SEXUAL BEHAVIOUR AND HIV/AIDS KNOWLEDGE AMONG WOMEN IN ZAMBIA

by

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Student number: 3501-538-1

DECLARATION

I declare that ***SEXUAL BEHAVIOUR AND HIV/AIDS KNOWLEDGE AMONG WOMEN IN ZAMBIA*** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references and this work has not been submitted before for any other degree at any other institution.

…… **28 January 2011**

…… ……..

SIGNATURE **DATE**

(Catherine Mubita A Ngoma)

SEXUAL BEHAVIOUR AND HIV/AIDS KNOWLEDGE AMONG WOMEN IN ZAMBIA

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ABSTRACT

The purpose of the study was to determine the factors that predict women's risky sexual behaviour and HIV and AIDS knowledge. A quasi-experimental, pre-test-post-test research design, with a non-equivalent comparison group was conducted to determine if there was an association between young women's sexual behaviour and HIV/AIDS knowledge on aspects of HIV/AIDS transmission and prevention and behaviour change. The study used both quantitative and qualitative approach.

Data collection was done using semi-structured interview schedule and focus group discussion guide. The respondents who participated in the study were women between the ages of 15-25 years. Two groups of respondents participated in the study. Women in the quasi-experimental site (N=200) who received the intervention and women in the control site (N=200) who did not receive any intervention.

Quantitative data were analysed with the help of a statistician and the Epi Info statistical package was used. Qualitative data obtained from the focus group discussion were analysed using Tesch's method of analysis.

The major inferences drawn from this study are that young women lack knowledge relating to HIV/AIDS and that some young women were engaged in risky sexual behaviours such as having multiple sexual partners and having unprotected sex. The study indicates that peer education strategy has the potential to make an impact on these young women. It has also shown that peer education can play an important role in increasing knowledge and reducing risky sexual behaviour.

KEY CONCEPTS

Acquired Immunodeficiency Syndrome; Human Immunodeficiency Virus; knowledge; Peer education; sexual behaviour; women aged 15-24 years; Zambia.

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Dedication

To my daughters Flora, Eleanor, Helen and son Yotam,
for their continuous love and support

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List of abbreviations

ACAFE	Alliance for Community Action on Female Education
AIDS	Acquired Immunodeficiency Syndrome
ARRM	Aids Risk Reduction Model
ARV	Antiretroviral
CSO	Central Statistical Office
CBoH	Central Board of Health
CDC	Centre for Disease Control and Prevention
CHW	Community Health Worker
DHS	Demographic Health Survey
DOTS	Directly Observed Treatment Short course
FGD	Focus Group Discussion
HBM	Health Belief Model
HIV	Human Immunodeficiency Virus
IEC	Information Education and Communication
ILO	International Labour Organisation
LCM	Locus of Control Model
MoH	Ministry of Health
MoH/CBoH	Ministry of Health/Central Board of Health
MTCT	Mother to Child Transmission
NGO	Non-Governmental Organisation
PAGE	Programme for Advancement of Girls Education
SSA	Sub Saharan Africa
STIs	Sexually Transmitted Infections
TB	Tuberculosis
TBA	Traditional Birth Attendant
tTBA	Trained Traditional Birth Attendant
UNAIDS	United Nations Programme on HIV/AIDS
USA	United States of America
VCT	Voluntary Counselling and Testing
Vs	Versus
WHO	World Health Organization
ZDHS	Zambia Demographic Health Survey
ZIS	Zambia Information Services

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Permission to conduct a study on women's sexual behaviour and HIV/AIDS in Zambia from Chikankata Mission Hospital

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Permission to conduct a study on women's sexual behaviour and HIV/AIDS in Zambia from Nangoma Mission Hospital

Appendix M

A module on HIV/AIDS: Management and prevention for young women

Appendix N

Orientation programme for research assistants

Appendix A

DATA COLLECTING INSTRUMENT

(SEMI-STRUCTURED INTERVIEW SCHEDULE (FOR WOMEN))

Sexual behaviour and HIV/AIDS knowledge among rural young women in Zambia

Questionnaire serial number .....

Name of interviewer .....

Date of interview .....

Time of interview .....

Place .....

