Original article

Quality of HIV/AIDS voluntary counseling and testing services in VCT centers, Kassala and North Kordofan States, Sudan

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Abstract

The quality of HIV/AIDS voluntary counseling and testing (VCT) services attributed to adherence to what is approved and enacted by national and international guidelines for HIV/AIDS voluntary counseling and testing, as well as providing continuous training for service providers, providing basic infrastructure for service delivery centers, and including: preparing counseling rooms, laboratories, waiting rooms, and IEC materials. A cross-sectional descriptive institutional-based study was conducted in June 2016, aimed to assessment of the quality of HIV/AIDS voluntary counseling and testing services in Kassala and North Kordofan States. A total sample size of VCT providers (n = 41) was selected from all VCT centers in both states. Observation checklist and two self-administered questionnaires, and checked for consistency having closed questions were distributed to "counselors and nurse" and lab technicians. The findings showed that All VCT centers had used a rapid test strategy for HIV testing. All admission clients who have had HIV testing undergo to post-counseling session. Most VCT provides had received training in VCT. All lab rooms in VCT centers had adequate area, hand washing supplies, disinfection, and sterilization system, a good lighting and aerification system, safe biohazard waste disposal. There was a significant correlation relationship between experience duration and training of VCT providers (P = 0.010). There was a significant correlation relationship between job title and training of VCT providers (P = 0.008). This study recommends that: design a comprehensive training course on VCT should be included in their training curricula to promote the services of VCT and promote the concepts of total quality among service providers.

Keywords: Quality, HIV/AIDS, voluntary, counseling testing, centers, Kassala, Kordofan.

Introduction

AIDS indicates for acquired immunodeficiency syndrome; a pattern of devastation infections caused by the human immunodeficiency virus (HIV), which assault and destructs certain white blood cells that are essential to the body's immune system, people with HIV are infected for life and will probably die from opportunistic infections resulting from the weakening of their immune system [1].

HIV/AIDS voluntary counseling and testing (VCT) is the process by which a voluntary counseling and testing individual undergoes counseling, allowing him or her to make an informed choice about being tested for HIV. VCT is a combination process includes pre- and post-test counseling, has become increasingly important in national and international prevention and care efforts [2]. It is an indispensable link between HIV/AIDS prevention and HIV treatment care and support. VCT improves and sustains

behavior change, and links with such interventions as prevention of mother-to-child transmission (PMTCT), prevention of sexual transmission infections (STIs), prevention and treatment of tuberculosis (TB) and other opportunistic infections (OIs), and provision of antiretrovirals (ARVs) as appropriate, [3]. It is an HIV intervention that includes both voluntary pre- and post-test counseling and voluntary HIV testing, [4]. Providers of client-initiated HIV testing and counseling typically conduct an education session and a risk assessment, with a primary focus on prevention counseling for clients both prior to and after receiving their test results [5]. VCT should be done with the client's knowledge and consent. The individual should receive adequate explanation that the testing is voluntary, should feel free to grant or to withhold consent [6]. All persons receiving an HIV test must give informed consent before being tested. No person shall be tested without their consent. This legislation provides for those who are not able to give consent [7]. Consent will be provided verbally and a witnessed informed consent form will be completed by the counselor [8]. Post-test counseling is an integral component of the HIV testing process. All individuals undergoing HIV testing must be counseled when their test results are given, regardless of the test result. The health care provider and the patient should then jointly assess whether the patient needs referral to more extensive post-test counseling session or additional prevention support [9]. VCT services must assure that information gathered from testing or counseling of individuals is kept strictly confidential, regardless of sex, age, ethnicity, profession, or other social-demographic attribute [6].

Countries are urged to develop services to respond to youth-specific needs either all in one service or through referral networks and linkages among providers. The specific HIV related issues of young people include peer pressure and self-esteem; assertiveness and negotiation skills; risk-taking; alcohol and other substance abuse; STIs; contraception; condoms and barriers to their use; sexual and familial relationships; abuse and violence, including rape; pregnancy and fertility; disclosure; and HIV treatment [8].

Capacity-building goes beyond training and the attainment of skills. It includes the strengthening of organizations and systems, and establishing and supporting linkages and networks. Training and support for all staff are essential components of capacity-building. Central coordination is recommended to build and support capacity for the effective running and development of a testing and counseling service or program. The scaling up of VCT services requires an effective system of management and coordination to ensure that policies,

guidelines, systems, resources, roles, responsibilities and deadlines are translated into program activities and implemented to achieve HIV testing and counseling service delivery as equitably as possible [10].

The achievement of high quality services is dependent on a good work force, in this case made up of health care workers, professional and lay counselors. Quality testing tends on a well-functioning national laboratory infrastructure and network. All HIV testing and counseling places must ensure that the policies, training and infrastructure needed to support patient confidentiality and to protect patient privacy are in place [7].

