

# Knowledge, Attitude and Beliefs of the Patients about Condom use as Seen in Mulago Referral Hospital, Uganda, between 2008-2011

<sup>1</sup>Henry Ojiambo, <sup>2</sup>Emmanuel Othieno and <sup>3</sup>Andrew Livex Okwi

<sup>1</sup>Infectious Diseases Institute,

Makerere University College of Health Sciences (MakCHS). P.O. Box 22418 Kampala, Uganda

<sup>2</sup>Department of Pathology, School of Biomedical Sciences,

<sup>3</sup>Department of Pathology, School of Biomedical Sciences,

Makerere University College of Health Sciences (MakCHS) P.O. Box 7072 Kampala, Uganda

## Article history

Received: 22-11-2016

Revised: 26-04-2017

Accepted: 08-05-2017

## Corresponding Author:

Andrew Livex Okwi

Department of Pathology,

School of Biomedical

Sciences, Makerere University

College of Health Sciences

(MakCHS) P.O. Box 7072

Kampala, Uganda

Tell: +256 772 481887.

Email: andrewol@chs.mak.ac.ug

**Abstract:** This was cross sectional, descriptive laboratory based study, whose objective was to determine knowledge, attitude and beliefs of the patients about condom use and its associated benefits. The study was done at Assessment Center, Mulago Referral Hospital, Uganda. The sample size of 113 was calculated for the study and 100 participants enrolled for the study (74 males; 26 females). Their ages ranged between (16-63) years with mean age of 39.5. A structured questionnaire was used to capture the data from the participants after consenting. Findings showed that although all the respondents were aware of a condom, only 6% of the respondents with informal education were aware of it compared to 10% with primary education ( $p>0.05$ ). Notably, 60.6% and 63.6% of the participants with secondary and tertiary education respectively, were aware of condom compared to those with informal and primary education ( $p<0.001$ ). Thirty three percent of the respondents claimed to know how to use a condom and 67% claimed they did not know how to use it ( $p<0.001$ ). Surprisingly, 60.6% of the respondents who claimed to know how to use condom had positive attitude towards condom use compared to 39.4% with negative attitude. Notably, 76.9% of the respondents with negative attitude felt that a condom “limits sexual satisfaction, while 61.5% were of the view that “condom has bad smell”. However, 73% of the respondents believed that condom use could prevent STI/HIV transmission. In conclusion the majority of the patients with low education background did not know how to use a condom, although they were aware of it. The attitude and beliefs about condom use varied among the respondents. There is therefore a need to sensitize the communities about condom use and its associated benefits.

**Keywords:** Knowledge, Attitude, Belief, Condom, Mulago Hospital

## Introduction

*Trichomonas vaginalis* is a protozoan parasite transmitted principally through sexual intercourse. Infection with the organism can cause vaginitis in women and urethritis in men. Despite a relative paucity of studies on the prevalence and incidence of trichomoniasis, recent publications suggest that *T. vaginalis* is one of the most common sexually transmitted infections (Shira *et al.*, 2009). Approximately 180 million women worldwide may be infected with *T. vaginalis* (Anorlu *et al.*, 2001). The studies on condom use have revealed that the acquisition

and transmission of *T. vaginalis* and other sexually transmitted infections, has been linked to knowledge and awareness, attitudes and beliefs of the communities about condom use (Ndyanabangi *et al.*, 1998). For example studies done in the districts of Mbale, Kabale and Rukunguri showed that the reduction in the transmission of sexually transmitted diseases including TV was linked to increased knowledge about condom use (Ndyanabangi *et al.*, 1998). Other similar, studies also found that increased awareness on the use of condoms was associated with the reduction of STI/HIV (Asimwe *et al.*, 1997). This study was therefore

conceptualized with the cardinal aim of determining the knowledge, attitude and beliefs of patients about condom use in Mulago Referral hospital.