Instructions to Interviewers

1. Do not write the name of the respondents on the interview schedule
2. Tick in the box next to the chosen answer for questions with alternative responses
3. Write in the space provided for open-ended questions
4. Ask all the questions on the interview schedule in sequence
5. Do not omit any question
6. Write neatly and legibly on the interview schedule

Section A: Demographic Data

Socio-demographic characteristics of respondents

1. How old are you? No of years on last birthday……Date of birth……

2. What is your present marital status?

    1. Married
    2. Never married
    3. Divorced
    4. Separated
    5. Widowed

3. What highest level of education did you complete?

    1. No education
    2. Lower primary School
    3. Upper primary School
    4. Junior secondary School
    5. Senior secondary School

4. How many years did you complete in School? ……..

5. What is your religious affiliation?

    1. Conservatives
    2. Protestants

6. What is your tribe?

1. Tonga
2. Ila
3. Lozi
4. Bemba
5. Nyanja
6. Luvale
7. Lunda
8. Kaonde
9. Others specify…….

7. What is your level of monthly income (Kwacha)?

1. No income
2. below K100, 000
3. K100, 000 – K200, 000
4. above K200, 000

8. How long have you live in this village

1. 2-5 years
2. 6- 10 years
3. More than 10 years

Section B: Knowledge

9. Have you ever heard of HIV/AIDS?

1. Yes
2. No
3. No response

10. If yes, what is HIV?.....

11. What is AIDS? ……

12. What causes HIV/AIDS?

    1. HIV virus
    2. Mosquito bite
    3. Drinking dirty water
    4. Kissing
    5. Others-please Specify

13. Can a healthy looking person have the HIV virus?

    1. Yes
    2. No
    3. Don't Know

14. What are the common symptoms of HIV infection? Indicate your response by writing yes or No

    1. Profound weight loss (Yes/No)
    2. Diarrhoea daily or intermittent > 1 month (Yes/No)
    3. Fever, continuous or intermittent > 1 month (Yes/No)
    4. Repeated or multi-focal abscesses (Yes/No)
    5. Cough more than 1 month (Yes/No)
    6. generalised pruritic dermatitis (Yes/No)
    7. Herpes zoster (Yes/No)
    8. Pulmonary Tuberculosis (Yes/No)
    9. Extra-pulmonary tuberculosis (Yes/No)
    10. Dementia (Yes/No)
    11. Severe drug reaction (Yes/No)
    12. Hairy leukoplakia (Yes/No)
    13. Recurrent oral candidiasis (Yes/No)

14. Nerve palsies or paraplegia (Yes/No)

15. Non-genital molluscum contagiosum (Yes/No)

15. How is HIV infection spread? Indicate your response by writing yes and no.

1. Sexual intercourse (Yes/No)

2. Mother to child (Yes/No)

3. Contaminated Blood and blood products (Yes/No)

4. Sharing of sharp instruments (Yes/No)

5. Unsafe injection practices (Yes/No)

16. How can HIV infection be prevented? Indicate your response by writing yes or no

1. Use condoms each time you have sex (Yes/No)

2. Being faithful to your partner (Yes/No)

3. Avoid sex with minors (Yes/No)

4. Avoid re-use of cutting instruments (Yes/No)

4. Avoid dry sex and sexual cleansing (Yes/No)

SECTION C: Behavioural risk factors

17. Have you ever had sexual intercourse?

1. Yes

2. No

3. No response

18. At what age (years) did you have sexual intercourse for the first time?

1. < 10

2. 10-14

3. 15-19

4. 20-24

5. 25-29

6. 30-34

7. 35+

19. If you are/were married, at what age did you get married?

1. 15-19

2. 20-24

3. 25-29

4. 30-34

5. 35+

20. If single, do you have a regular sex partner?

1. Yes

2. No

3. No response

21. How many regular sex partners have you had in the past year?

1. One

2. Two

3. Three

4. More than 3

5. Don’t know

22. How many casual sex partners have you had in the past year?

1. One

2. Two

3. Three

4. More than 3

23. How many sex partners have you had during the past one month?

1. One

2. Two

3. Three

4. More than Three

24. Did you use a condom during the last sexual intercourse with your regular partner?

1. Yes

2. No

3. No response

25. Did you use a condom during the last sexual intercourse with your casual partner?

1. Yes

2. No

3. No response

26. Do you usually use a condom with your regular or casual partner?

1. Yes

2. No

3. No response

27. Do you think that unprotected sex carries a risk of HIV/AIDS?

1. Yes

2. No

3. No response

28. In your own opinion do you think unprotected sex carries a risk of HIV/AIDS?

1. Yes

2. No

3. Don't know

29. Are young women at risk of HIV/AIDS?

1. Yes
2. No
3. Don’t know

30. Is a condom necessary in the prevention of HIV/AIDS?

1. Yes
2. No
3. Don’t know

31. In your opinion, can a condom prevent the spread of HIV/AIDS?

1. Yes
2. No
3. Don’t know

32. Can women propose condom use to their partners?

1. Yes
2. No
3. Don’t’ know

33. Do you think women should propose condom use to their partners?

1. Yes
2. No
3. Don’t know

34. Can abstinence prevent the spread of HIV/AIDS and STIs?

1. Yes
2. No
3. Don’t know

35. Can having one sexual partner reduce HIIV/AIDS/STIs?

1. Yes
2. No
3. Don’t know

36. Whose responsibility is it to protect both partners from acquiring a sexually transmitted infection or HIV/AIDS?

1. Men
2. Women
3. Men and Women

37. Do you often discuss sex matters/protection with your regular partner/casual partner?

1. Yes
2. No
3. No response

38. Have you ever discussed STI/HIV/AIDS prevention with regular partner/casual partner?

1. Yes
2. No
3. No response

WE HAVE COME TO THE END OF THE INTERVIEW. THANK YOU FOR YOUR COOPERATION.

