Original article

Pregnant women's satisfaction and comprehension level of information given during HIV Counseling and Testing for PMTCT in public health facilities in Addis Ababa

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Abstract

Background: In Ethiopia PMTCT services began in 2003, but only 0.8% of HIV infections among births to HIV positive mothers were averted in 2005/6 through PMTCT.
Objective: To determine the pregnant women's satisfaction and comprehension level of the information given during pre- and post- HIV counselling and testing for PMTCT in public health centers in Addis Ababa City.
Method: A cross-sectional study was conducted on purposively selected 10 health centers in Addis Ababa from April to May 2008. Data were collected at exit points using a pre-tested structured questionnaire adapted from UNAIDS tools. Descriptive and analytic statistics were computed.
Result: Of the 422 women interviewed, 314 (74.6%) had discussion on MTCT/PMTCT; and 287 (91.4%) of those 314 reported to have comprehended the information. Of the 196 third trimester mothers, 83 (42.3%) were counselled on infant feeding options; among whom 59 (71.1%) reported to have comprehended the explanations well. Two hundred eighty-eight (68.4%) of the 422 clients had held discussions on HIV/AIDS; and 261 (90.6%) reported that they had understood the discussions well. The odds of knowing why HCT is offered during pregnancy was higher among clients who spent 5-15 minutes on discussion with their counsellors [OR=2.1, 95%CI: 1.03, 4.24].
Conclusion: About 3/4th of the ANC clients were covered with PMTCT counseling in the ANC and the vast majority of the women interviewed reported that they were satisfied with the counselling and counsellors' interactions with them. However, when prompted at the exit points, 21% of the mothers didn't know why they were offered HCT particularly during pregnancy. [*Ethiop. J. Health Dev.* 2011;25(2):126-134]

Introduction

According to estimates from the UNAIDS/WHO AIDS epidemic update, the total number of people living with HIV stands at 33.2 million globally. Among these, 15.4 million are women and 2.5 million are children under 15. In 2007, there were a total of 2.5 million new HIV infections and 2.1 million deaths because of AIDS. Every day, over 6800 persons become infected with HIV and over 5700 persons die from AIDS, mostly because of inadequate access to HIV prevention and treatment services (1).

Each year, over half a million newborns are infected with HIV in sub-Saharan Africa through mother-to-child transmission (MTCT) (2). Programs for the prevention of MTCT of HIV include primary prevention of HIV infection among the general population, antenatal HIV testing and counseling, avoiding unintended pregnancy, provision of appropriate antiretroviral (ARV) regimen for mothers and newborns, and support for safer infant feeding options and practices. However, in spite of efforts to scale up, only about 11% of pregnant women living with HIV received antiretroviral drugs for PMTCT globally in 2005, ranging from 77% and 29% in Eastern Europe and Latin America to 3% and 2% in western Africa and southern Asia. As a consequence, more than 1400 children under the age of 15 continue to be infected with HIV every day in resource-constrained settings, and children account for more than 10% of all new infections. Without care and treatment, more than half of these children will die before their second birthday. Fortunately, the risk of parental transmission of HIV is below 2% with antiretroviral treatments, safe delivery and safe infant-feeding; in the absence of these critical interventions, the risk ranges from 20-45% (3).

The PMTCT of HIV program aims at reducing it during pregnancy, birth and during breast-feeding. Ethiopia has adopted the WHO/UNICEF/UNAIDS 4-pronged PMTCT strategy as a key entry point to HIV care for women, men and families. Prevention of MTCT services began in 2003, but suffers from low utilization of antenatal care and delivery services; and only 0.8% of HIV infections among births to HIV positive mothers were averted in 2005/6 through PMTCT programs (4, 5).

