



UNIVERSITI PUTRA MALAYSIA

***EFFECTIVENESS OF CLINICIAN CLIENT-CENTERED COUNSELING
ON KNOWLEDGE, ATTITUDES AND SEXUAL BEHAVIORS OF
ANTIRETROVIRAL THERAPY PATIENTS IN YOLA, NIGERIA***

MARTINS OLUTAYO FOLASHADE

FPSK(p) 2015 20



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By

MARTINS OLUTAYO FOLASHADE

**Thesis Submitted to the School of Graduate Studies, Universiti Putra
Malaysia, in Fulfillment of the Requirements for the Degree of Doctor of
Philosophy**

October 2015

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Abstract presented to the Senate Universiti Putra Malaysia in fulfillment of the requirement of the degree of Doctor of Philosophy

EFFECTIVENESS OF CLINICIAN CLIENT-CENTERED COUNSELING ON KNOWLEDGE, ATTITUDES AND SEXUAL BEHAVIORS OF ANTIRETROVIRAL THERAPY PATIENTS IN YOLA, NIGERIA

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October 2015

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Background: HIV/AIDS is a major challenge to public health in recent times. An estimated 34.0 million people are living with HIV/AIDS globally. Nearly one in twenty adults (4.9%) are living with HIV in Sub-Saharan Africa accounting for about 69% of the global burden. Prevalence in Nigeria is 4.1%. Adamawa state with Yola as capital has a prevalence of 3.8%. Despite better awareness and understanding of HIV in Nigeria, unhealthy sexual behaviors such as; continued unprotected sexual intercourse among HIV positive individuals with partners who are HIV negative or of unknown status, none or inconsistent condom use, multiple sexual partners and non-disclosure of status to spouses and/or sexual partners are noted. Thus behavioral change preventive interventions are still a driving force against HIV.

Objective: To develop, implement and evaluate the effectiveness of a clinician client centered counseling module on improving knowledge on HIV transmission and prevention, attitudes towards HIV/AIDS, reducing multiple sexual partners, improving condom use and increasing HIV status disclosure to spouse/sex partners of ART patients in Yola, Nigeria.

Methodology: This study was a three arm randomized single blind clinical trial involving 386 randomly selected and allocated adult HIV patients who were enrolled into Antiretroviral Therapy (ART) at all four comprehensive ART sites in Yola. A clinician client centered training module was developed based on the Information Behavior and Motivation (IBM) Model. Nine Clinicians were trained with this module to deliver a 10 to 15 minutes clinic based intervention (Clinician client centered counseling). The three groups were; intervention group one, intervention group two and the control group. Intervention group one received two counseling sessions; at baseline then at two months. Intervention group two received one counseling session at baseline only and the control group received routine care. An interviewer administered validated and reliable structured questionnaire was used for data collection. Data was collected at baseline, two months and six months. Outcome measures included; knowledge on HIV transmission and prevention, attitudes towards HIV/AIDS,

number of sexual partners, frequency of condom use and status disclosure rates. Data was analyzed using SPSS version 22. Test of significance was at a level 0.05.

Results: A significant statistical effect was seen for group ($F(2, 331) = 17.410, p = 0.0001$), time ($F(2) = 49.826, p = 0.0001$) and group and time interaction ($F(2, 331) = 4.239, p = 0.002$) for HIV knowledge. There was a significant main effect for groups ($F(2) = 11.107, p = 0.0001$) and time ($F(2) = 34.088, p = 0.0001$) for attitudes towards HIV/AIDS. A significant change in median condom use scores from baseline to six months was seen for intervention group one; Friedman's ANOVA ($\chi^2 = 12.410, p = 0.002$). There was a significant main effect for time ($F(2, 219) = 4.093, p = 0.020$) for HIV status disclosure to spouse and/or sexual partners. Reductions were seen in numbers of respondents who had sex with unsteady partners in all study groups.

Conclusion: Clinician client centered counseling is an effective behavioral intervention in improving knowledge, attitudes and sexual behaviors of ART patients.

Keywords: Adult HIV positive patients; knowledge; attitudes; sexual behaviors; status disclosure

Abstrak tesis yang dikemukakan kepada senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

KEBERKESANAN KAUNSELING BERPUSATKAN KLIEN KLINISIAN TERHADAP PENGETAHUAN, SIKAP, DAN TINGKAH LAKU SEKSUAL KE ATAS PESAKIT TERAPI ANTIRETROVIRAL DI YOLA, NIGERIA