Appendix B

FOCUS GROUP DISCUSSION GUIDE

Purpose

To identify HIV/AIDS knowledge gaps and behaviour that predisposes young women to HIV/AIDS in order to develop appropriate strategies to address these problems.

Objectives

- To obtain information on community's understanding of HIV/AIDS
- To explore factors that are likely to expose young women to HIV infection
- To obtain community input concerning potential strategies for improving HIV/AIDS knowledge levels and risky sexual behaviours.

Discussion Topics

HIV/AIDS KNOWLEDGE

1. What is HIV?
2. What is AIDS?
3. Is HIV the same as AIDS?
4. Is HIV/AIDS a serious problem in the community?
5. How does a person with HIV/AIDS look like?
6. How does one get HIV?
7. Can HIV/AIDS be cured?
8. What can young women do to protect themselves from HIV infection?

Sexual behaviour

1. Have you ever had sex before?
2. At what age did you have sex for the first time?
3. How old was your first sexual partner?
4. Have you ever used a condom?
5. How many sexual partners do you have?
6. Did you use a condom the last time you had sex?
7. Do you use a condom with your regular partner each time you have sex?
8. Do you use a condom with casual partners each time you have sex?
9. Have you used a condom each time you had sex in the last one month?
10. 10. Would you initiate condom use with your partner?

Suggestions for addressing the problem of HIV/AIDS

- What are some of the ways in which the problem of HIV/AIDS could be addressed?
- Who in the community should actively work to so something about addressing this problem?

Thank you for finding time to attend the interview and for your contributions.

Appendix C

INDICATORS FOR MEASURING YOUNG WOMEN'S KNOWLEDGE AND SEXUAL BEHAVIOUR

Knowledge

- How can HIV/AIDS be defined?
- What causes of HIV/AIDS?
- How is HIV/AIDS transmitted?
- How can HIV/AIDS be prevented?

Condom

- Have you ever used condoms?
- Did you use a condom in during last sex with regular partner?
- Did you use a condom in during last sex with casual partner?
- How often do you use a condom when having sex with your partner?

Susceptibility of sexual risks

- Does sex carry the risk of sexually transmitted infections?
- Does sex carry the risk HIV/AIDS?
- Does sex carry the risk of un wanted pregnancy?
- Are young women at risk of sexually transmitted infections and HIV/AIDS?

Benefits of condom use

- Can a condom prevent sexual risks such us sexually transmitted infections and unwanted pregnancies?
- Can a condom prevent transmission of HIV/AIDS and sexually transmitted infections?
- Can abstinence prevent transmission of HIV/AIDS and sexually transmitted infections?
- Do you think that having only one sex partner can prevent transmission of HIV/AIDS and sexually transmitted infections?

Barriers to condom use

- Should women propose condom use?
- Are women shy to buy condoms in public?
- Are men responsible for protection from HIV/AIDS and sexually transmitted infections, and unwanted pregnancies?

Self-efficacy

- Do you often discuss sex/protection with partner/casual partner?
- Do you discuss STI/HIV/AIDS prevention with partner/casual partner?

Sexual behaviour

- Have you had sexual intercourse before?
- At what age did you have sex for the first time?
- Have you had two or more regular partners in the last one month?
- Have you had two or more casual partners in the last one month?
- Have you had two or more partners in the last one month?
- Have you had two or more partners in the last one month?

Appendix D

INFORMED CONSENT

Dear Participant

I am Catherine Mubita Ngoma the Acting Head of Department and Lecturer in the department of Post basic Nursing currently studying a postgraduate course (D Litt et Phil) at the University of South Africa. I am conducting a study on young women's sexual behaviour and knowledge about HIV/AIDS in Nangoma community.

The purpose of the research is to see if young women engage in risky sexual behaviours that could predispose them to HIV infection and to give them information that could help them change such behaviours. Although this study will not benefit you directly, the information obtained may help those young women engaged in such behaviours to refrain as these encourage the spread of HIV infection. You will also be given information to strengthen you knowledge about HIV infection and its transmission.