## Materials and Methods

### Study Design

This was cross sectional descriptive laboratory based study.

### Study Site

The study was done at Assessment Center, Mulago Hospital, which is located on old Mulago hill, North of Kampala city (Fig. 1). The map was adopted after images for map showing Mulago hospital <https://www.google.com/#q=images+for+map+showing+mulago+hospital&> (Accessed on 15/11/2016).

### Study Population

These were patients between 16-63 years, who were consecutively enrolled from Assessment Center after obtaining their consent. These were outpatients from urban and peri urban areas of Kampala city who were referred to specialized clinics within Mulago for

diagnosis and to initiate therapy. Participants below 18 years were consented through their parents/guardians.

### Sample Size

The minimum sample size was calculated using Kish and Leslie formula adopted after (Kirkwood, 1988) as indicated below:

$$N = \frac{(Z^2 P Q)}{M^2}$$

Where:

$N$  = Required minimum sample size

$Z$  = The confidence interval (95%) where Confidence Limit (CL) is  $\pm 1.96$

$M$  = The precision (5%)

$P$  = Estimated prevalence of *Trichomonus vaginalis* (8%)

$Q$  = 100-P

Using this formula, the estimated sample size was calculated as indicated below:

$$n = \frac{(1.96)^2 \times 8 \times (100 - 8)}{5^2} = 113$$

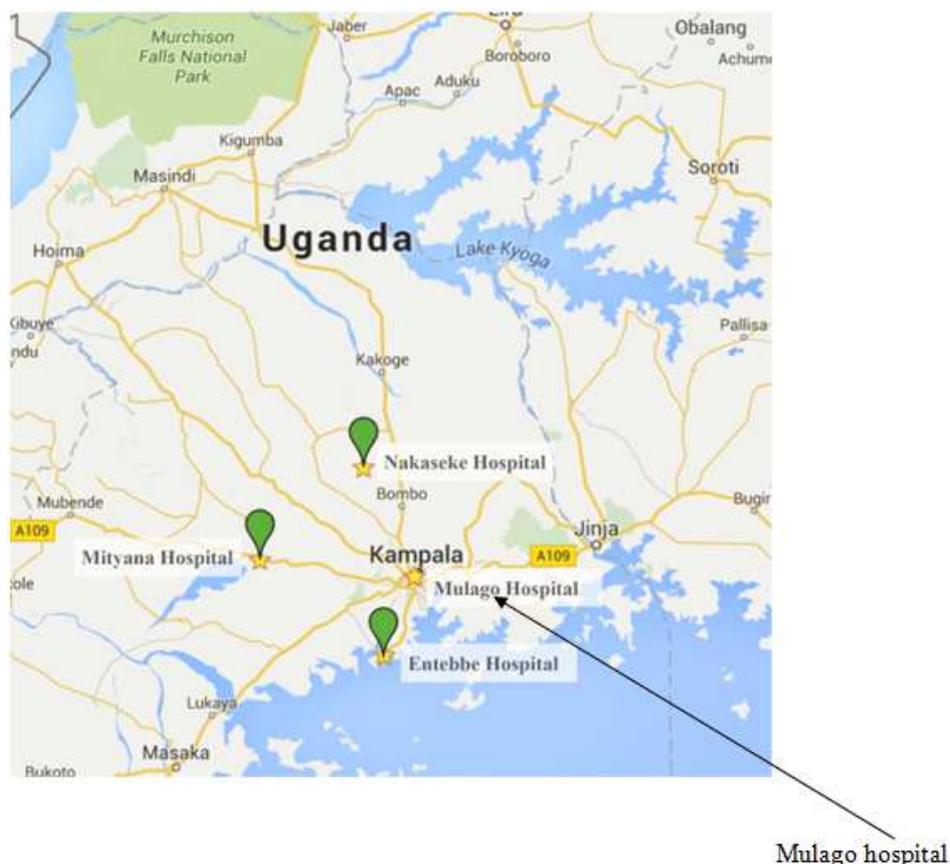


Fig. 1. Map of Uganda showing Mulago hospital located in Kampala city

### Data Collection Procedure

With the assistance of the nursing officer in-charge of the clinic, the patients were consecutively enrolled into the study as they came to Assessment Center. They were first briefed on the purpose of the study. The consent form was administered either in English or any other local language to legible participants. Those who did not understand English were interpreted in a language they understood by an interpreter. Participants below 18 years were consented through their parents or guardians. The pretested structured questionnaire was used to generate the data from the participants. Data was entered and analyzed using SPSS Advanced Statistics 10.0 (Norus, 2000). Statistical analysis was performed using open source epidemiologic statistic programme for public health version 2.2.1 (OSESPPH, 2016) a p-value of  $\leq 0.05$  was taken as statistically significant.

