1	39	60.9	1.00		
Ethnic group						0.94 – 3.46	0.05
Waala	25	37.5	60	62.5	2.37		
Non Waala	55	49.4	60	50.6	1.00		

Quality of Services

Pregnant women interviewed mentioned that they were not satisfied with these services because service providers are not adequately trained to undertake VCT and some do not follow the prescribed guidelines, quality of service is thus compromised. The lack of appropriate testing materials and requisite equipment as well as the limited human resources hampers effective and efficient service delivery. On preference on VCT Site, 57 percent pregnant women were of the view that as the ANC Unit was their main point of call at the hospital it was more convenient for them to have easy access to both procedures at one locality, more so because most of them have become well acquainted with the staff as seen in table 6. Forty-six percent of women were of the view that awareness creation will help inform the various stakeholders' role to make services user friendly, while 40 percent think that improved staff skills and privacy at ANC will make clients more willing to access services as shown in Table 6.

Table 6. Where would pregnant women prefer to have VCT services?

Site	Frequency	Percent
Antenatal	113	56.5%
At the VCT centre	21	10.5%
Integrated into OPD/Consultation	43	21.5%
Private Laboratory	23	11.5%
Total	200	100.0%

Health providers interviewed claim that the poor infrastructure at the ANC affects the quality of service provided. This is basically due to the fact that there is virtually no privacy, thus confidentiality is compromised. Clients are therefore reluctant to undergo VCT in such a situation. Providers state that environment is not conducive. This was how one service

provider summed up the situation: *'The ANC unit is congested and there are a lot of activities going on at the same time – Scanning, Family Planning, PNC, immunization, there is no privacy for clients because of the poor infrastructure, so it makes the whole work difficult'*.

Table 7. How can VCT services be user friendly to pregnant women?

User friendly VCT service	Frequency	Percent
Community Participation	20	10.1%
Create awareness/Education and/or materials	92	45.7%
Friendly staff/Improve skills and privacy	80	40.2%
Integrate Services	8	4.0%
Total	200	100.0%

Barriers to Services

The ANC Unit is inadequately staffed and the few staff available are usually inexperienced and have inadequate required training in counselling procedures, they thus sometimes misplay their roles. There are also instances where service providers show lack of professionalism while executing their duties. A typical example is where service providers divulge important information about clients to others and sometimes are very rude and show gross disrespect for the clients; *'We the staff are the problem, our mouths cannot keep quiet and that makes it difficult for clients to cope, we shout, humiliate clients, we carry their information to the pito bar, how can they come?'* This invariably leads to loss of confidence in the service providers

There is also evidence of lack of or poor communication between service providers and clients either due to language barriers or poor explanation of issues. The client might therefore not understand why she is to undergo VCT and thus refuse the process. The lack of adequate infrastructure and testing materials at the ANC Unit hampers the effectiveness and efficiency of service providers when undertaking VCT was stressed on by both providers and pregnant women interviewed; *'Poor infrastructure is a big problem coupled with lack of logistics. Sometimes it is difficult to manage, the*

other day we ran out of test strips and it delays results'. It was found out that the ANC Unit was congested since other activities such as scanning and family planning are integrated and these were going on at the same time by the same staff.

Table 8. Perceived barriers to pregnant women

Difficulty for pregnant women to access VCT	Frequency	Percent
Attitude of Health workers	30	15.1%
Distance/Cost	52	26.1%
Fear/Stigma/Discrimination	88	43.7%
No Knowledge about services	30	15.1%
Total	200	100.0%

Table 8 indicates that most pregnant women refuse VCT mainly for fear of the unknown; they prefer to remain ignorant about their status than to test with the resulting stigma and discrimination when positive. This is compounded by the fact that there is little confidentiality. Fear is buttressed by the potential psychological distress to the client and her family associated with testing and the misconception that once you test positive you are more or less a dead person since it has no cure. Pregnant women involved in polygamous relationships often fear disclosure as their rivals would victimise and ostracise them, some spouses also forbid their wives to undergo VCT for fear of the possible outcome.

DISCUSSION

Background information shows that 97 percent of pregnant women interviewed were married with the highest age group between 20-29 years, 63 percent of the women are Muslims and 43 percent are Waala. Health providers interviewed have been in service for six years and more. About 50 percent of them are above 50 years. Knowledge and awareness in this study refers to having heard of VCT and source of information. It is realised that 84 percent of respondents have heard about VCT with 49 percent of information being given by health workers and volunteers involved in health. This shows that health workers and volunteers are reliable sources of information for educational programmes on VCT. A study in rural antenatal clinic in Southern India to investigate HIV-related knowledge, and perceived benefits and risks of HIV testing showed that 94 percent women had heard of HIV/AIDS and 60 percent of them had relatively good knowledge regarding risk factors for HIV transmission. However, 48 percent did not know that there are "means to prevent mother-to-child HIV transmission compared to this study which recorded lower rate of 6.3 percent women who do counselling to protect their children (Rogers *et al.*, 2006).