There are no risks or discomfort to you by sharing information. You will be interviewed in your home at a time convenient to you. I will ask you questions about HIV/AIDS and your sexual practices as a young woman. The interview will take about one to one and half-hours. I will also contact you for more information in the future.

The interview is entirely voluntary and that even after the interview begins you can refuse to answer any specific questions or decide to terminate the interview at any point. Your participation or non-participation or refusal to answer questions will have no effect on services that you and any member of your family may receive from health care providers. Your responses to the questions will not be given to any one else and your name will not be written on the interview schedule. All data will be stored in a secure place and no one except the research team will have access to your interview. Your identity will not be revealed when the study is reported or published

If you have any questions about the study or participation in the study, please feel free to ask me (Catherine Mubita Ngoma). You may call me at 01-252453 (Work) or 01-295427 (Home). You may also contact the Chairman, Research and Ethics Committee, School of Medicine, University of Zambia at 01-256067

_____

The appropriate people and research committees of UNISA and University of Zambia have approved the study and its procedures.

I have discussed the above points with the participant. It is my opinion that the participant understands the risks, benefits and obligations involved in participating in this study

Investigator_____ Date _____

_____

I understand that my participation is voluntary and that I may refuse to participate or withdraw my consent and stop taking part at any time without penalty.

I_____ hereby freely consent to take part in this research study.

Signature/Thumb print of participant_____

Date_____

Appendix E
BUDGET FOR THE RESEARCH STUDY

Serial NO	Budget category	Unit cost in (K)	Quantity	Total Cost
1.	Stationery			
	• Bond paper	25,000	5 reams	250,000
	• Pens	1,000	12 x 5	60,000
	• Pencils	500,	5	2,500
	• Note books	5,000	5	25,000
	• Tippex	8,000	5	40,000
	• Stapler	40,000	1	40,000
	• Staples	10,000	1	10,000
	• Perforator	40,000	1	40,000
	SUB-TOTAL			**8,020 50**
2.	Personnel			
	• Lunch allowance	50,000	5 x 50 x 40 days	12, 250,000
	• Research bags	50,000	5 x 50	250,000
	• Transport	50,000	5 x 50 x 40 days	12,250,000
	• Training research assistants	100,000	100 x 5 x 4 days	4,000,000
	SUB-TOTAL			**25,400,000**
3.	Typing services			
	• Typing proposal			
	• Typing questionnaire	100,000		100,000
	• Photocopying questionnaire	25,000	500	25,000
	• Typing report	300	4	
	• Photocopying report	20,000	4	1,500,000
	• Binding	20,000	4	80,000
	• Binding proposal	20,000		80,000
				80,000
				80,000
	SUB-TOTAL			
	Contingency 10%			3,000,000
	TOTAL			**30,000,000**

Appendix F

The Director
Nangoma Mission Hospital
P0 Box 1
Nangoma
MUMBWA

UFS The Dean School of Medicine
PO Box 50110
Lusaka

Dear Sir

PERMISSION TO CONDUCT A RESEARCH STUDY IN NANGOMA MISSION HOSPITAL CATCHMENT AREA

I am the Acting Head of Department and Lecturer in the Department of Post Basic Nursing at the School of Medicine at the University of Zambia. I am currently doing post graduate studies (D Litt et Phil) at the University of South Africa through distance education. I am requesting for your permission to conduct a research study in your hospital catchment area. The topic for my study is women' sexual behaviour and HIV/AIDS knowledge and the target population is young women. I wish to commence data collection in the months of July 2006.

I would be very grateful if my request would be considered as quickly as possible.

Thanking you in anticipation.

Yours faithfully

CATHERINE AM NGOMA (MRS)

Appendix F

UFS The Dean School of Medicine
PO Box 50110
Lusaka

The Director
Chikankata Mission Hospital
Private Bag S 2
Mazabuka
ZAMBIA

Dear Sir

PERMISSION TO CONDUCT A RESEARCH STUDY IN CHIKANKATA MISSION HOSPITAL CATCHMENT AREA

I am the Acting Head of Department and Lecturer in the Department of Post Basic Nursing at the School of Medicine at the University of Zambia. I am currently doing post graduate studies (D Litt et Phil) at the University of South Africa through distance education. I am requesting for your permission to conduct a research study in your hospital catchment area. The topic for my study is women' sexual behaviour and HIV/AIDS knowledge and the target population is young women. I wish to commence data collection in the months of July 2006.