## Results

### Demographic Characteristics of the Study Population

One hundred participants (patients) were interviewed which was a little 0.88 less than the calculated sample size of 113. Seventy four percent were female and 26 were male. Sixty three percent of the participants were unmarried and 37% were married, their age ranged between (16-63) years with mean age of 39.5. Most of the participants had primary education (40%) with the least having informal and tertiary education respectively. The details are as shown in Table 1.

### Knowledge of Participants about Condom use

Majority of the participants claimed they did not know how to use condom 67%. The details are as shown in Fig. 2.

### Knowledge about Condom use According to Education Levels

Knowledge about condom use was highest among tertiary participants 63.5% followed by secondary 60.6%,

while informal 6% and primary 10% recorded the least respectively ( $p < 0.05$ ). The details are as shown in Table 2.

### Attitudes of the Respondents towards Condom Use

Twenty of the respondents who knew how to use condom, had a positive attitude (60.6%) compared to 13 with negative attitude (39.4%) ( $p < 0.05$ ). Ten of the respondents with negative attitude (76.9%) felt a condom limits sexual satisfaction and 8 (61.5%) thought it has bad smell. The details are as shown in Table 3.

### Beliefs of the Respondents about Condom use

The highest majority of the participants (73%) believed that condom use prevents HIV/STI acquisition, followed by those who believed it can cause pain 61% and bleeding 55%. Nine percent of the respondents mythically believed that a condom can get stuck in the stomach during sexual intercourse. The details are as shown in Table 4.

Table 1. Demographic characteristics of the study population

Age -163	Numbers	Perages
Gender	No	%
• Male	26	26
• Female	74	74
Total	100	100
Marital status		
• Married	37	37
• Unmarried	63	63
Total	100	100
Age group		
• <20	16	16
• 21-30	46	46
• 31-40	17	17
• 41-50	15	15
• >50	6	6
Total	100	100
Education background		
• Informal	10	10
• Primary	40	40
• Secondary	39	39
Tertiary	11	11
Total	100	100

Table 2. Knowledge about condom use according to education background

Variable	Informal (n = 10)	Primary (n = 40)	OR	95% CI	P Value
Claim to know how to use condom (n=33)	Informal (n = 10)	Primary (40)	OR	95% CI	P-value
	2 (6)	4 (10)	2.20	0.25-14.8	0.215
	Informal (n = 10)	Secondary n = 39)	0.24	0.30-1.22	0.044
	2 (6)	20 (60.6)	0.16	0.-12-1.09	0.031
	Informal (n = 10)	Tertiary (n = 11)	0.11	0.03-0.35	0.001
	2 (6)	7 (63.6)	0.07	0.01-0.34	0.001
	Primary (n = 40)	Secondary n = 39)	0.61	0.14-2.45	0.248
	4 (10)	20 (60.6)			
Primary (n = 40)	Tertiary (n = 11)				
4 (10)	7 (63.6)				
Secondary (n = 39)	Tertiary (n = 11)				
20 (60.6)	7 (63.6)				