A study (Addo, 2006) into *Pregnant Women's Knowledge of and Attitudes to HIV Testing* showed that awareness of HIV/AIDS and VCT is almost universal (99 percent for men and 98 percent for women) and 95 percent for pregnant women. This high level of awareness is borne out in this study where almost all respondents identified HIV/AIDS as a life-threatening condition. Acceptability is the starting point for the success and impact of any health intervention. A number of studies have used both quantitative and qualitative methods to assess the acceptability of VCT in sub-Saharan Africa. In Uganda, a qualitative study found that almost all the women in

their study were willing to take an HIV test. Acceptance rates of between 53 percent – 99.7 percent have reported from various sites in sub-Saharan Africa (Baiden *et al.*, 2006). A study in Lusaka, Zambia, also reported acceptance rates of between 72–90 percent among antenatal clinic attendants (Rogers *et al.*, 2006, Wilkinson *et al.*, 2006). Their findings, however, contrasted with those of Fylkesnes *et al.*, who in a study in some selected rural and urban areas in Zambia, found most of the study populations to be unwilling to undergo VCT (Forsythe *et al.*, 2006). In an account of their experiences, they cautioned against the over-emphasis on high acceptance rates. To assess acceptability of VCT and interventions to reduce Mother-to-Child Transmission of HIV (MCT) in different cities in Africa in the context of ongoing or completed trials fourteen studies located in West (Abidjan, Bobo-Dioulasso), East (Addis Ababa, Nairobi, Mombasa, Dar Es Salaam) and Southern Africa (Blantyre, Lusaka, Harare, Soweto, Durban) were included in a cross-sectional mailing survey about the acceptability of VCT and interventions in antenatal clinics (Baiden *et al.* 2006; Perez *et al.*, 2006). The median overall acceptability of VCT was 65 percent, ranging from 33 percent to 95 percent. However, for those who did not consent to HIV testing the main reasons were fear of divorce in case of positive result represented 37 percent, a need to consult husband/partner (33%), fear of being rejected or abandoned by family members (19 %) and fear of knowing status (11%) [Cartoux *et al.*, 2006].

This study establishes that there is low acceptance of VCT among the pregnant women attending ANC in the Wa Regional Hospital. Health providers and the pregnant women assessed acknowledged that there was low patronage, even though ANC coverage was high. Majority of providers indicated that their fellow staff did not want to do the work. The reasons for this include poor motivation of providers and conflict of interest on the part of management, leading to VCT being placed low on management list of priorities.

In terms of the preferred place to have VCT services, 57 percent of the pregnant women expressed preference of the ANC Unit because they believed it is their main point of call at the hospital. Accordingly, it is more convenient for them to have easy access to both procedures at one locality, more so as most of them have become well acquainted with the staff, thus the element of embarrassment associated with VCT is reduced. Some also commented on the level of effectiveness, professionalism, confidentiality and courteousness accorded them by staff of the ANC. This coupled with the fact that the antenatal staff are better equipped to deal with both mother and unborn child, especially where there is a maternal positive result while the child can be saved makes the ANC Unit more preferable to some pregnant women. They claimed to be more educated and adequately prepared in the management of their pregnancy after each visit to the ANC. A review of Antenatal-Linked VCT in Sub-Saharan Africa suggest that antenatal-linked VCT programmes on other sub-Saharan countries are unlikely to be significantly different from that to be experienced in programmes in Ghana (NACP, 2004). It was found out that 92.6 percent of pregnant women interviewed at the antenatal clinic indicated a willingness to be tested for HIV. However, 51 percent of the women considered HIV testing to

be useful in other sites. A probable implication of this is that most of these women would offer themselves to be tested in the ANC set-up (Baiden *et al.*, 2006), 22 percent of the pregnant women think their first point of call at the hospital, usually the OPD, should be where VCT should be administered. In the opinion of others, the point of dispensing of medication should be the VCT Unit, while some feel that the OPD being where all sick people report for initial medical attention should be recommended for VCT particularly as consultations are undertaken in private. On the contrary, 12 percent of a category think VCT, which is mostly undertaken in private laboratories are the best since they maintain a high level of confidentiality and have very highly trained personnel to undertake the VCT. The laboratories are also known to have the most advanced equipment to deal with such issues. Confidentiality is said to be the trademark of such service providers. Studies have shown that VCT services integrated into already existing health care facility have immediate link and referral to other health service and patronage is increased. A study on VCT acceptance and PMTCT showed that ANC may have a far-reaching public health impact on PMTCT (Baiden *et al.*, 2006).