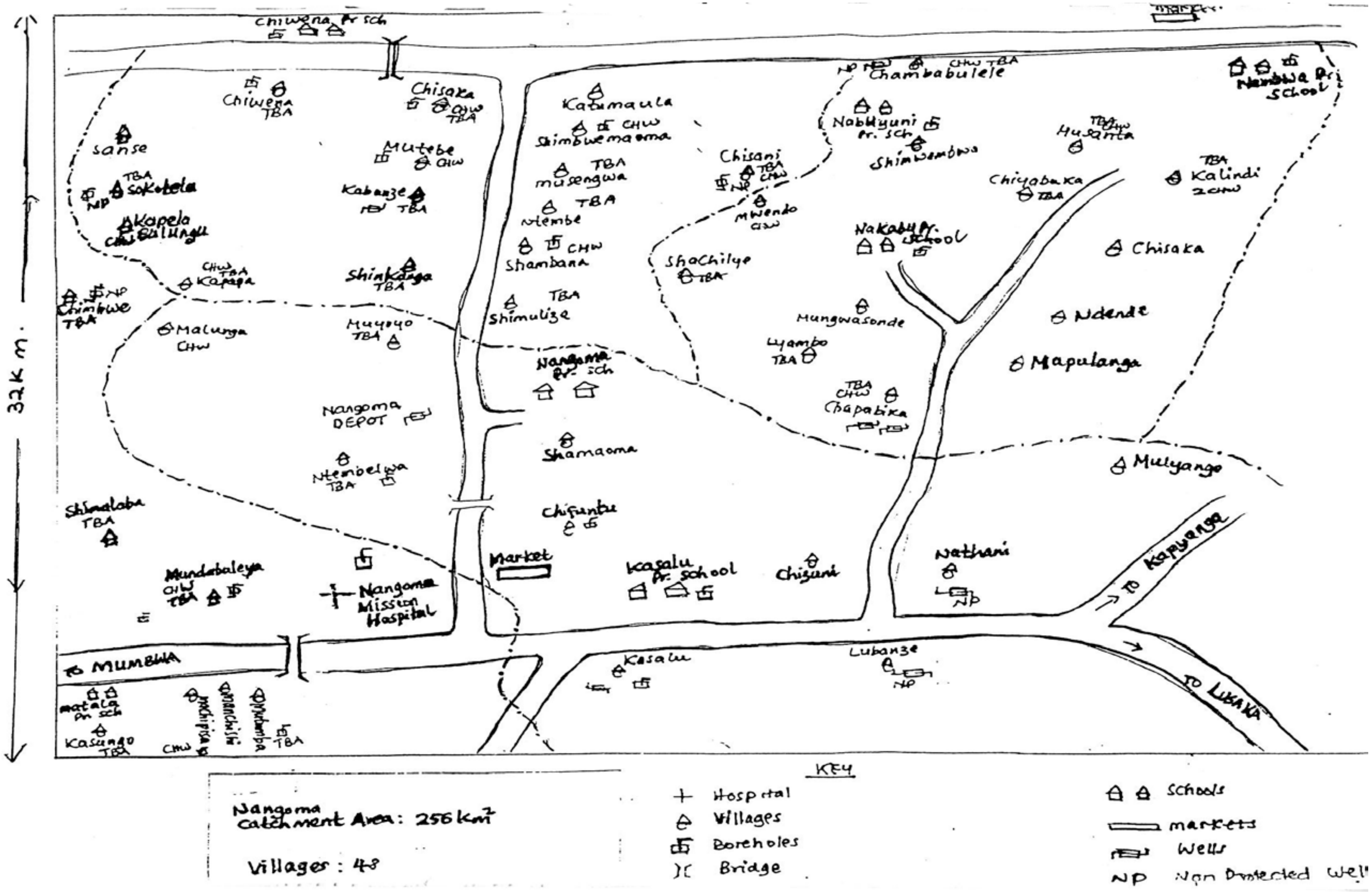
I would be very grateful if my request would be considered as quickly as possible.

Thanking you in anticipation.

Yours faithfully

CATHERINE AM NGOMA (MRS)

Appendix G
Nangoma Mission Hospital catchment area



Appendix H

Role play on the face of HIV/AIDS

Anna a 15-year-old young woman is in grade 9 at a basic school. Her parents want her to stop school and get married to a 45 year old man who has married twice and divorced because they had no money to pay for her education. She finally stops school against her will and marries the man. They have unprotected sex and never considered using a condom because she did not know its benefits.

Two years later she had a son who was healthy but she developed an AIDS defining illness (TB). She goes to the district hospital where an HIV test was taken and diagnosed HIV positive but her husband rejects for fear of getting HIV. She is put on treatment and her health status improves tremendously.

Comments

Young women should be concerned about unprotected sex because no one ever knows anyone else's true sexual history. Even if it is known very few people know their HIV status unless one has been tested. As this adage says **"You cannot tell by looking".**

It also shows that older men could also be a source of infection for young people.