The revised version of the Ethiopian PMTCT guideline issued in 2007 promotes integrated and "Opt-Out" approaches as the most appropriate strategy for expanding national access and sustainability of PMTCT services in the country. It also focuses on provision of HAART for all eligible HIV positive pregnant women and use of combined ARV prophylaxis for those who are not eligible for HAART. Compared to other approaches, routine provider-initiated HIV counseling and testing using the opt-out approach for all pregnant women has resulted in greater acceptability, increased opportunity to prevent MTCT, and minimized stigma. Provider-initiated

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routine counseling and testing using the opt-out approach is recommended for all clients seen within the context of maternal care. The clients are given pre-test information in a group or individually on HIV/AIDS and PMTCT and are told that their routine antenatal laboratory tests will include HIV test. The provider also must inform the client that she has the right to say "no" (to opt out), and this decision by no means affects the services she will get from the health facility (4).

A study that examined trends in PMTCT service utilization and rate of MTCT in Addis Ababa showed that the HIV counseling and testing service utilization improved substantially in 2009 following a policy shift to a routine opt-out approach. The proportion of women who received HIV counseling and testing among new ANC attendees increased significantly from 50.7% in 2007 to 84.5% in 2009 following the shift to a routine opt-out testing. Nevertheless, over 10% of the new ANC attendees had not received pretest counseling or testing in 2009 (6).

Since most existing interventions to prevent MTCT of HIV have not been fully implemented in Ethiopia, like other resource-constrained countries, there are still many unanswered operational questions related to preventive strategies of MTCT. It is only after the client receives quality counseling and care from a well trained and competent counselor with good counseling and interpersonal communication skills that the client will make a position decision and adhere to the information given to prevent MTCT (7,8). Client satisfaction in relation to medical care is predictive of clients' decisions regarding choice of health care plans, compliance with regimens and outcome of the management. The leading model for thinking about satisfaction and perceptions of service quality focuses on whether the customers' expectations are "confirmed" or "disconfirmed" by their perceptions of the service they receive. If users' expectations are exceeded by their perceptions of the service they receive, then the users are satisfied or even delighted. If their perceptions of the service falls short of their expectations, then the results are dissatisfaction (9).Client satisfaction is undoubtedly a useful measure and to the extents that it is based on clients' accurate assessment it may provide a direct indication of quality of care. This study therefore, tried to provide baseline information about clients' satisfaction with the counseling service as well as their level of understanding of the information they were given during HIV counseling and testing for PMTCT within ANC context.

Methods

The study was conducted in Addis Ababa City, which is subdivided into ten sub-cities. According to the data from FMoH 2005/6 Health and Health Related Indicators, there were 29 hospitals, 29 health centers, 8 health stations and 116 health posts owned and operated by public and private interests. The ANC coverage by the city administration was about 88%. According to the Addis Ababa HIV/AIDS Prevention and Control Office (AAHAPCO), in 2007 there were 35 PMTCT service rendering health institutions in the metropolis – 26 health centers, 6 hospitals and 3 clinics; and the City hosted a total of 7,995 HIV positive pregnancies and 179,381 orphaned children (4).

A facility-based cross-sectional design was employed from April to May 2008 to assess the clients' satisfaction with PMTCT services as well as their comprehension level of the information given during pre- and post-test counseling sessions in the ANC settings. A total of 10 health centers were purposively selected – one health center from each sub-city based on their ANC/PMTCT clients flow [hospitals were excluded as health centers are mostly the first contact unit for routine ANC clients]. All the studied health centers used the opt-out approach. The sample size of the clients was determined by the assumptions for a single population proportion (taking p = 50%), which yielded a sample size of 422. Based on the proportion of the client flow of the health centers, 41 to 44 clients were drown from each health center and interviewed at the exit points. The study included both new and repeat ANC/PMTCT visit clients until the required number was obtained from their respective health centers if they full filed the following inclusion criteria: all pregnant women attending the selected health centers for ANC/PMTCT service during the data collection period, those who gave their consents for the interview, and those who were healthy and able to respond to the questions without any barrier (including language). On the other hand, ANC clients, who were too sick to respond or to be interviewed, or those who refused to give their consent to participate in the study, were excluded from the study.