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Latar belakang: HIV/AIDS merupakan cabaran utama bagi kesihatan awam kini. Di dunia ini, dianggarkan 34.0 juta orang hidup dijangkiti dengan HIV/AIDS. Hampir 1 bagi 20 orang dewasa (4.9 %) hidup dengan HIV di Afrika SubSahara, iaitu lebih kurang 69% daripada bebanan global. Prevalens di Nigeria ialah 4.1%. Negeri Adamawa dengan Yola sebagai ibu negeri mempunyai prevalens sebanyak 3.8%. Walaupun kesedaran dan pemahaman yang lebih baik tentang HIV di Nigeria, tingkah laku seksual yang tidak sihat, seperti hubungan kelamin berterusan yang tidak dilindungi dalam kalangan individu positif HIV dengan pasangan negatif HIV atau yang statusnya tidak dapat dikenal pasti, tidak menggunakan kondom atau penggunaan kondom yang tidak konsisten, pasangan seksual yang berbilang dan status yang tidak didedahkan kepada pasangan hidup dan/atau pasangan seksual telah dicatat. Oleh sebab itu, intervensi pencegahan tingkah laku masih merupakan daya penggerak terhadap HIV.

Objektif: membangunkan, mengimplementasikan, dan menilai keberkesanan modul kaunseling berpusatkan klien klinisian bagi meningkatkan pengetahuan terhadap transmisi dan pencegahan HIV, sikap terhadap HIV/AIDS, mengurangkan pasangan seksual yang berbilang, memperbaiki penggunaan kondom dan meningkatkan status HIV yang tidak didedahkan oleh pasangan hidup /pasangan seks dalam kalangan pesakit ART di Yola, Nigeria.

Metodologi: Kajian ini menggunakan percubaan klinikal rabun satu pihak rawak 3 kumpulan, melibatkan 386 pesakit dewasa yang dipilih secara rawak dan diuntukkan yang mendaftar untuk Terapi Antiretroviral (ART) di semua 4 lokasi ART komprehensif di Yola. Modul latihan berpusatkan klien klinisian telah dibangunkan berdasarkan Model Tingkah Laku Maklumat dan Motivasi (IBM). Sembilan Klinisian telah dilatih menggunakan modul ini bagi menyampaikannya antara 10 hingga 15 minit klinik berdasarkan intervensi (Kaunseling berpusatkan klien klinisian). Ketiga-tiga kumpulan tersebut ialah; intervensi kumpulan 1, intervensi kumpulan 2 dan kumpulan kawalan. Intervensi kumpulan 1 menerima 2 sesi kaunseling; pada pangkal/ permulaan,

kemudian pada dua bulan. Intervensi kumpulan 2 menerima 1 sesi kaunseling; iaitu hanya pada pangkal/ permulaan , manakala kumpulan kawalan menerima penjagaan rutin. Seorang penemu duga yang melaksanakan soal selidik berstruktur yang disahkan dan yang boleh dipercayai telah diambil untuk pengumpulan data. Data telah dikumpul pada peringkat pangkal/permulaan, 2 bulan dan 6 bulan. Dapatan mengukur, antara lain termasuk; pengetahuan tentang transmisi dan pencegahan HIV, sikap terhadap HIV/AIDS, bilangan pasangan seksual, kekerapan penggunaan kondom dan status kadar HIV yang tidak didedahkan. Data telah dianalisis menggunakan SPSS versi 22. Ujian signifikan adalah pada tahap α 0.05.

Hasil kajian: Kesan statistik yang signifikan telah diperoleh bagi kumpulan, masa dan kumpulan dan masa interaksi; masing-masing bagi pengetahuan tentang HIV ialah $F(2, 331) = 17.410, p = 0.0001$, $F(2) = 49.826, p = 0.0001$, $F(2, 331) = 4.239, p = 0.002$. Terdapat kesan utama yang signifikan bagi kumpulan; $F(2) = 11.107, p = 0.0001$ dan masa; $F(2) = 34.088, p = 0.0001$ bagi sikap terhadap HIV/AIDS. Perubahan yang signifikan pada median skor penggunaan kondom daripada masa pangkal/permulaan hingga 6 bulan telah diperoleh bagi kumpulan intervensi kumpulan 1; ANOVA Friedman (χ^2) = 12.410, $p = 0.002$. Di samping itu, terdapat kesan utama yang signifikan bagi masa; $F(2, 219) = 4.093, p = 0.020$ bagi status HIV yang tidak didedahkan kepada pasangan dan/atau pasangan seksual. Penurunan juga terlihat dari segi bilangan responden yang mengadakan seks dengan pasangan yang tidak tetap dalam semua kumpulan kajian.

Kesimpulan: Kaunseling berpusatkan klien klinis merupakan intervensi tingkah laku yang efektif dalam memperbaiki pengetahuan, sikap dan tingkah laku seksual dalam kalangan pesakit ART.

Kata kunci: pesakit HIV dewasa; Sikap; Tingkah laku seksual; Status tanpa pendedahan

ACKNOWLEDGEMENTS

I thank the Almighty God for giving me the opportunity to carry out this work. I give thanks to my mother Dr (Mrs) O. O. Martins, my brother Seye and sisters; Yeside, Lola and Moji for their constant encouragement and support.