Barriers in this context refer to the factors that make it difficult for pregnant women to access VCT services, 44 percent of respondents stated that fear, stigma and discrimination was the main reason for them not taking up VCT services and 15 percent said the bad attitude of health workers contributed to fear to access the services. Fifteen percent of respondents said they did not know the service was available at the ANC. Illiteracy is a barrier since such pregnant women do not know the effects of HIV on the foetus. They thus do not appreciate the need and are not motivated to undergo VCT. This may be due to the fact that many educational materials are in the form of pamphlets and posters. In certain cultural practices, especially polygamy, it is seen as demeaning for the man to 'follow' his spouse to the ANC (NACP, 2005). Many husbands are thus left out of the PMTCT and 53 percent of pregnant women interviewed suggested that health education in the communities targeting men would increase uptake. Education as part of focused ANC as well as in the maternity would also contribute to increase uptake. To make VCT services user friendly at ANC, 45 percent of respondents stated that there is the need to create awareness on the procedures in the Unit and 40 percent indicated that staff should be friendly, improve their skills and adhere to strict confidentiality and improve privacy. The service providers should be respectful of their feelings and the emotional turmoil commonly experienced by pregnant women.

The overall implication of the problems associated with service delivery at the ANC is the general reluctance of pregnant women visiting the ANC to undergo VCT. The poor patronage of VCT at the ANC can be attributed to inadequate education. Service providers, apart from undertaking mass education using mass media should have placed emphasis on their target group, that is, the pregnant women in both the rural and urban areas. More women would thus be aware of VCT before getting to the ANC and could make an informed decision when confronted with the issue. According to Baiden *et al.* (2006) although VCT was acceptable in principle, community

sensitization and male involvement should be integrated into VCT programmes.

Conclusion

The purpose of the study was to investigate the factors responsible for the acceptance of VCT at the ANC Unit of the Wa Regional Hospital. The study establishes that there was evidence of low acceptance and this is due to lack of management interest to make VCT a priority, poor infrastructure, poor staffing, inadequate technicalities, bad attitude and poor awareness. There is therefore the need for management to do proper planning and prioritisation of programmes to adhere to guidelines regarding integration of VCT in ANC, and improve on the infrastructure to cope with the congestion. Proper repartitioning and furnishing of the ANC Unit was recommended by respondents to ensure the issue of privacy and confidentiality is resolved.

Management should also ensure the availability and timely supply of test re-agents in all health facilities implementing the PMTCT programme for efficient, effective and quality service delivery. Proper documentation should be improved so that informed decisions can be made. There is need to develop tools for supervising, monitoring and evaluating the content and quality of counselling services and to ensure regular monitoring, supervision and evaluation of activities at the ANC.

More staff should be trained to undertake effective counselling, while the capacities of existing staff are developed. Periodic seminars and workshops should be carried out for staff to properly orient, focus and constantly update their knowledge. Service providers should be encouraged to follow the recommended guidelines so as to increase the level of professionalism in the execution of their duties. Periodic reshuffle of staff would prevent stagnation and loss of interest. It is important for staff to be assigned specific roles, but work as a team so as to complement rather than derail each other. Providers should learn to respect their clients as fellow human beings and must also improve their rapport with and endeavour to gain the confidence of the pregnant women. They must feel that their secrets are safe with the providers.

Intensive education using mass media and personal interactions of providers with the general public, at the community level and peer education is needed. It is particularly very important for VCT to be carried out for both pregnant women and their spouses. Pregnant women must however be singled out as specific target and emphasis placed on educating them about VCT and PMTCT. Service providers should also inculcate aspects of positive living and HIV/AIDS preventive measures in their counselling sessions so as not to create too gloomy a picture about the disease, for example the benefits of VCT and ARV must be emphasised. The general public should be educated about the existence and location of VCT/PMTCT and ARV facilities. Innovative ways of scaling up PMTCT services to other parts of the Wa Municipality should be explored in order to make the services more accessible and available. The study further notes that scaling up VCT to private laboratories and other health centres will increase access and acceptance by

pregnant women. Management should therefore incorporate the scale-up of VCT plan and implementation with clear guidelines within the Wa Municipality to improve acceptance and reduce the cost of travelling by pregnant women. One main limitation of the study methodological approach is that selection bias could occur as a result of errors in identifying the study population. Different types of selection bias occur such as sampling bias, allocation bias and responder bias (Anthony, 2002). Health facility-based studies may be easy to carry out, but it should be noted that the results generated from such studies may not be representative of the entire population. In such studies, information is available on clients that patronise the services and this data can only be used for specific groups but cannot be generalised to the entire population of the catchment area (Susan *et al.*, 2001). Allocation bias could occur as consecutive sampling was used to select respondents for exit interview for the first 15 clients per day. This study was carried out among women attending ANC there may be pregnant women in the community who do not utilize the various services provided by the health facility for specific reasons. These groups of people may be different from those who utilize the services, therefore limiting our ability to generalize the findings to the entire female population of the Wa Municipality. Pregnant women who do not access these services were excluded and not captured as part of the study. However, the effect of this possible bias may be minimized by the fact that the sample was collected from the District Referral Hospital (Upper West Regional Hospital), which have high ANC coverage of 87 percent and could possibly give a picture of what is on the ground.

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