The data collection tool was adapted from the UNAIDS tool for evaluating client satisfaction with ANC-linked HCT for prevention of MTCT as well as comprehension level of the information given during counseling sessions. Independent variables were socio-demographic characteristics and duration of counseling, while the dependent variables were clients' comprehension level of the information given during pre- and post-test counseling sessions, and satisfaction with HCT in the ANC setting.

To maintain the data quality, training was given to both data collectors and supervisors. The questionnaire was also translated from English into Amharic and again back into English by different persons. Any discrepancy in the two language versions was corrected and pretest was carried out on 5% of the sample. Finally, making all necessary amendments, the Amharic version questionnaire was used for data collection. Non-staff diploma holder nurses with previous data collection experiences were used for exit interviewing of the clients.

The data were cleaned, checked for quality, coded and analyzed using SPSS version 15.0.Univariate, bivariate

and multivariate analyses were done using appropriate statistical test at a p-value of a 0.05 significance level. Clients' comprehension level of the information was assessed using the clients' reports/perceptions about understanding or comprehension of the information they were given during pre- and post-test counseling sessions through prompting questions; and clients' satisfaction with the HCT service was assessed by using information obtained about the overall satisfaction with the service and also with specific attributes to the interpersonal relationships and the outcome of the care rendered.

Ethical clearance was approved at different levels: by the Ethical Clearance Committee of the School of Public Health and Faculty of Medicine of the AAU and by the Addis Ababa Health Bureau. Informed verbal consent was sought from all the study participants and they were reassured of the anonymity (that no personal identifiers would be collected) and confidentiality of the information they provide. Due respect was given to the norms, values, beliefs and cultures of the clients.

Results

Four hundred one (95.0%) of the clients were residents of Addis Ababa City, 228 (54.0%) of them were in the age group of 16-24. The mean age of the respondents was 24.6 [±4.67] years (the youngest being 16 and the oldest 40 years old). And 268 (63.7%) of the respondents were Orthodox Christians, 143 (34.0%) were Amhara and 371 (88.1%) were married. Concerning educational background, 212 (50.4) of the pregnant women had attended grades 7-12, 238 (56.5%) of the clients were housewives, 233 (55.3%) were first gravid pregnant, 196 (46.4%) were in their 3rd trimester, and 352 (83.4%) of the clients were 1st visit clients (Table 1).

Table 1: **Socio-demographic characteristics of PMTCT attendees in public facilities in Addis Ababa, Ethiopia, May 2008**

Socio-demographic variables of PMTCT clients		No.	%
Place of residence (n=422)	Addis Ababa	401	95.0
	Out of Addis Ababa	21	5.0
Age (n=422)	16-24	228	54.0
	25-34	178	42.2
	35-40	16	3.8
Religion (n=421)	Orthodox	268	63.7
	Islam	109	25.9
	Protestant & catholic	44	10.4
Ethnicity (n=421)	Amhara	143	34.0
	Gurage	124	29.5
	Oromo	87	20.7
	Tigre	30	7.0
	Siltie	20	4.8
	Others	17	4.0
Marital status (n=421)	Married	371	88.1
	Single	34	8.1
	Cohabiting	13	3.1
	Divorced	3	0.7
Educational status/level (n=421)	College level	12	2.9
	Grade 7-12	212	50.4
	Grade 1-6	126	29.9
	Read and write	10	2.3
	Illiterate	61	14.5
Occupation (n=421)	Housewife	238	56.5
	Private	53	12.6
	Merchant	40	9.5
	Jobless	31	7.4
	Daily laborer	20	4.7
	Gov't employee	18	4.3
	Student	12	2.9
	Others	9	2.1
Gravidity (n=421)	One	233	55.3
	Two to five	186	44.2
	Above five	2	0.5
Current gestational age (n=422)	Third trimester	196	46.4
	Second trimester	180	42.7
	First trimester	46	10.9
No. of visits during current pregnancy	First visit	352	83.4
	Second visit	64	15.2
	Third visit	6	1.4

The majority, 283 (67.5%) of the clients specifically came to the health centers to get ANC (antenatal care) services, 46 (11.0%) came both for ANC and PMTCT (prevention of mother to child transmission of HIV)

services, 34 (8.1%) for HIV testing and 17 (4.0%) to discuss about receiving treatment to protect their fetus, and the rest 39 (9.3%) came for different reasons, among which were for treatment of illnesses, for vaccination, and some were referral cases.