This work was facilitated by the untiring efforts of my major supervisor Prof. Lekhraj Rampal whose constructive criticism and guidance made this work what it is. I feel highly indebted to other members of my supervisory committee; Prof. Dr. Norlijah Othman, Prof. Dato'Dr Munn-Sann Lye, Prof. Sherina Mohd Sidik and Prof. Zubairu Iliyasu. Special thanks to the Medical Director of the Federal Medical Center (FMC) Yola; Dr Ali Danduram and the Deputy Head of Clinical services of F. M. C. Yola; Dr Abdulfatai Salawu who made it possible for me to undergo this program. I give special thanks to my colleagues who directly assisted in this research; Dr Edwin Habila, Dr Maurice Solomon, Dr Abdulraham Mohammed, Dr Barnabas Dongonyaro, Dr Mamza Jabani, Dr Temilade Adenle, Dr Jeff, Dr Cyril, Dr Benjamin and Dr Timothy Williams Tizhe. I also owe special gratitude Glory Haniel of the Antiretroviral Therapy Unit of F.M. C. Yola who served in so many ways during the period of my data collection.

I am very grateful to Muhammad Sani Umar both a friend and brother who gave me the utmost support from the beginning to the end of this program, also thankful to Foo Chai Nien, Itse Jacdonmi, Chizoba Ume-Ezeoke, Blessing Adamu Dalyop, Glines Langnji, Adaora Ummuna, Kingsley Ngong, Hippoclatas Ngong, Hadiza Kallamu, Usman Ismaila and Osinachi Jane Nseibunam.

Special thanks to Alhaji Salihu Yunusa Belel, a supporter of youth and self-development who gave me encouragement to go in for this program. He was of great support and encouragement throughout the period.

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TABLE OF CONTENTS

	Page
ABSTRACT	i
ABSTRAK	iii
ACKNOWLEDGEMENTS	v
APPROVAL	vi
DECLARATION	viii
LIST OF TABLES	xiv
LIST OF FIGURES	xix
LIST OF ABBREVIATIONS	xxi
CHAPTER	
1 INTRODUCTION	1
1.1 Statement of the problem	3
1.2 Significance of the study	4
1.3 Research question	4
1.4 General Objective	4
1.5 Specific Objectives	4
1.6 Hypotheses	5
2 LITERATURE REVIEW	6
2.1 Literature Strategic Search	6
2.2 Human Immunodeficiency Virus	6
2.3 Signs and symptoms of HIV	6
2.4 HIV/AIDS transmission	7
2.5 Prevention of HIV/AIDS	8
2.6 Definition of terms related to sexual behavior	8
2.7 The global situation of HIV/AIDS	8
2.8 HIV/AIDS in Nigeria	9
2.8.1 Prevalence of HIV/AIDS in Nigeria	9
2.8.2 Knowledge attitudes and beliefs	11
2.8.3 Dynamics of HIV transmission in Nigeria	13
2.8.4 Sexual behaviors of HIV positive people in Nigeria	13
2.8.5 HIV status disclosure among PLHAs in Nigeria	14
2.9 Information Motivation and Behavior (IMB) Model	15
2.10 HIV prevention strategies	16
2.10.1 Counseling as a prevention strategy	16
2.10.2 Counseling for sexual behavior modification	18
2.10.3 Counseling and HIV status disclosure	22
3 METHODOLOGY	25
3.1 Study Location	25
3.2 Study Design	26
3.3 Study Duration	26
3.4 Study Population	27
3.5 Sample size estimation	27
3.5.1 Inclusion criteria	27

3.5.2	Exclusion criteria	27
3.6	Sampling technique	27
3.6.1	Sampling frame	27
3.6.2	Randomization and blinding	28
3.7	Development of Clinician Client Centered Counseling Module	29
3.8	Data collection	32
3.8.1	Instrument	32
3.9	Quality control	33
3.9.1	Validation of the instrument	33
3.9.2	Validation of the Clinician Client Centered Counseling Module	35
3.9.3	Clinician training	36
3.10	Intervention	37
3.11	Independent and Dependent variable	37
3.12	Implementation of Clinician Client Centered Counseling Module	38
3.13	Definition of terms	39
3.14	Operational definition of variables	39
3.15	Ethical Consideration	40
3.16	Data analysis	40
4	RESULTS	43
4.1	Response rate	43
4.2	Socio-demographic characteristics of the respondents	43
4.2.1	Baseline comparisons on socio-demographic characteristics among intervention one, intervention group two and the control group	44
4.2.2	Baseline knowledge, attitude, condom use, multiple sexual partners and HIV status disclosure of respondents	47
4.3	Baseline knowledge and attitude of respondents	47
4.3.1	Baseline comparison of HIV knowledge and attitudes among intervention group one, intervention group two and the control group	48
4.3.2	Baseline comparison among groups for condom use, multiple sexual partners and HIV status disclosure	49
4.4	Correlation between baseline knowledge, attitude, sex with unsteady partner, frequency of unprotected coitus and HIV status disclosure	50
4.5	Effectiveness of the intervention on HIV knowledge on transmission and prevention	57
4.5.1	Change in sound HIV knowledge following intervention	58
4.5.2	Change in sound HIV knowledge from baseline to two months	58
4.5.3	Change in sound HIV knowledge from baseline to six months	58
4.5.4	Change in sound HIV knowledge from two months to six months	58