Table 3. Attitudes of the respondents towards condom use

Variable	Views	No	%	OR	95%	P-value
Attitudes						
(Only for those who claimed to know how to use condoms n = 33)	Have positive attitude towards condom	20	60.6	2.30	0.87-6.46	0.05
	Have negative attitude towards condom	13	39.4			
Only for those with negative attitude (n = 13)	Limits sexual satisfaction	10	76.9	2.03	0.36-13.18	0.219
	Have bad smell	8	61.5			

Table 4. Beliefs of the respondents about condom use

Variable	Views	Number of percentages		
		(Yes)	(No)	Uncommitted
Beliefs				
Only for those aware (n = 100)	Can get stuck in the stomach	9 (9)	89 (89)	2 (2)
	Can cause itching	30 (30)	70 (70)	0 (0)
	Can cause pain	61 (61)	39 (39)	0 (0)
	Can lead to bleeding	55 (55)	42 (42)	3 (3)
	Can peel off the skin	15 (15)	60 (60)	5 (5)
	Prevent pregnancy	55 (55)	42 (42)	3 (3)
	Prevents HIV/STI	73 (73)	21 (21)	5 (5)

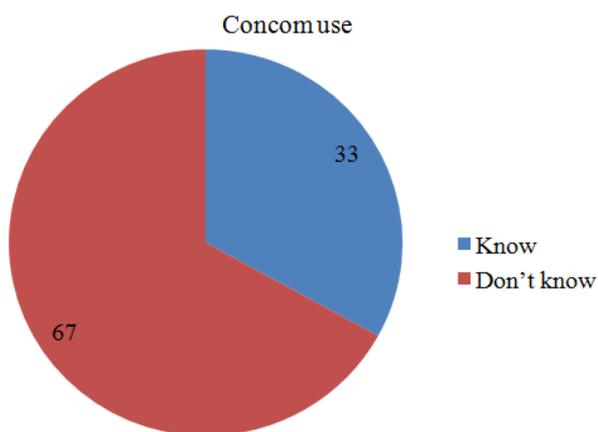


Fig. 2. Percentage of participants on knowledge about condom use

## Discussion

The study sought to determine the knowledge, attitude and beliefs of the communities about condom use in Mulago hospital. Although, as expected, all the participants were aware of a condom, the knowlegibility on the use of a condom was found to vary according to the levels of education. The knowledge about condom use was found to be directly proportional to the education background with persons with secondary and tertiary level of education having more knowledge on condom use compared to those with informal and primary education background respectively ( $p < 0.05$ ) (Table 2). These findings are in agreement with a study which found that secondary

school students were more knowledgeable about condom use than those with lower education background (Asimwe *et al.*, 1997). These findings are also in conformity with other studies which found that understanding of condom use increased with higher levels of education (Ndola *et al.*, 2005; Lagarde *et al.*, 2001). The level of education background has equally been found to be directly proportional to the awareness and knowledge about condom use (Akinrinola *et al.*, 2007). Similarly, our findings are also in complete agreement with a study which noted that respondents with low level of education background had low understanding about condom use (Pranitha and Cleland, 2005).

It is therefore possible that persons with low education background are at high risk of acquiring sexually transmitted infections. This hypothesis is supported by a study by Bohmer and Kirumira (1997) which found persons with low education background to be at higher risk of acquiring STI/HIV compared to those with high education background.