Two hundred sixty (61.6%) of the clients were served same day without an appointment, 366 (86.7%) of them stayed in the health centers up to 1.5 hours to get the ANC services (including HCT) (Table 2). Average waiting time to get the services was 39.8 minutes (SD±60.5). Two hundred eighty-five (67.5%) of the clients spent 5 to 15 minutes with the counselors both on pre and post-test discussions. The mean duration of counseling was 14 minutes (SD± 12) for both the pre- and post-test sessions.

Table 2: **Time spent by the PMTCT clients to get the services in public health facilities in Addis Ababa, Ethiopia, May 2008**

Time variables		Frequency	
		No.	%
First appointment to get service	Served same day	260	61.6
	1-7 days	147	34.8
	8-14 days	8	1.9
	15-22 days	7	1.7
Waiting time to get service	<1.5 hour	366	86.7
	1.5 to 3 hour	41	9.7
	>3 hours	15	3.6
Time spent with the counsellor (pre-and post-test sessions altogether)	<5 min	42	10.0
	5 to 15 min	285	67.5
	>15 min	95	22.5

Of the 422 pregnant mothers, 288(68.4%) were counselled on HIV/AIDS (general information about HIV/AIDS with the exception of details about MTCT/PMTCT issues) and regarding their understanding of the information given, 261 (90.6%) of those 288 clients counseled on HIV/AIDS reported that they had understood the discussion well, and 27 (9.4%) said that the counseling was not clear enough to understand (Table 3). Among the points the clients reported to have gained new knowledge as a result of the counseling on HIV/AIDS were that HIV can pass from a positive mother to the fetus, the need for partners testing, counseling on how to live with the virus if they have turned positive, and about HIV transmission and preventions methods in general.

With regard to MTCT/PMTCT issues specifically, 314 (74.6%) of the pregnant mothers were counselled on issues related to it and 287 (91.4%) of those 314 clients reported to have understood the information, 27 (8.6%) reported that they failed to grasp the information, and 107 (25.4%) said that they did not discuss about PMTCT at all (Table 3).The main points the clients reported to have grasped from the counselling were: that HIV can pass from mother to their children during pregnancy, during delivery and through breast milk; the need for HIV testing during pregnancy; and that it is possible to protect the children or to minimize the chance of transmission by use of drugs if the mothers are positive. And 393 (93.12%) of the clients reported that they were requested to have HIV blood test, and 390 (92.4%) were informed about receiving their test results (Table3).

Of those 196 third trimester clients, 83(42.3) reported to have been counselled on infant feeding options, and 113 (57.7%) reported that there was no such discussion at all during pre- or post-test counselling sessions. And of those 83 counselled, 59(71.1%) reported to have understood the counselling well, and 24(28.92%) didn't understand the counselling well (Table 3). Among the information the clients reported to have gained from the counselling on infant feeding options included that it is possible to protect or decrease the chance of transmission of HIV from a positive mother to the fetus through drugs given to the mother and the infant, and that an HIV positive mother may breastfeed her infant exclusively.

Almost all (99.5%) the clients believed that during pregnancy HCT was necessary; however, only 332 (78.7%) of them correctly answered/recalled that antenatal HCT is offered for the purpose of PMTCT mainly, the rest (21.3%) did not know the main reason why they were offered HCT at the health centers particularly when they were pregnant. The likelihood of recalling/knowing why HCT is needed during pregnancy was found to be higher among those inhabitants of Addis Ababa [AOR = 3.25, 95% CI: 1.2, 8.7] (Table 4). The odds of knowing why HCT is offered during pregnancy was also higher among those who attended school to the level of grades 1-6 [AOR = 2.58, 95% CI: 1.27, 5.24] and among those in grades 7-12 (or 10+2) [AOR = 2.74, 95% CI: 1.43, 5.23] respectively compared to those who were illiterate. With respect to gestational age, third trimester clients were more knowledgeable about antenatal HCT compared to first trimester [AOR = 2.56, 95% CI: 1.22, 5.36]. Similarly, clients who spent 5-15 minutes on discussion with their counsellors were also more likely to know why they were offered HCT at the health centers during pregnancy [COR = 2.1, 95%CI: 1.03, 4.24]. The

difference was not, however, statistically significant when adjusted.