4.5.5	Group main effects on log HIV knowledge scores	60
4.5.6	Effects of group, time, age and gender and their interactions on log HIV knowledge scores	63
4.6	Evaluation of the effectiveness of the intervention on attitude towards HIV/AIDS	67
4.6.1	Change in positive attitude following the intervention from baseline to two months	67
4.6.2	Change in positive attitude following the intervention from baseline to six months	67
4.6.3	Change in positive attitude following the intervention from two months to six months	68
4.6.4	Group main effects on log attitude scores towards HIV/AIDS	70
4.6.5	Effects of group, time, age and gender and their interactions on log attitude towards HIV/AIDS scores	72
4.7	Effectiveness of the intervention on sexual behaviors; condom use	76
4.7.1	Change in consistency of condom use following the intervention from baseline to two months	77
4.7.2	Change in consistency of condom use following the intervention from baseline to six months	77
4.7.3	Change in consistency of condom use following the intervention from two months to six months	77
4.7.4	Group main effects for condom use scores	81
4.7.5	Main effects of group, time and group and time interaction on condom use scores	83
4.8	Effectiveness of the intervention on sexual behaviors; multiple sexual partners	85
4.8.1	Change in sexual behaviors including multiple sexual partners following the intervention from baseline to two months	86
4.8.2	Change in sexual behaviors including multiple sexual partners following the intervention from baseline to six months	86
4.8.3	Change in sexual behaviors including multiple sexual partners following the intervention from two months to six months	87
4.9	Effectiveness of the intervention HIV status disclosure	91
4.9.1	Change in HIV status disclosure following the intervention from baseline to two months	91
4.9.2	Change in HIV status disclosure following the intervention from baseline to six months	91
4.9.3	Change in HIV status disclosure following the intervention from two months to six months	91
4.9.4	Group main effects on log HIV status disclosure scores	93
4.9.5	Main effects of group, time, age and gender and their interactions on log HIV status disclosure scores	96

5	DISCUSSION	100
5.1	Response rate	100
5.2	Socio-demographic characteristics of PLWHAs	100
5.3	Knowledge of HIV transmission and prevention among PLWHAs	102
5.4	Attitudes towards HIV/AIDS among PLWHAs	104
5.5	Sexual behaviors; condom use and multiple sexual partners among PLWHAs	104
	5.5.1 Condom use among PLWHAs	105
	5.5.2 Multiple sexual partners among PLWHAs	106
5.6	HIV status disclosure to spouses and/sex partners among PLWHAs	107
5.7	Effectiveness of CCC Counseling on HIV knowledge	109
5.8	Effectiveness of CCC Counseling on attitudes towards HIV/AIDS among PLWHAs	111
5.9	Effectiveness of the intervention on improving condom use during sexual intercourse	113
5.10	Effectiveness of CCC Counseling on reducing multiple sexual partners	113
5.11	Effectiveness of the intervention on HIV status disclosure to spouses and/sex partner	115
6	SUMMARY, IMPLICATIONS, RECOMMENDATIONS AND CONCLUSION	117
6.1	Summary	117
6.2	Strengths	117
6.3	Limitations	118
6.4	Implications and recommendations	118
6.5	Conclusion	119
	REFERENCES	120
	APPENDICES	130
	BIODATA OF STUDENT	175
	PUBLICATION	176

LIST OF TABLES

Table	Page
3.1: Sessions of the CCC counseling module which address the concepts of the IMB Model	31
3.2: Reliability test for sections two and three	34
4.1: Socio-demographic characteristics of respondents; age, sex, ethnicity and residence	45
4.2: Socio-demographic characteristics of respondents; occupation, marital status and level of education	46
4.3: Monthly incomes in Naira (by minimum wage) and state of origin	47
4.4: Duration of known HIV status	47
4.5: Baseline comparison of sound knowledge and attitude between intervention group one, intervention group two and control group	48
4.6: Baseline comparison on mean scores of log knowledge and log attitude among intervention group one, intervention group two and control group	48
4.7: Baseline comparison of sexual behaviors including sex with an unsteady partner among intervention group one, intervention group two and control group	49
4.8: Baseline comparison of safer sex and condom discussion, with condom use among intervention group one intervention group two and control group	50
4.9: Baseline comparison of type of union and HIV disclosure status among intervention group one, intervention group two and control group	50
4.10: Correlation matrix between knowledge on HIV transmission and prevention, attitude towards HIV/AIDS, sex with unsteady partner, frequency of unprotected coitus and HIV status disclosure	52
4.11: Change in sound knowledge follow intervention in intervention group one	59
4.12: Change in sound knowledge following intervention in intervention group two	59

