



UNIVERSITI PUTRA MALAYSIA

**EFFECTIVENESS OF A RANDOMIZED CONTROLLED HIV-RISK -
REDUCTION PROGRAM FIELD TRIAL WITH STUDENTS AT AHMADU
BELLO UNIVERSITY, ZARIA, NIGERIA**

SAAD ABDULMUMIN

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By

SAAD ABDULMUMIN

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Degree of Doctor of Philosophy**

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

EFFECTIVENESS OF A RANDOMIZED CONTROLLED HIV-RISK-REDUCTION PROGRAM FIELD TRIAL WITH STUDENTS AT AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA

By

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December 2010

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Human immunodeficiency virus/Acquired immune deficiency syndrome (HIV-AIDS) has become the most important infectious disease pandemic of this millennium. Nigeria with over 2.9 million people living with HIV (PLHIV) is at risk of increased burden and transmission of HIV. The country has the second largest burden of HIV infection in the world with young people at the center of the epidemic. The present study aims to evaluate the effectiveness of a peer-led HIV-STI intervention program framed on the Information-Motivation-Behavioral skills model among undergraduate students at Ahmadu Bello University, Zaria in northern Nigeria. We utilized a randomized controlled field trial design to investigate the impact of an HIV-STI intervention program on participants' HIV- and STI-related knowledge, sexual risk behaviors, attitudes towards HIV and STI prevention, and disentanglement of stigma. Participants were randomized to either the intervention group or the control group. An 8-hour integrated HIV-STI prevention program comprising of four structured modules was

developed and delivered to the intervention group, while the control group received another 8-hour program on career development. Both programs were delivered by trained peers. Two-way repeated measure ANOVA was applied to assess the effectiveness of the intervention. The outcome measures were assessed at baseline, immediately post-intervention, at 3 months and 6 months post-intervention.

Respondents in the intervention arm showed significant improvements in HIV-related and STI knowledge, sexual risk behaviors and attitudes towards HIV-STI prevention. Conversely, there was no difference in tolerance towards PLHIV assessed using the stigma scale. There were significant main effects for group [$F = 155.94, p < 0.001, \eta^2 = 0.401$]; time [$F = 248.35, p < 0.001, \eta^2 = 0.516$] and group x time interaction [$F = 162.96, p < 0.001, \eta^2 = 0.412$] for HIV-related knowledge. Similarly, the main effects for group, time, and group x time interaction for STI knowledge, sexual risk behaviors, and attitudes were also significant. The peer-led HIV-STI intervention program developed was effective in improving knowledge and attitudes towards HIV prevention and reducing sexual risk behaviors among Nigerian university students.

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

EFEKTIFITAS PENURUNAN A TERKAWAL SECARA RAWAK TRIAL PROGRAM HIV-RISIKO-DILAPANGAN DENGAN MAHASISWA UNIVERSITI, ZARIA, AHMADU BELLO, NIGERIA

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Virus kurang daya tahan penyakit/ sindrom kurang daya tahan penyakit (HIV-AIDS) telah menjadi satu pandemik penyakit berjangkit yang penting pada milenium/zaman ini. Nigeria yang mempunyai lebih dari 2.9 juta orang yang hidup dengan HIV (PLHIV), adalah berisiko untuk peningkatan beban dan transmisi penyakit tersebut. Negara ini mempunyai beban penyakit yang kedua terbesar di dunia dengan golongan remaja di tengah-tengah epidemik ini. Kajian ini bertujuan untuk menilai keberkesanan sebuah program intervensi bimbingan rakan sebaya yang dirangka berdasarkan model kemahiran “Information-Motivation-Behavioral skills” di kalangan mahasiswa Universiti Ahmadu Bello, Zaria yang terletak di daerah utara Nigeria. Kami menggunakan sebuah rekaan ujian lapangan rawak terkawal untuk mengkaji kesan sebuah program intervensi HIV-STI ke atas pengetahuan berkaitan HIV-STI, tingkah laku seksual yang berisiko, sikap terhadap pencegahan jangkitan HIV dan STI, dan pembebasan/ penguraian stigma. Peserta telah dibahagikan secara rawak kepada

kumpulan intervensi atau kawalan. Sebuah program pencegahan HIV-STI bersepadu 8 jam yang terdiri daripada empat modul berstruktur telah dibangunkan dan diberi kepada kumpulan intervensi, sedangkan kumpulan kawalan pula telah menerima sebuah program pembangunan kerjaya selama 8 jam. Kedua-dua program telah disampaikan oleh rakan sebaya yang terlatih. Ukuran berulang dua-hala ANOVA telah digunakan untuk menilai keberkesanan intervensi tersebut. Hasil tindakan dinilai pada waktu sebelum intervensi, seurus selepas intervensi, selepas 3 bulan dan selepas 6 bulan. Responden di dalam kumpulan intervensi telah menunjukkan penambahbaikan yang signifikan di dalam pengetahuan berkaitan HIV dan STI, tingkah laku seksual berisiko dan sikap terhadap pencegahan HIV-STI. Sebaliknya, tiada perbezaan yang signifikan di dalam toleransi terhadap PLHIV apabila dinilai menggunakan skala stigma. Terdapat kesan utama yang signifikan bagi kumpulan [$F = 155.94, p < 0.001, \eta^2 = 0.401$]; masa [$F = 248.35, p < 0.001, \eta^2 = 0.516$] dan kumpulan x masa interaksi [$F = 162.96, p < 0.001, \eta^2 = 0.412$] bagi pengetahuan berkaitan HIV. Kesan utama bagi kumpulan, masa dan kumpulan x masa interaksi untuk pengetahuan STI, tingkah laku seksual berisiko, dan sikap juga didapati signifikan. Program pencegahan HIV-STI bimbingan rakan sebaya yang telah dibangunkan adalah berkesan dalam meningkatkan pengetahuan dan sikap terhadap pencegahan HIV serta mengurangkan tingkah laku seksual berisiko di kalangan mahasiswa Nigeria.