Concerning clients' satisfaction with the services, 348 (82.5%) of them said that the counselling room's privacy was maintained, and 357 (98.9%) of the clients were counselled by the same counsellor both in the pre-test and post-test sessions (Table 5). Three hundred eighty nine (92.2%) felt comfortable with the counselors' client handling/respect; 386 (91.5%) were satisfied with the technical competence of the counselors; and if they were given an option to see another counselor, 324 (76.8%) would not like to have done so at that time. Most (91.9%) of the clients believed that they benefited from the counseling discussions; generally 379 (89.8%) of the clients reported being satisfied with the pre-test and/or post-test counseling discussions; and 388 (92.2%) of them would recommend the health centers to their relatives or friends who would like to use the service.

On logistic regression, as opposed to the first trimester gestational age, the odds of being satisfied with the pre- and post-test counseling was higher among 2nd and 3rd trimester clients [COR = 2.493, 95% CI: 1.023, 6.078 and COR = 2.405, 95% CI: 1.003, 5.77, respectively]; and clients who waited for 1½ to 3 hours were less likely to be satisfied with the counseling service [COR = 0.472, 95% CI: 0.237, 0.943] (Table 6). Residence and marital status did not show significant difference with being satisfied in the counseling service. Both the gestational age and waiting time differences were not, however, statistically different when adjusted. With regard to duration of counseling, clients counseled for 5-15 minute and for more than 15 minutes were about 8 and 11 times more likely to be satisfied with the counseling service, respectively, than those counseled for less than 5 minutes [AOR = 8.132, 95% CI: 3.501, 18.892 and AOR = 11.06, 95% CI: 3.331, 36.737, respectively]. Satisfaction with counseling was not associated with being appointed for the service or with other socio-demographic variables (not tabulated here).

Table 3: **Major counseling topics and clients' understanding level among the ANC clients as reported at exit interview in public health centers in Addis Ababa, Ethiopia, May 2008 (N=422)**

PMTCT Counseling topics	Clients received counseling?				Understanding of the information given (among those counseled) as reported by the clients	
	Yes		No		Understood well	Not understood well
	No.	%	No.	%	No (%)	No (%)
Informed about HIV (general information) (n=421)*	288	68.4	133	31.6	261(90.6)	27(9.4)
Informed about MTCT/PMTCT (n=421)**	314	74.6	107	25.4	287(91.4)	27(28.9)
Informed about infant feeding options to 3rd trimester	83	42.3	113	57.7	59(71.1)	24(28.9)
Clients (n=196)	393	93.1	29	6.9		
Informed about having an HIV test	390	92.4	32	7.6		
Informed about receiving the test result	319	75.6	103	24.4		
Asked about issues associated with having been tested some time ago	245	58.1	177	41.9		

* General information about HIV/AIDS, including mode of transmission and prevention

** Issues related to MTCT or PMTCT of HIV specifically as related to the clients

Table 4: **Association between knowledge why HCT is emphasized/given during pregnancy and clients' variable in Addis Ababa, Ethiopia, May 2008**