4.13:	Change in sound knowledge following intervention in control group	60
4.14:	Group main effects on log HIV knowledge scores at baseline, two months and six months	61
4.15:	Multiple pair wise comparison of group main effect of log HIV knowledge scores at two months	62
4.16:	Multiple pair wise comparison of group main effect of log HIV knowledge scores at six months	62
4.17:	Summary table of mixed design ANOVA for log of HIV knowledge scores (between subject effects)	63
4.18:	Summary table of mixed design ANOVA for log of HIV knowledge scores (within subject effects)	64
4.19:	Paired time comparison of mean of log HIV knowledge scores for intervention group one at baseline two months and six months	65
4.20:	Paired time comparison of mean of log HIV knowledge scores for intervention group two at baseline two months and six months	66
4.21:	Paired time comparison of mean of log HIV knowledge scores for control group at baseline two months and six months	66
4.22:	Group multiple pair wise comparison of log HIV knowledge scores	67
4.23:	Change in attitude towards HIV/AIDS following intervention for intervention group one	68
4.24:	Change in attitude towards HIV/AIDS following intervention for intervention group two	69
4.25:	Change in attitude towards HIV/AIDS following intervention for control group	70
4.26:	Group main effects on log attitude scores towards HIV/AIDS at baseline, two months and six months	71
4.27:	Multiple pair wise comparison of group main effect on log attitude scores towards HIV/AIDS at six months	72
4.28:	Summary table of mixed design ANOVA for log attitude scores to HIV/AIDS (between subject effects)	73

4.29:	Summary table of mixed design ANOVA for log attitude scores to HIV/AIDS (within subject effects)	73
4.30:	Paired time comparison of means of log attitude towards HIV/AIDS scores for intervention group one at baseline two months and six months	75
4.31:	Paired time comparison of means of log attitude towards HIV/AIDS scores for intervention group two at baseline two months and six months	75
4.32:	Paired time comparison of means of log attitude towards HIV/AIDS scores for the control group at baseline two months and six months	76
4.33	Group multiple pair wise comparison of log of attitude scores to HIV/AIDS	76
4.34:	Change in sexual behaviors; discuss safe sex, discuss condoms and condom use following intervention in the intervention group one	78
4.35:	Change in sexual behaviors; discuss safe sex, discuss condoms and condom use following intervention in the intervention group two	79
4.36:	Change in sexual behaviors; discuss safe sex, discuss condoms and condom use following intervention in the Control group	80
4.37:	Group main effect on condom use at baseline, two months and six months	81
4.38:	Multiple pair wise comparison of group main effect of the median condom use score at baseline	81
4.39:	Multiple pair wise comparison of group main effect of the median condom use score at two months	82
4.40:	Multiple pair wise comparison of group main effect of median condom use scores at six months	83
4.41:	Summary table of Friedman's repeated measures ANOVA for median condom use scores	83
4.42:	Paired time comparison of median condom use scores for intervention group one	84
4.43:	Paired time comparison of median condom use scores for intervention group two	85

4.44:	Paired time comparison of median condom use scores for the control group	85
4.45:	Change in sexual behaviors; sexual relationships, sex activity in last 30 days and sex with unsteady partner following the intervention in intervention group one	88
4.46:	Change in sexual behaviors following the intervention sexual relationships, sexual activity in last 30 days and sex with unsteady partner following intervention in intervention group two	89
4.47:	Change in sexual behaviors; sexual relationship, sexual activity in last 30 days and sex with unsteady partner following intervention in the control group	90
4.48:	Change in HIV status disclosure following intervention in intervention group one	92
4.49:	Change in HIV status disclosure following intervention in intervention group two	92
4.50:	Change in HIV status disclosure following intervention in control group	93
4.51:	Group main effect on means of log HIV status disclosure scores at baseline, two months and six months	94
4.52:	Multiple pair wise comparison of group main effect on means of log of HIV status disclosure scores at two months	95
4.53:	Multiple pair wise comparison of group main effect on means of log of HIV status disclosure scores at six months	95
4.54:	Summary table of mixed design ANOVA for mean log HIV status disclosure scores (between subject effects)	96
4.55:	Summary table of mixed design ANOVA for mean log HIV status disclosure scores (within subject effects)	97
4.56:	Paired time comparison of mean of log HIV status disclosure scores for intervention group one at baseline two months and six months	98
4.57:	Paired time comparison of mean of log HIV status disclosure scores for intervention group two at baseline two months and six months	98
4.58:	Paired time comparison of mean of log HIV status disclosure scores for control group at baseline, two months and six months	99