The play emphases the importance of seeking medical assistance early. It also shows the stigma and discrimination women go through when they are HIV positive.

Appendix I


Chikankata Health Services
Chikankata church Health institution
Southern province of Zambia
Catchment's area Map
Catchment population 76000
Kafue town
Turn park
mazabuka town
chikankata turn off
Coffee plantation
siavonga road
Tungwashane IGA club
Key
Mabwetuba
Nameembo RHC
Nadezwe RHC
Twalelekwa IGA
Malala
Chikombola RHC
Chaanga RHC
Koto club
NTS
RHC
Sianyoola
Support group
ngangula
Chikankata Health Services
Hamnande
Kooma village
Kulijata IGA club
Siavonga town
Siavonga district

Appendix J

THE UNIVERSITY OF ZAMBIA

RESEARCH ETHICS COMMITTEE

Telephone: 260-1-256067
Telegrams: UNZA, LUSAKA
Telex: UNZALU ZA 44370
Fax: + 260-1-250753
E-mail: unzarec@zamtel.zm

Ridgeway Campus
P.O. Box 50110
Lusaka, Zambia

Assurance No. FWA00000338
IRB00001131 of IORG0000774

15 August, 2006
Ref.: 024-06-06

Ms Catherine Mubita Ngoma
Post Basic Nursing Department
School of Medicine
P.O. Box 50110
LUSAKA

Dear Ms Ngoma,

RE: RESEARCH PROPOSAL ENTITLED: **"SEXUAL BEHAVIOUR AND HIV/AIDS KNOWLEDGE AMONG YOUNG WOMEN"**

The above research proposal was presented to the Research Ethics Committee meeting on 26 July, 2006 where changes were recommended. We would like to acknowledge receipt of the corrected version with clarifications. The proposal has now been approved. Congratulations!

CONDITIONS:

- This approval is based strictly on your submitted proposal. Should there be need for you to modify or change the study design or methodology, you will need to seek clearance from the Research Ethics Committee.
- If you have need for further clarification please consult this office. Please note that it is mandatory that you submit a detailed progress report of your study to this Committee every six months and a final copy of your report at the end of the study.
- Any serious adverse events must be reported at once to this Committee.
- Please note that when your approval expires you may need to request for renewal. The request should be accompanied by a Progress Report (Progress Report Forms can be obtained from the Secretariat).

Yours sincerely,

Prof. J. T. Karashani, MB, ChB, PhD
CHAIRMAN

Date of approval: 15 August, 2006 **Date of expiry**: 14 August, 2007

Appendix K

The Salvation Army
Zambia Territory
Chikankata Health Services
Private Bag S 2, Mazabuka, Zambia
Tel: 01 222060
Fax: 01 226784
E-Mail: Chikankata@zamnet.zm

18th May 2007

Mrs. Catherine M. Ngoma
Department of Post Basic Nursing
School of Medicine, UNZA
LUSAKA

Dear Mrs. Ngoma,

PERMISSION TO CONDUCT A RESEARCH AT CHIKANKATA HOSPITAL ON WOMEN SEXUAL BEHAVIOR AND HIV/AIDS

We acknowledge receipt of your letter dated 16th July 2006 which you requested for permission to conduct a research study in Chikankata Mission Hospital Catchment area.

The research on "Women's Sexual Behaviour and HIV/AIDS Knowledge has been permitted to be conducted as you speculated in your letter.

Thank you and may God be with you.

Yours sincerely

RICHARD BRADBURY
MANAGER ADMINISTRATION

Appendix L

NANGOMA MISSION HOSIPILTAL
ST JOSEPH CATHOLIC CHURCH, PO BOX 01
NANGOMA, MUMBWA

15 th July 2006

Our Ref: The administrator

Ref: Mrs. Catherine A. M. Ngoma
University of Zambia
School of Medicine
Department of Post Basic Nursing
PO Box 50110
Lusaka

Dear Madam,

Ref: Permission to conduct a research study at our Hospital Catchment area

Reference is made to the above captioned subject.

I am pleased to inform you that the Hospital Management Team has no objection to your request as mentioned above. By copy of this letter Hospital staffs are requested to cooperate with you.

Wishing you all the best in your endeavors.

Yours faithfully,

V.K. Phiri
Hospital Administrator/for Hospital Management Team

Appendix M

A MODULE ON HIV/AIDS: MANAGEMENT AND PREVENTION

FOR YOUNG WOMEN

TABLE OF CONTENT

CONTENT

1. INTRODUCTION

2. UNIT 1: HIV, the immune system and transmission

- Definition of terms
- Historical background in Zambia
- Transmission of HIV/AIDS
- Why women are more easily infected
- Factors contributing to the spread of HIV in Zambia
- The effect of the virus on the Immune system
- Activity

3. UNIT 2: HIV/AIDS related symptoms, progression and diagnosis

- Symptoms and diseases associated with HIV/AIDS in children and adults
- Progression of HIV Infection
- Diagnosis of HIV/AIDS
- Activity.