Materials and methods

An institutional-based descriptive cross-sectional study was carried out in June 2016 among VCT services providers to assess the quality of HIV counseling and testing services delivery in VCT centers in Kassala and El-Obeid cities, Sudan. The survey included all VCT centers in the study area; it is covered HIV/AIDS VCT providers. Self-administered questionnaires having closed questions were distributed to counselors, lab technicians, and nurses.

Sample techniques

The survey covered VCT centers in the study area to evaluate the quality of HIV/AIDS counseling and testing service delivery, it is comprised of counselors, lab technicians, and nurses. A total of (n= 41) VCT provider filled a self-administered questionnaires who were selected. All the personnel who volunteered to participate in the survey were included (100% response rate). Below VCT centers were surveyed:

VCT centers in Kassala cities: a number of this site is (5) as: (Kassala Teaching Hospital, Health insurance, New Kassala Hospital, Kassala Military Hospital, Police Hospital).

VCT centers in El-Obeid town: a number of this site is (5) as: (El-Obeid Teaching Hospital, El-Obeid Military Hospital, Wad Elyas Health Center, Relief Islamic Agency, Kuwaiti Hospital).

Data collection

The researchers designed observation check list and two self-administered questionnaires, and checked for consistency having closed questions were also distributed to “counselors and nurse” and lab technician, it used to collect qualitative and quantitative data from VCT center under study. The observation check list used to assess the infrastructures of VCT centers and comprise the following variables; (information about staff, qualification of coordinators, organization and coordination, counseling room, lab and monitoring and evaluation tools). The self-administered questionnaires used to collect data on basic information about demographics characteristics and adherence to counseling and testing standards.

Ethical consideration

An approval received from the appropriate management authority (Sudan National HIV/AIDS Control Program). Written consent, after explanation about the study, was obtained from the study participants. They were also assured that the information provided would be used only for research purpose and would therefore be strictly anonymous and dealt with confidentially. The results were also availed to, Sate Ministry of Health, Sudan National HIV/AIDS Control Programme in Kassala and North Kordofan States.

Data processing and analysis

After taking sample and filling the questionnaire and cleaning, the data were entered and analyzed using the Statistical Package of Social Sciences (SPSS) version (16.0) software and chi-square test was used to determine an association between a number of independents and dependent variables, (P value <0.05 was considered significant).

Results

A cross-sectional descriptive study was conducted among VCT providers of Kassala and North Kordofan states, this study aimed to assess the quality of VCT services. (10) VCT centers were assessed. A total coverage of (41) VCT providers; (29) counselors, (6) nurses, and (6) laboratory personnel were participated (100% response rate) in the study from (10) VCT centers. Among the total participants (17.1%) were male whereas (82.9%) were females. (9.8%) of VCT service providers had education qualified secondary, (78.05%) were university graduate, (12.2%) were postgraduate. (7.3%) of VCT service providers their experience was less than one year, (9.8%) from one to two years, and (82.9%) of them had more than two years. All VCT centers had used a rapid test strategy for HIV testing. All admission clients who have had HIV testing undergo to post-counseling session. According to the national guidelines and standard operational procedures for HIV/AIDS VCT, all lab rooms in VCT centers had adequate area, hand washing supplies, disinfection and sterilization system, a good lighting and aerification system, safe biohazard waste disposal (Table 1), and (90%) had personal protection tools. (10%) of lab rooms have two chairs, (70%) have three chairs, and (10%) have four chairs (Table 2). There was a significant correlation relationship between experience duration and training of VCT providers. (P = 0.010) (Table 3). There was a significant correlation relationship between job title and training of VCT providers (P = 0.008) (Table 4).

Table 1. Lab technicians adherence to counseling and testing standards according the NGSOP for HIV/AIDS VCT, Kassala and El-Obeid cities, (n=12).

Variables	Frequency	Percent (%)
What types of test kits do you use?		
Startpak	2	16.7%
Uningold	8	83.8%
How to disposal of medical waste?		
Waste bins	6	50%
Bio hazard bags	4	33.3%
Biohazard bags then into waste bins	1	8.3 %
Safety Box	1	8.3 %
What are lab records using?		
Lab register	2	16.6%
Lab request Form	1	8.3 %
All registers	9	75%
Do you have sufficient stocks of kits?		
Yes	11	91.7%
No	1	8.3%
Availability of personal protection tools		
Yes	11	91.7%
No	1	8.3%

Table 2. Infrastructure of VCT centers according the NGSOP for HIV/AIDS VCT, Kassala and El-Obeid cities (n=10).