4.59: Group multiple pair wise comparison of log HIV status disclosure scores 99



LIST OF FIGURES

Figure		Page
2.1:	HIV prevalence by zones in Nigeria	10
2.2:	HIV prevalence by states in Nigeria	11
2.3:	Conceptual framework of the effectiveness of clinician client centered counseling on knowledge , attitudes, condom use, multiple sexual partners and HIV status disclosure among HIV positive clients in Yola, Nigeria	24
3.1:	Map of Nigeria with Adamawa state highlighted	26
3.2	Schematic diagram of the development of the Clinician Client Centered counseling module	30
3.3:	Schematic diagram of the development and validation of the questionnaire	35
3.4:	Flow diagram of participants in a randomized clinical trial conducted among HIV positive patient in all four comprehensive ART sites in Yola Nigeria).	42
4.1:	Scatter plot diagram and a fit line between baseline HIV knowledge scores and baseline attitude scores toward HIV/AIDS	53
4.2:	Scatter plot diagram and fit line between HIV knowledge scores and baseline sex with unsteady partner scores	54
4.3:	Scatter plot diagram and fit line between baseline HIV knowledge scores and baseline HIV status disclosure to sex partner or spouse	55
4.4:	Scatter plot diagram and fit line between baseline HIV knowledge scores and baseline frequency of unprotected coitus	56
4.5:	Scatter plot diagram and fit line between baseline sex with an unsteady partner scores and baseline frequency of protected coitus	57
4.6:	Interaction plot between group and time for means of log HIV knowledge scores	64
4.7:	Interaction plot between group and time of mean log attitude scores towards HIV/AIDS	74

- 4.8: The interaction plot between group and time for median condom use scores 84
- 4.9: Interaction plot between group and time for the means of log HIV status disclosure scores 97



LIST OF ABBREVIATIONS

<	Greater than
>	Less than
≤	Less than or equals to
≥	Greater than or equals to
AIDS	Acquired Immune Deficiency Syndrome
AIDSCAP	AIDS Control and Prevention Project
ACA	American Counseling Association
ART	Antiretroviral Therapy
ANOVA	Analysis of variance
BSS	Behavioral surveillance surveys
CAP	Control and Prevention
CDC	Center for Disease Control
CCC	Clinician Client Centered
CI	Confidence Interval
CT	Counseling and Testing
DALY	Disability Adjusted Life Years
FMOH	Federal Ministry of Health
FMC	Federal Medical Center
HIV	Human Immunodeficiency Virus
HRSA	Health Resources and Services Administration
IMB	Information Motivation and Behavior
IBBSS	Integrated Biological and Behavioral Surveillance Survey
IQR	Inter Quartile Range
LGA	Local Government Area
NACA	National Action Committee on AIDS
NPC	National Population Commission
NARHS	National Reproductive and Health Survey
NHSS	National HIV Sero-prevalence Survey
PITC	Provider Initiated HIV Testing and Counseling
PLWHA	Person/People Living with HIV/AIDS
RESPECT	Reasoned Action and Social Cognitive Theory
STD	Sexually Transmitted Diseases

SSHY	State Specialist Hospital Yola
SD	Standard Deviation
SE	Standard Error
UNAIDS	Joint United program on HIV/AIDS
USA	United States of America
VCT	Voluntary Counseling and Testing
WHO	World Health Organization



CHAPTER 1

INTRODUCTION

HIV/AIDS is recognized as a major challenge to public health in recent times. An estimated 34.0 million people are known to be living with HIV/AIDS globally. This epidemic varies considerably between countries and regions with Sub – Saharan Africa remaining the most severely affected. Nearly one in 20 adults are living with HIV in Sub-Saharan Africa accounting for about 69% of the global burden. Regions following closely include the Caribbean, Eastern Europe and Central Asia (UNAIDS 2012).

The first case of AIDS in Nigeria was reported in 1986 and this established the presence of an epidemic in the country. From 1991 to 2001 Nigeria witnessed an increase in the prevalence of HIV in the country. The first HIV sentinel survey reported a prevalence of 1.8%. Subsequent sentinel surveys reported prevalence of 3.8% (1993), 4.5% (1996), 5.4% (1999), 5.8% (2001), 5.0% (2003), 4.4% (2005), 4.6% (2008) and 4.1% (2010) (UNAIDS 2014). A more comprehensive study conducted in 2012 showed a decline in the prevalence to 3.4% (NARHS plus II 2012). This prevalence accounts for about 3.2 Million Nigerians out of which 2.8 Million are aged 15 years and above (NARHS plus II 2012).