4. UNIT 3: Management and Prevention of HIV/AIDS

- Management of HIV Infection
- Prevention of HIV/AIDS Transmission

INTRODUCTION

This module aims at introducing HIV/AIDS health promotion messages to the community with a view of promoting behaviour change and minimizing the spread of HIV Infection. A good basic knowledge of HIV/AIDS is essential for all people in order to minimize transmission.

The module is divided into three units which cover the definition of HIV/AIDS, how HIV/AIDS is transmitted, effects of the virus on the immune system, signs and diseases associated with Aids, Management and prevention of HIV/AIDS.

At the end of this module learners should be able to:

- Demonstrate an understanding of the key concept of HIV/AIDS
- Explain the transmission of HIV Infection.
- Identify and analyze factors that influence the transmission of HIV infection.
- Show an understanding of how HIV/AIDS is managed and prevented.

UNIT I: HIV, THE IMMUNE SYSTEM AND TRANSMISSION.

OBJECTIVES

At the end of this unit students should be able to:

- Define HIV/AIDS and describe its history.
- Describe ways in which HIV is and not transmitted.
- Explain why women are easily infected than men
- Explain factors that contribute to spread of HIV/AIDS.
- Explain the effect of HIV on the Immune System.

DEFINITION OF TERMS

1. Human Immunodeficiency Virus (HIV): Is the virus that causes the Acquired Immunodeficiency Syndrome (AIDS).
2. Acquire Immunodeficiency Syndrome AIDS: Is a complex of different kinds of diseases in an individual, who's Immune System, has been severely weakened by HIV.
3. The term Acquired means that HIV is caused by an organism from outside the body.
4. The term immune deficiency refers to the fact that HIV attacks the immune system an infected person and renders it deficient.
5. The term Syndrome means that AIDS presents itself not as a specific illness of disease but as a collection of many conditions.

HISTORICAL BACKGROUND OF HIV IN ZAMBIA

The first case of Aids was diagnosed in 1984 in Zambia. HIV/AIDS is now Zambia's major developmental problem. It has a tremendous negative impact on the economy and on the ability of households to cope. The prevalence of HIV Infection among the adult population is now estimated at 16% with more than 1 million people living with HIV/AIDS. AIDS is now a major contributor to under five children's deaths.

HOW IS HIV/AIDS SPREAD?

The most common means of spread in Zambia are:

1. Sexual intercourse. One sexual contact with an infected person may be enough to transmit HIV.
2. Transfusion of contaminated blood and blood products.
3. Mother to child Transmission (MTCT) of HIV.

In Zambia, the risk of an HIV and pregnant woman transmitting HIV to her infant is about 40%.Risk of transmission is increased when the mother has a higher concentration HIV in the body. This is the case when:

- The mother is newly infected with HIV.
- The mother is in an advanced stage of the disease.

MTCT is the transmission of HIV from an infected woman during pregnancy, delivery, breast feeding to a child. MTCT is by far the largest source of infection in children below the age of 15 years.

Factors that contribute to MTCT are:-

- Prolonged rupture of membranes of more than 4 hours.
- Intra-partum haemorrhage
- Micronutrient deficiency such as Vitamin A.
- In breastfeeding mother – cracked nipples, mastitis and breast abscesses.
- New maternal HIV infection during lactation.
- Oral infections in the breast feeding baby e.g. oral thrush.
- Sharing of sharp instruments such as needles of razor blades during circumcision, tattooing, ear piercing.

5. Unsafe infection practices such as reusing un-sterile needles or syringes and sharing of needles between drug users.

HIV is not transmitted through:

- Mosquito bite
- Sharing cups or utensils
- Food
- Coughing
- Use of the same towels
- Sharing toilets.

HIV is not spread in these ways because there is no contact with fresh blood, semen or vaginal fluid which has large concentrations of HIV. HIV is killed by boiling or sterilisation with Jik.

WHY WOMEN ARE MORE EASILY INFECTED

It is important to take note of the reasons why women are more easily infected with HIV than men. Women are more vulnerable to HIV infection because women as the recipients of semen are exposed to the sexual fluids of their partner(s) for a longer time than men. Similarly, homosexual behaviour exposes men to sexual fluids of their partners for a longer time. In addition, the area or surface that is exposed to the partner's secretions during sexual intercourse is longer in the case of women that in men.