The attitude towards condom use was equally found to differ among the participants. While some of the participants were aware of a condom and had a positive attitude towards its use, a few had a negative attitude in that condoms were "not associated with sexual satisfaction and had bad smell". Others believed that a condom could possibly: "get stuck in the stomach, cause itching, cause pain, lead to bleeding and peel off the skin". This is in conformity with a study by Matovu and Ssebadduka (2013) which found that some of the male respondents had negative attitude towards using a condom because they had the

feeling that a condom “kills the mood of sex”. This finding is also in agreement with Neema *et al.* (2004) and Reddy *et al.* (1999) studies which found that men with negative attitude towards condom use perceived a condom to be associated with “decreased sexual pleasure, diminished intimacy, waste of sperm, making you appear as if you are masturbating or loss of virility and that “a condom would break during sex thus allowing HIV to pass through” respectively. In another related study, one of the women respondents believed that she “would be embarrassed and afraid if she demanded a partner to use condom during sex because the partner would think she has AIDS then he wouldn’t want to have sex with her” (Varga, 1997). Negative attitude towards condom use has also been documented in similar studies by (MacPhail and Campbell, 2001) respectively. Although this study did not look at the cost, availability and accessibility of the condom vis a vis attitude of the respondents towards condom use, it is possible that high cost and scarcity of the condoms could probably discourage the use of it. This hypothesis is in agreement with the study by Lucea *et al.* (2013), which noted that some of the barriers to condom use were the cost, availability of condoms and their accessibility.

There was also variability on the beliefs about condom use among the respondents. The majority of respondents believed that condom use could prevent “STI/HIV and pregnancy”. This was in uniformity with other studies which found that most of the respondents believed that condom use could prevent one from the acquisition of HIV (Nesidai *et al.*, 2011; Thoovakkunon *et al.*, 2012).

However, some of the studies were not in concurrence with our findings. At one of the rallies in Uganda, participants were told that ‘using a condom with an infected person is like using a parachute which only opens 75% of the time meaning the a condom has pores that can allow in HIV and its use should therefore be discouraged’ (Cohen, 2005). The same observation was noted by (Slattery, 2002).

## Conclusion and Recommendation

The majority of the patients with low education background did not know how to use a condom, although they were aware of it. The attitude and beliefs varied among the respondents about condom use. There is therefore a need to sensitize the communities about condom use and its associated benefits.

## Acknowledgement

The following people are acknowledged for their support in one way or the other: Associate Professor Ponsiano Ocama, Dr. Kyoheire, Mr. Ssesanga.

## Authors Contributions

**Henry Ojiambo:** Conceived the idea, collected the data, analyzed it and drafted the manuscript.

**Okwi Andrew Livex:** Analyzed data and revised the manuscript.

**Othieno Emmanuel:** Participated in the drafting of the manuscript. All authors gave attestation to final write up of the manuscript.

## Ethical Consideration

Permission to carry out the study was sought from the Review Committee of the then School of Veterinary Medicine now known as College of Veterinary Animal and Biosecurity (COVAB) and from Ethical and Research Committee of Mulago hospital. All the information generated from the participants was treated as highly confidential.

## Conflict of Interest

The study was conducted by us as an original work and has not been published anywhere else. No external funds were received for this study.

## References

- Akinrinola, B., H. Fatima, S.N. Ahmed, O. Christine and K. Sidon, 2007. Knowledge of correct condom use and consistency of use among adolescents in four countries in Sub-Saharan Africa. *Afr. J. Reprod. Health*, 11: 197-220.
- Anorlu, R.I., A.F. Fagbenro-Beyioku, T. Fagorala, O.O. Abudu and H.S. Galadanci, 2001. Prevalence of *Trichomonas vaginalis* in patients with vaginal discharge in Lagos, Nigeria. *Niger. Postgrad Med. J.*, 8: 183-6.
- Asiimwe, O.G., A.A. Opio, J. Musinguz, E. Madraa and G. Tembo *et al.*, 1997. Change in sexual behaviour and decline in HIV infection among young pregnant women in urban Uganda. *AIDS.*, 11: 1757-1763.
- Bohmer, L. and E. Kirumira, 1997. Report: Access to reproductive health services: Participatory research with Ugandan adolescents. Makerere University Child Health and Development Centre, Uganda.
- Cohen, J., 2005. AIDS in Uganda: The human rights dimension. *Lancet*, 365: 2075-2076.
- Images for map showing Mulago hospital. <https://www.google.com/#q=images+for+map+showing+mulago+hospital>
- Kirkwood, B.R., 1988. Calculation of Required Sample Size in Essentials and Medical Statistics. Blackwell-Science, LN London.