Adamawa state with Yola as capital is located in the northeastern region of Nigeria and has a prevalence of 1.9%. This is comparatively lower than the neighboring states Taraba and Borno which have a prevalence of 10.5% and 2.4% respectively (NARHS plus II 2012). Adamawa state has a total of twenty one (21) local government areas of which Yola is the capital and the most urban with an estimated population of over 250,000 (NPC 2006). The state has a single tertiary health institution which is the Federal Medical Center (FMC) Yola (located in Yola). FMC Yola was the first comprehensive antiretroviral therapy site in the state; which along with three other secondary health facilities gives a total of four comprehensive ART sites in the state capital. This number of comprehensive sites has resulted in large numbers of people living with HIV/AIDS (PLWHAs) in the state seeking care and treatment in Yola as other local government areas that have facilities for ART have a single comprehensive site each.

In the past, strategies for HIV prevention focused on HIV negative individuals or those of unknown serostatus (Auerbach 2004). Today program planners have recognized that continued reliance on general HIV prevention messages may limit the effectiveness and sophistication of preventive messages (Global HIV Prevention Working Group 2004). Thus it may be more efficient to change behavior among fewer HIV positive individuals than the many HIV negative ones (Auerbach 2004). HIV preventive strategies that target HIV positive individuals are known as positive prevention strategies (Bunnell, Mermin & DeCock 2006).

PLWHAs are often engaged in sexual behaviors that put them and their partners at risk of HIV and other sexually transmitted diseases. The prevention and control of HIV infection depends on the success of strategies aimed at preventing new infection and treating currently infected individuals. HIV counseling is very important in prevention and treatment for the control of the HIV epidemic. Within HIV counseling programs, emphasis is placed on the importance of HIV status disclosure to spouses and sex partners among HIV infected clients. Recognizing the fact that disclosure in itself reduces stigma and improves access to care and support, makes it an important public health goal for several reasons; health, economic, social or otherwise. However barriers to disclosure have also been a challenge to effective intervention. Such barriers include fear of abandonment, rejection and accusation of infidelity (Kassaye, Lingerh & Dejene 2005).

Counseling assumes a helping relationship in which a client, having identified a problem or concern, seeks the help of a mental health professional. Voluntary Counseling and Testing (VCT) differs fundamentally from other forms of counseling in two major respects. Firstly most counselors are not mental health professionals but mostly nurses, medical assistants, volunteers and PLWHAs with short duration of formal training in HIV prevention counseling. Secondly the "counseling" relationship in VCT is not requested by the client. It is imposed unilaterally by guidelines regulating the provision of HIV testing in which counseling is a condition for receiving the test which must also be followed by a post- test counseling session irrespective of test results. Thus clients who are primarily seeking the test result and not a counseling session, find it unpleasant but see it as a requirement for getting tested (Sheon, 2006).

The Centre for Disease Control (CDC) guidelines instruct counselors to employ a personalized, "client-centered" approach, "negotiate a risk reduction plan" with each test client and also offer practical suggestions on how to engage clients in a more interactive discussion. It has a primary technique of actively listening and reflecting on the client's statements which must be in a nondirective and non-judgmental manner and so provides a safe environment for the client's self-exploration (CDC 2001).

Though physicians involved in HIV treatment and care also receive training in counseling, often times they have little or no involvement in the counseling processes, but limit their service to consultation and informal discussions which though health educative cannot be considered to be adequate counseling sessions. Insufficient involvement of physicians in HIV prevention counselling with them having the counselling process more frequently among newly diagnosed HIV patient than those already on routine care (established patients) has been reported (Metsch et al 2004).

Limited human resources further reduces the number of one on one client centered counseling sessions with most clients receiving more of group counseling sessions, this further reduces the effectiveness of this intervention. There is thus need for the development of intervention strategies by which clinicians can overcome barriers such as heavy work load and time limitations that hinder them from providing counselling to HIV positive patients.

1.1 Statement of the problem

Though there has been an increase in awareness and understanding of HIV in Nigeria, high rates of continued unprotected sexual intercourse among HIV positive individuals with partners who are HIV negative or of unknown status are still noted. These behaviors have potentially grave consequences and also have been associated with non-disclosure of status. Consequences include the sexual spread of HIV to their partners and or spouses.

HIV counseling still remains a very important prevention tool in the control of the HIV epidemic as it is directly linked to behavioral change. These behaviors include; multiple sexual partners, none or inconsistent condom use and non-disclosure of status to spouses and/or sex partners.

Cases of AIDS are very visible in Nigeria. One out of every four persons in the country has seen someone with HIV or has known someone who died of AIDS. Though awareness of HIV is high (93.8%), correct knowledge on all routes of possible transmission and methods of prevention are unsatisfactory (54% and 52.5% respectively) (NARHS 2007).