Variables	Percent	
	Yes	No
Availability of counseling rooms	90%	10%
Availability of chairs in counseling rooms	90%	10%
Availability of tables in counseling rooms	80%	20%
Availability of good lighting and aerification	90%	10%
Availability of confidentiality	70%	30%
Availability of VCT IEC materials	70%	30%
Number of counseling rooms		
One room	70%	
Two rooms	20%	
Not found	10%	
Number of chairs in counseling rooms		
(1-2) chair	20%	
(3) chairs	10%	
(4) chairs	70%	
Organization and coordination of VCT centers		
VCT guidelines	40%	60%
Waiting rooms	60%	40%
Meeting	40%	60%

Table 3. Correlation relationship between experience duration and training of VCT providers, Kassala and El-Obeid cities, (n=41).

Experience duration	**Training**		**Total**
	Yes	No	
<1 year	1	2	3
	2.6	0.4	
1-2 years	3	1	4
	3.5	0.5	
>2 years	17	0	17
	14.9	2.1	
Others	15	2	17
	14.9	2.1	
Total	36	5	41

X^2	*df*	*P-value*
11.290	*3*	*0.010*

Table 4. Correlation relationship between job title and training of VCT providers, Kassala and El-Obeid cities, (n=41).

Job title	**Training**		**Total**
	Yes	No	
Trained Counselor	27	2	29
	25.5	3.5	
Nurse	3	3	6
	5.3	0.7	
Lab Technician	6	0	6
	5.3	0.7	
Total	36	5	41

X^2	*df*	*P-value*
9.602	*2*	*0.008*

Discussion

The present study indicated that (12.2%) of VCT providers had education-qualified postgraduate, (78.05%) graduate and (9.8%) of them were secondary. The national guidelines and standard operational procedures for HIV/AIDS VCT recommend that "VCT should be carried out by qualified personnel were had at least high education level or an equivalent" [6].

The present study showed that (82.9%) of VCT providers had experience of more than 2 years, this considered higher than a similar study conducted in Kampala district, Uganda among HCT service providers, (33.3%) of VCT providers had experience of more than 2 years [11].

The majority of VCT centers (90%) of VCT working days was (2-5 days), this considered higher than a similar study

conducted in Kampala district, Uganda among HCT service providers, that number of VCT weekdays was (less than a week) in (38.2%) of health facilities [11]. As the National Guidelines and Standard Operational Procedures for HIV/AIDS VCT recommend that "VCT should be available and carried out through days of work", [6].

The present study showed that the majority of VCT centers (90%) have counseling rooms (Table 2), this study corresponds with similar conducted in Kampala district, Uganda among HCT providers, that counseling rooms were available in up to (90%) of the facilities [11].

The present study finding that (72.4%) of the VCT providers obtained only verbal consent (Table 5). This is high as compared with the same study conducted in Kampala district, Uganda among HCT providers, which indicated that (85%) of the health workers obtained only verbal consent, [11]. According to the National Guidelines for HIV Testing and Counseling in Kenya, "all persons receiving an HIV test must give informed consent prior to being tested" [7]. As the Standards for Quality HIV Care "The staff obtains informed consent from each person tested" [12].

The present study showed that the majority of VCT providers (86.2%) were given client opportunity to withdrawal after consent (Table 5). The National Guidelines and Standard Operational Procedures for HIV/AIDS VCT recommend that "clients they have the freedom to withdraw" [6].

Table 5. Dealing with admission clients in pre-counseling sessions, Kassala and El-Obeid cities, (n= 29)

Variables	Frequency	Percent (%)
How many clients whom dealing with through day?		
(1 – 5)	21	72,4%
(6 – 10)	4	13,8%
(11 – 15)	4	13,8%
How to obtain informed consent?		
Verbal	21	72.4%
Written	8	27.6%
Do you give clients opportunities for withdrawal after consent?		
Yes	25	86.2%
No	4	13.8%
How to affirm confidentiality?		
Use security registers	16	39.02%
Sharing information between counselor and Client	2	6.9%
All the above	11	37.9%

The present study showed that the majority of VCT providers (93.1%) gave the results to the clients on the same day of testing (Table 6), the present study correspond with a similar study conducted in Kampala district, Uganda, at least (97%) of

counselors reported their clients to have gotten results on the same day of testing, [11]. According to the Guidelines for HIV Counseling and Testing in Ethiopia, "All HCT sites are encouraged to provide results as soon as possible after the test" [13]. According to the National Guidelines for HIV Testing and Counseling in Kenya, "The results of a person's HIV test are confidential and should be offered to the person being tested as soon as they are available" [7] .

Table 6. Dealing with admission clients in post-counseling sessions, Kassala and El-Obeid cities, (n= 29).