- Lagarde, E., M. Caraël, J.R. Glynn, L. Kanhonou and S.C. Abega *et al.*, 2001. Educational level is associated with condom use within non-spousal partnerships in four cities of sub. Saharan Africa AIDS, 15: 1399-1408.
- Lucea, M.B., M.J. Hindin, S. Gultiano, J. Kub and R. Linda, 2013. The context of condom use among young adults in the Philippines: Implications for HIV prevention. Health Care Women Int., 34: 227-248. DOI: 10.1080/07399332.2012.721414
- MacPhail, C.C. and C. Campbell, 2001. 'I think condoms are good but, AAI, I hate those things': Condom use among adolescents and young people in a Southern African township. Soc. Sci. Med., 52: 1613-1627.
- Matovu, J.K.B. and N.B. Ssebadduka, 2013. Knowledge, attitudes and barriers to condom use among female sex workers and truck drivers in Uganda: A mixed-methods study. Afr. Health Sci., 13: 1027-1033. DOI: 10.4314/ahs.v13i4.24
- Ndola, P., V. Farnaz and F. Ashley, 2005. International family planning. Perspectives, 31: 192-199.
- Ndyanabangi, B., M.N. Tumwesigye, A.H. Kilian and H. Morr, 1998. Sexual and reproductive health and trends of reported knowledge and behavior relating to sexual and reproductive health among secondary school students in Kabarole district Uganda (1994-1997). Gtz Aids Netw., 2: 13-13.
- Neema, S., M. Nakanyike and K. Richard, 2004. Adolescent sexual and reproductive health in Uganda: A Synthesis of research evidence. Guttmacher Institute Women's Rights Organization.
- Nesidai, K.B.A., Z. Ng'ang'a, M. Mwangi and P. Wanzala, 2011. Knowledge, Attitude and practice factors associated with condom use among undergraduate students of a public University in Kenya (A case of Jomo Kenyatta University of Agriculture and Technology. Afri. J. Health Sci., 19: 41-42.
- Norus, M.J., 2000. SPSS 10.0 guide for data analysis. Publisher Upper Saddle River. N.J. Prentice Hall.
- OSESPH, 2016. Open source epidemiologic statistics for public health version 2.2.1.
- Pranitha, M. and J. Cleland, 2005. Risk perception and condom use among married or cohabiting couples in KwaZulu-Natal. South Africa Int. Family Plann. Perspectives, 31: 24-29.
- Reddy, P., A. Meyer-Weitz, B. Van den Borne and K. Gerjo, 1999. STD-related knowledge, beliefs and attitudes of Xhosa-speaking patients attending STD primary health care clinics in South Africa. Int. J. STD AIDS, 10: 392-400.
- Slattery, H., 2002. HIV/AIDS: A call to action. Responding as Christians, Pauline Publications Africa, Nairobi, ISBN-10: 9966218203
- Shira, C.S., J.S. Frank and S. Lisa, 2009. Current issues and considerations regarding trichomoniasis and human immunodeficiency virus in African. Am. Clin. Microbiol. Rev., 22: 37-45. DOI: 10.1128/CMR.00002-08
- Thoovakkunon, M.C., B. Dirk, P. Chikobvu, C. Nöstlinger and R. Colebunders *et al.*, 2012. Predictors of condom use and refusal among the population of Free State province in South Africa. BMC Public Health, 12: 381.381. DOI: 10.1186/1471-2458-12-381
- Varga, C., 1997. Sexual decision making and negotiation in the midst of AIDS: Youth in KwaZulu-Natal, South Africa. Health Transit Rev., 7: 45-67.