Prevention of spread of HIV/AIDS can only be possible with sound knowledge on the various modes of transmission and spread of the disease especially among those living with the disease. Several studies have assessed the level of HIV knowledge among individual who are HIV negative or of unknown status, (Asekun-Olarinmoye & Oladele 2009, Fawole, Ogunkan & Adegoke 2011, Osonwa et al 2013), however there is paucity of research that has assessed the level of sound knowledge of HIV transmission and prevention among people living with HIV/AIDS (PLWHAs) in Nigeria.

Studies in Nigeria have shown prevalence of condom use among PLWHAs to be as low as 23.4% (Udiminue & Adindu 2012). Sero-status disclosure rates of 50.9% to a main sexual partner and 44.6% of HIV positive respondents not knowing the HIV status of their sexual partners was reported in a study conducted among PLWHAs in Ogun state, South West Nigeria (Amaran 2013). Another study carried out among PLWHAs showed a multiple sexual partnership prevalence of 56.0% with more than half of this group noted to not use condoms (Adekunle 2012).

These unsatisfactory levels of HIV knowledge and associated low condom use, high prevalence of multiple partnership and low levels of HIV status disclosure indicate that behavioral change still remains a driving force against HIV in Nigeria and thus there is an urgent need for behavioral change prevention interventions. Furthermore, recent research has given little attention to the counseling process to determine if it is effective.

This study intends to determine the effectiveness of newly developed clinician – client centered counseling module; on improving knowledge on HIV transmission and prevention, attitudes towards HIV/AIDS, condom use, reducing number of sexual partners and increasing HIV status disclosure to partners/spouses among HIV positive client receiving ART in Yola.

1.2 Significance of the study

Results from this study if positive, would improve preventive interventions in the transmission HIV/AIDS. This would be by increasing knowledge of HIV transmission and prevention, improving attitudes towards HIV/AIDS along with changing sexual behaviors and increasing sero-status disclosure to sex partners of PLWHAs. It would also enlighten clinicians on the need for their involvement in the counseling process and also improve on their counseling skills and techniques.

If this module is effective, it can be used by clinicians for the prevention of HIV among PLWHAs. It will also contribute to knowledge of HIV preventive strategies.

1.3 Research questions

Research questions to be addressed in this study include the following:

1. Is a clinician client centered counseling module based on the Information Motivation and Behavior (IMB) Model effective in increasing knowledge on HIV transmission and prevention and attitudes towards HIV/AIDS among HIV positive clients in Yola, Nigeria?
2. Is a clinician client centered counseling module based on the IMB Model effective at reducing multiple sexual partners among HIV positive clients in Yola, Nigeria?
3. Is a clinician client centered counseling module based on the IMB Model effective at increasing condom use among HIV positive clients in Yola, Nigeria?
4. Is a clinician client centered counseling module based on the IMB Model effective at increasing HIV status disclosure to sexual partners/spouses of HIV positive clients in Yola, Nigeria?

1.4 General objective

To develop, implement and evaluate the effectiveness of a clinician client centered counseling module on improving knowledge on HIV transmission and prevention, attitudes towards HIV/AIDS, reducing multiple sexual partners, increasing condom use and increasing HIV status disclosure to sexual partners/spouses of HIV patients in Yola, Nigeria.

1.5 Specific objectives

1. To describe the socio-demographic characteristics of HIV positive clients enrolled in ART in Yola Nigeria.

2. To describe the baseline knowledge on HIV transmission and prevention, attitude towards HIV/AIDS, condom use, multiple sexual partners and HIV status disclosure rate of clients enrolled in ART in Yola, Nigeria.
3. To develop and implement a clinician client based counseling module in Yola, Nigeria.
4. To evaluate the effectiveness of a clinician client centered counseling module on improving knowledge on HIV transmission and prevention and attitudes towards HIV/AIDS of HIV positive clients in Yola, Nigeria.
5. To evaluate the effectiveness of a clinician client centered counseling module in increasing condom use among HIV positive clients in Yola, Nigeria.
6. To evaluate the effectiveness of a clinician client centered counseling module in reducing multiple sexual partners among HIV positive clients in Yola, Nigeria.
7. To evaluate the effectiveness of a clinician client centered module in increasing HIV status disclosure to sexual partners and/spouses.

1.6 Hypotheses

H₁: Clinician client centered counseling is effective in improving knowledge on HIV transmission and prevention and attitudes towards HIV/AIDS of HIV positive clients.

H₂: Clinician client centered counseling is effective in increasing condom use of HIV positive clients.

H₃: Clinician client centered counseling is effective in reducing multiple sexual partners of HIV positive clients.

H₄: Clinician client centered counseling is effective in increasing HIV status disclosure to spouses/sexual partners of HIV positive clients.

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