Variables	Why HCT is emphasized/giving during pregnancy			Adjusted Odds Ratio (95% CI)
	For PMTCT	Don't know	Total	
Residence				
Addis Ababa	322 (80.3%)	79 (19.7%)	401	3.25 (1.2, 8.7)
Out of Addis Ababa	10 (47.6%)	11 (52.4%)	21	1.00
Total	**332**	**90**	**422**	
Educational status				
Illiterate	37 (60.7%)	24 (39.3%)	61	1.00
Read/write	9 (90.0%)	1 (10.0%)	10	4.48 (0.52, 38.3)
Grade 1-6	103 (81.7%)	23 (18.3%)	126	**2.58 (1.27, 5.24)**
Grade 7-12	174 (82.1%)	38 (17.9%)	212	**2.74 (1.43, 5.23)**
College	9 (75.0%)	3 (25.0%)	12	1.76 (0.42, 7.42)
Total	**332 (78.9%)**	**89 (21.1%)**	**421**	
Gestational age				
1st trimester	30 (65.2%)	16 (34.8%)	46	1.00
2nd trimester	142 (78.9%)	38 (21.1%)	180	2.0 (0.96, 4.17)
3rd trimester	160 (81.6%)	36 (18.4%)	196	**2.56 (1.22, 5.36)**
Total	**332 (78.7%)**	**90 (21.3%)**	**422**	
Duration of counseling				
< 5 min	28 (66.7%)	14 (33.3%)	42	1.00
5 to 15 min	230 (80.7%)	55 (19.3%)	285	1.71 (0.81, 3.65)
> 15 min	74 (77.9%)	21 (22.1%)	95	1.57 (0.71, 3.91)
Total	**332 (78.7%)**	**90 (21.3%)**	**422**	

Table 5: **Clients' satisfaction with the PMTCT sites services in public health facilities in Addis Ababa, Ethiopia, May 2008**

Satisfaction Issues	Yes		No		Total
	No.	%	No.	%	
Was there enough privacy during the counselling?	348	82.5	74	17.5	422
Did you see same counsellor before and after the test?	357	98.9	4	1.1	361
Felt comfortable with counselor's respect/handling	389	92.2	33	7.8	422
Satisfied with technical competence of the counsellor?	386	91.5	36	8.5	422
Do you want to see another counsellor just this time?	98	23.2	324	76.8	422
Do you believe that you have benefited (gained new information) from the counselings?	388	21.9	34	8.1	422
Do you recommend this health center to others?	388	92.2	33	7.8	421
Generally are you satisfied with the pre-and or post-test counselling discussion?	379	89.8	43	10.2	422

Table 6: **Comparison of counseling service satisfaction of clients by socio-demographic characteristics and time a variable in public health facilities in Addis Ababa, Ethiopia, may 2008 (n=422)**

Variables	Satisfied with the counseling	@ Adjusted Odds Ratio (95% CI)
Gestational age		
1st trimester	37 (80.4%)	1
2nd trimester	164 (91.1%)	2.07 (0.77, 4,47)
3rd trimester	178 (90.8%)	1.97 (0.73, 5.25)
Waiting time		
Up to 90 min	330 (90.2%)	1
1.5 to 3 hour	35 (85.4$)	0.93 (0.32, 2.59)
> 3 hours	14 (93.3%)	2.89 (0.33, 25.58)
Residence/Address		
Addis Ababa	359 (89.5%)	1
Out of Addis Ababa	20 (95.2$)	2.23 (0.25, 19.67)
Marital status (n=421)		
Unmarried	33 (97.1%)	1
Married	330 (88.9%)	0.25 (0.03, 2.10)
Divorced	3 (100.0%)	--
Cohabiting	12 (92.3%)	0.25 (0.01, 4.93)
Duration of counseling		
< 5 min	27 (64.3%)	1
5 to 15 min	263 (92.3%)	**8.13 (3.50, 18.89)***
> 15 min	89 (93.7%)	**11.06 (3.33, 36 74)***
Appointed for other day		
Yes	15 (9.3%)	1
No	28 (10.8%)	0.95 (0.433, 2.10)

@ Adjusted for age category, gestational age, waiting time, residence address, marital status, Duration of counseling and appointment for other day

Discussion

The Ethiopian PMTCT guideline, which promotes an opt-out approach, recommends that clients are given pretest information, and their right to say "no" to HIV test be respected (4).The exit point interviews, however, revealed that only 68.4 % of the pregnant mothers were counseled about HIV/AIDS even though 93.1% of them were informed to have an HIV blood test. From this figure, one can see that a significant number of the clients were simply ordered to have blood test for HIV without the clients' informed consent and prior pretest individual or group counseling. Such initial experience may negatively influence the subsequent attendances as the mere HIV testing averts little MTCT (10, 11). The majority (90.6%) of those counseled about HIV/AIDS, however, reported to have comprehended the information. This is in line with the results of a study done in Thailand (12).