Variables	Frequency	Percent (%)
Delivery of HIV testing result		
In day	27	93.1%
Other	2	6.9%
Clients waiting time in minutes to receive result:		
Less than 30 minutes	18	62.06%
30 – 45 minutes	10	34.5%
More than hours	1	3.4%
Post-counseling implementation		
Yes	27	93.1%
No	2	6.9%
How to deal with people positive HIV testing?		
Referral	11	37.9%
Start treatment	8	27.6%
Not referred	1	3.4%
Referral and Start treatment	9	31.03%
Available of referral formats		
Yes	28	96.6%
No	1	3.4%

The present study showed that the majority of VCT providers (93.1%) gave post-test counseling to all clients who tested HIV, which is high as compared with a similar study conducted in Kampala district, Uganda, that (90%) of the health workers who gave post-test counseling to all who test [11]. According to the National Guidelines for HIV Testing and Counseling in Kenya, "After the HIV test is complete, the HTC service provider must offer post-test counseling to the client or patient based on the results" [7].

Most of the VCT providers (72.4%) were referred people positive tested for (VCT/ART) and (96.6%) of VCT service providers had used referral forms. This finding is lower than a similar study conducted in Kampala district, Uganda, after a positive test, (86%) health workers referred

their clients for chronic care [11]. The National Guidelines and Standard Operational Procedures for HIV/AIDS VCT recommend that "One of the main reasons for VCT carry out is the facilitation of treatment and support services to people positive test. All sites should be client referral and their follow-up" [6]. As the National Guidelines for HIV Testing and Counseling in Kenya, "For a referral to be effective and standardized, HTC services should have standard referral forms" [7].

Our study found that (87.8%) of VCT providers had received training in VCT (Table 7), this finding is high as compared with the same study conducted in Kampala district, Uganda among HCT providers, Indicated that (72.6%) of HCT providers had received in-service training in HCT [11]. According to the Guidelines for HIV Counseling and Testing in Ethiopia, "Appropriate knowledge and skill through standardized training in HCT are essential for the provision of efficient and quality HCT services" [13]. The National Guidelines for HIV Testing and Counseling in Kenya recommended that "All HTC service providers must receive adequate training" [7]. According to the Standards for Quality HIV Care, "The organization provides adequate time for all staff to participate in relevant education and training opportunities" [12].

The current study showed that (28.6%) of those had received a training period of one week, (50%) two weeks, and (35.7%) three weeks (Table 7). The National Guidelines and Standard Operational Procedures for HIV/AIDS VCT recommend that "training with teaching should be take up except less than two weeks, and one week of experiments", [6].

The present study showed that (48%) of VCT providers had received refresh training in VCT. The National Guidelines and Standard Operational Procedures for HIV/AIDS VCT recommend that "VCT providers should update their information about VCT services through refresh training and should be an encouragement and support them" [6].

Only (40.5%) VCT centers had and used VCT guidelines, the present study low as compared with a similar study conducted in Kampala district, Uganda that (50%) health facilities had and ever used HCT guidelines [11]. The current study showed that (78.8%) of VCT providers used the national guidelines for HIV/AIDS VCT, which high than a similar study conducted in Kampala district, Uganda, that (72.73%) were used MOH guidelines, [11].

All VCT centers had received support supervision, the present result very excellent as compared with a similar study conducted in Kampala district, Uganda, only (39%) of the counselors had never received supportive supervision from DHO/MOH or partners [11]. As the National Guidelines for HIV Testing

and Counseling in Kenya, "Counseling support supervision is important for burn out of individual HTC service providers and maintaining high-quality communications between providers and clients or patients" [7].

Our study indicated that (70%) VCT centers had IEC materials, which are high than a similar study conducted in Kampala district, Uganda, where (11%) of the health facilities had IEC materials [11]. According to the Guidelines for HIV Counseling and Testing in Ethiopia, IEC materials should available at all HCT sites particularly in VCT sites, to provide education to waiting clients [13] .

Table 7. Distribution of VCT providers according their Training, Kassala and El-Obeid cities, Sudan (n= 41).

Variables	Frequency	Percent (%)
Training of VCT providers in VCT		
Yes	36	87.8%
No	5	12.2%
Level of training		
Local level	21	51.2%
National level	7	17.1%
Local and National level	8	19.5%
Period of training		
One week	8	28.6%
Two weeks	14	50%
Three weeks	10	35.7%
Refresh training		
Yes	20	48.8%
No	21	51.2%
Number of training workshop		
(1 – 3) training workshop	21	51.2%
(4 – 6) training workshop	8	22.2%
(7 – 9) training workshop	7	17.1%

Conclusions

The quality of VCT services delivery in VCT centers and health facilities is very good. There most of VCT providers had received training in VCT. Majority of VCT centers have had counseling rooms. Most of VCT providers were obtained on consent verbal. There was a significant correlation relationship between experience duration and training of VCT providers. ($P = 0.010$). Design comprehensive training course on VCT should be included in their training curricula in order to promote the services of VCT. Capacity building of VCT providers through supplying refreshes trainings for the VCT service providers in HIV Counseling and Testing and promote the concepts of total quality among service providers.

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