DEDICATION

To my family and friends, without whose support and care I wouldn't have realized my dreams in life. Indeed, they make sure they are always there to do the needful!



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Approval Sheet 1

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DECLARATION

I declare that the thesis is my original work except for quotations and citations, which have been duly acknowledged. I also declare that it has not been previously and is not concurrently, submitted for any other degree at University Putra Malaysia or other institutions.

Signature

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Date: 3 December, 2010.

TABLE OF CONTENTS

	Page
ABSTRACT	ii
ABSTRAK	iv
DEDICATION	vi
ACKNOWLEDGEMENT	vii
APPROVAL	viii
DECLARATION	xi
LIST OF TABLES	xv
LIST OF FIGURES	xvii
CHAPTER	
1.0 INTRODUCTION	1
1.1 Background	1
1.2 Rationale of the Study	5
1.3 Objectives	8
1.3.1 General Objective	8
1.3.2 Specific Objectives	9
1.4 Research Hypotheses	9
2.0 LITERATURE REVIEW	10
2.1 Human Immunodeficiency Virus (HIV)	10
2.1.1 History of HIV	11
2.1.2 HIV Virology	13
2.1.3 Viral Types	14
2.1.4 Disease Progression	14
2.1.5 HIV Diagnosis	15
2.1.6 HIV Treatment	17
2.2 Sexually Transmitted Infection (STI)	19
2.2.1 STI Types	20
2.2.2 Transmission Dynamics of STI	21
2.2.3 Health Consequences of STI	22
2.2.4 The Link between HIV and STI	24
2.3 Epidemiology of HIV/AIDS	26
2.3.1 Global Perspective	26
2.3.2 Nigerian Perspective	29

2.4 National Policy for the Prevention of HIV/AIDS in Nigeria	33
2.5 HIV/AIDS among Young People	35
2.6 HIV-related Knowledge	36
2.7 Attitudes towards HIV Prevention	40
2.8 HIV-STI Risk Behaviors	41
2.8.1 Transactional and Trans-generational Sexual Relationships	44
2.8.2 Multiple Concurrent Sexual Relationships	46
2.8.3 Wife Inheritance and Sharing	48
2.9 HIV/AIDS and Stigma	49
2.10 HIV-STI Risk Reduction Theories	54
2.11 Peer education and HIV/AIDS and STI risk reduction studies	56
2.12 Conceptual Framework	61
3.0 MATERIALS AND METHODS	64
3.1 Study Location	64
3.2 Study Design	66
3.3 Sample Size	66
3.4 Sampling Frame	67
3.5 Sampling Techniques	67
3.6 Inclusion Criteria	68
3.7 Exclusion Criteria	70
3.8 Recruitment	70
3.9 Data Collection Procedures	71
3.10 Data Collection Instruments	70
3.11 Validity and Reliability of the Study Instruments	74
3.11.1 Face Validity	74
3.11.2 Content Validity	75
3.11.3 Reliability Test	76
3.12 The Intervention	77
3.12.1 Program Delivery and Participation	77
3.12.2 Intervention Modules and Activities	79
3.12.3 Remunerations	81
3.12.4 Facilitators Training	81
3.13 Outcome Measures	82
3.14 Participants' Retention	82
3.15 Ethical Consideration	82
3.16 Data Analyses	83
4.0 RESULTS	85
4.1 Response Rates	85
4.2 Treatment for Missing Data	85
4.3 Treatment for Outliers	86

4.4 Background Profile of the Respondents	86
4.4.1 Demographic Characteristics	86
4.4.2 Health Care Utilization	87
4.4.3 Baseline Sexual History of Study Respondents	90
4.4.4 Baseline Outcome Measures	91
4.4.5 Baseline Comparison between Intervention and Control	94
Groups	
4.5 Evaluation of the Effectiveness of the Intervention	98
4.5.1 Effects of the Intervention on HIV and STI Knowledge	98
4.5.2 Effects of the Intervention on Sexual Risk Behaviors	103
4.5.3 Effects of the Intervention on HIV-STI Preventive Attitudes	107
4.5.4 Effects of the Intervention on HIV-related Stigma	109
4.5.5 Interaction between Group, Time and Gender	112
5.0 DISCUSSION	114
5.1 Attrition Rate	114
5.2 Health Care Utilization	114
5.3 Sexual History	115
5.4 Effectiveness of the Intervention	118
5.4.1 HIV and STI Knowledge	118
5.4.2 Sexual Risk Behavior	120
5.4.3 Attitudes towards HIV and STI Prevention	123
5.4.4 Stigma Scores	124
5.4.4 Gender Differences in the Effects of the Intervention	125
6.0 SUMMARY AND CONCLUSION	127
6.1 Conclusion	127
6.2 Strengths and Limitations	127
6.3 Recommendations for Future Studies	130
REFERENCES	132
APPENDICES	147
Appendix A: Questionnaire Information & Consent Sheet	148
Appendix B1: Demographic Information	149
Appendix B2: HIV Knowledge Questionnaire	152
Appendix B3: STI Knowledge Questionnaire	154
Appendix B4: Stigma Score	156
Appendix B5: HIV-STI Behavior Risk Questionnaire	157
Appendix B6: Attitudes towards HIV-STI Prevention Questionnaire	159
Appendix C: Request Letter	160
Appendix D1: Ethical Approval Letter 1	161