Almost $3/4^{th}$ of the clients reported to have been counseled about issues associated with MTCT/PMTC, but only less than half (42.4%) of third trimester clients were counseled on infant feeding options. Of those 83 third trimester clients who reported having been counseled on infant feeding options, only 71.1% reported to have comprehended the message of the counseling. A similar finding was observed in Kenya (11), which indicated that MTCT/PMTCT knowledge was inadequate as clients could not recall information given during counselling.

HCT is a critical component of PMTCT programs and has been a recommended practice in overall HIV/AIDS prevention and care (3). Even though almost all the clients believed that HCT was beneficial during pregnancy, only 78.7% correctly understood the purpose why HCT is needed particularly during pregnancy. This may be because of the short counseling time, as evidenced by association of longer counseling time (5-15 minutes) and why pregnant mothers undergo HCT particularly during their pregnancy time; or it may be due to the client load as reported by the clients. Knowledge of why pregnant mothers undergo HCT during pregnancy was also found to be higher among residents of Addis Ababa, in those who attended school up to grade 12, and among those clients who were in their 3rd trimester ($p < 0.05$). This may be due to the fact that these groups of clients relatively had more access to information as a result of their schooling or repeated ANC attendance.

Availability of a separate room for privacy for counseling is one of the minimum prerequisites in establishing HCT services; and conversations between clients and counselors should not be seen or overheard by others (13, 14). In this study, however, 17.5% of the clients said that the counseling rooms in some facilities had no privacy. This violates clients' rights to confidentiality during counseling. Moreover, the clients might have become reluctant to openly/freely discuss personal issues, and might have not benefited from the service as expected.

Even though the majority of the clients were served the same day without an appointment, a significant number (38.4%) of them reported to have been told to come back on other days for the service for different reasons. This is likely to have discouraged potential clients from utilizing the services, resulting in low uptake since this initial experience could have negatively influenced subsequent attendance (11).

Recall bias is a limitation of reporting on waiting time and can lead to misclassification. In other countries, 90 minutes is regarded as the acceptable waiting time to get the service the clients want (11). The vast majority (86.7%) of the clients stayed in the health centers only up to 90 minutes, and the average waiting time was 39.8 minutes ($\pm$ 60.5). This is much better than the finding obtained from a study done in Kenya (11), in which only 3.9% waited for less than 90 minutes. This may have encouraged the clients to utilize the service and eventually improve the service out come.

Client satisfaction may be considered to be one of the desired outcomes of care. An expression of satisfaction or dissatisfaction is also the client's judgment on the quality of care in all its aspects, but particularly pertaining to the interpersonal process. However, it should be remembered that, unless special precautions are taken, clients may have been reluctant to reveal their opinions for fear of alienating their attendants (15). Concerning clients' satisfaction with the services, more than 9/10 of them felt comfortable with the counselors' client handling/respect; were satisfied with technical competence of the counselors; and believed that they had benefited from the counseling sessions. Generally, 89.8% of the clients reported being satisfied with the pretest and/or post testing counseling discussions. This finding is similar to the one done in Thailand (12) in which satisfaction with the service was associated with the duration of counseling.

To conclude, the exit interview revealed that the basic topics were touched during most of the pre-and/or post-test sessions, and the majority of those counseled reported to have comprehended most of the information. However, nearly a quarter of the clients didn't recall or understand why they were offered HCT particularly during their pregnancy. The vast majority of the women interviewed also reported being satisfied overall with the counseling and counselors' interactions, and believed to have gained new information, and yet a significant number of the clients indicated to have spent too short counseling time with the counselors. Therefore, concerted effort need to be made to further improve the group or individual pre- and post-test counseling to avert MTCT of HIV

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