FACTORS CONTRIBUTING TO THE SPREAD OF HIV IN ZAMBIA

- High prevalence levels of sexually transmitted infections (STIs) – persons with STIs are 2-5 times more likely to become infected with HIV.
- Poverty – put individuals at higher risk of high – risky sexual behaviour.
- Unprotected sex and low rates of condom use – increase the risk for STIs and HIV infection.

- Low social and economic status of women – contributes to their inability to negotiate for safer sex and makes them susceptible to engage high-risk sexual behaviours.
- Urbanisation and mobility: Increase the spread of HIV especially when sexual partners are separated for long periods.
- Sexual activity at an early age: The immaturity of the genital tract enhances chances of trauma and transmission of HIV.
- Cultural beliefs and practices – Such as dry sex, sexual cleansing, early onset of sexual activity such as early marriages, reuse of cutting instruments used for scarification.
- Transfusion of un – screened blood.
- Mother-to-child transmission (especially at the time of delivery)
- Re-use of unsterilised infection equipment (needless, Syringes etc).
- Needle-stick and other occupational exposures.

THE EFFECT OF THE VIRUS ON THE IMMUNE SYSTEM.

Human Immunodeficiency Virus is the virus that causes AIDS. Transmission occurs through the transfer of body fluids by four main routes: - Sexual intercourse, mother to child transmission, Blood transfusion and by sharing unclean needles with infected persons.

Once the virus enters the body, it goes into the blood stream and infects the most important cells involved in the immune response called the CD4 cells. The virus uses the CD4 cells to manufacture more viruses before destroying them. In other words the virus multiplies rapidly stimulating the development of antibodies, hence a person is said to be antibody positive. Immediately the cells are destroyed and become few, the immune system collapses and makes the body defenceless against other pathogens, leaving the body susceptible to infections that a health person would normally fight (opportunistic infections).

Although the person may have no symptoms or signs of the disease, they still can infect others. The risk of transmission is highest soon after becoming infected and during the latter stages when AIDS has developed

ACTIVITY: QUESTIONS FOR DISCUSSIONS

- What is meant by the term HIV?
- What is meant by the term Immune Deficiency?
- What is meant by the term AIDS?
- What are the factors that contribute to the spread of HIV/AIDS?
- What are the effects of HIV on the Immune System?

UNIT 2: HIV/AIDS RELATED SYMPTOMS PROGRESSION AND DIAGNOSIS

At the end of this unit learners should be able to:-

1. Recognise the major symptoms and diseases associated with HIV/AIDS in children and adults.
2. Describe how HIV/IDS can be diagnosed.

STAGES OF PROGRESSION

1. **Window period**

This is the period from the point of infection to the time one tests positive. In the window period the test results is negative. During this period one may experience flu like symptoms frequently after a few weeks to a few months from the point of infection. This happens because the body attempts to combat the first entry of HIV virus. The symptoms may last only up to two weeks.

2. **Sero-Conversion**

This is when a person converts from HIV negative to HIV positive status. It is the time when antibodies first develop and can be detected in the blood. This period usually takes 2-4 weeks but can take up to 3 months. During this time there are no symptoms but a person is highly infections because the HIV is replicating quickly without being kept in check by antibodies.

3. **Asymptomatic sero-positive stage**

This is the period from sero-Conversion to the time one begins to manifest symptoms. There are no symptoms of the infection. This period varies from person to person, depending on the diet, health habits, the individual's attitude, and other factors that influence the immune system.

4. **Symptomatic Stage.**

This is the stage when the immune system begins to deteriorate and some symptoms begin to manifest.

5. **Full – Blown Aids**

During this stage the immune system is weakened, and the body is unable to fight off nearly all infections. Multiple symptoms are a common feature during this stage.

DIAGNOSIS

Diagnosis of HIV Infection is by an HIV antibody test. It is also made using the WHO clinical case definitions for adults and children but a clinical diagnosis of AIDS should be confirmed by an HIV test.

The WHO clinical case definition for AIDS in an adult is: the existence of at least two of major signs plus at least one minor sign in the absence of diabetes, malignancy or other diseases known to cause immuno suppression.

The presence of any of the following opportunistic infections in patients who have tested positive for HIV satisfies diagnostic criteria for AIDS:

- Cryptococcal meningitis
- Pharyngeal/oesophageal candidiasis
- Generalised extensive Kaposi's sarcoma.
- Extra-nodal non-Hodgkin's lymphoma

Table 2.1 AIDS CLINICAL SIGNS IN ADULTS

MAJOR SIGNS	MINOR SIGNS
Profound weight loss Diarrhoea,daily or intermittent>1month Fever, continuous or intermittent>I month Repeated or multi-focal abscesses.	-Cough>1 month - Generalised pruritic dermatitis - Multi dermatomal Herpes Zoster. - Atypical pulmonary tuberculosis - Extra-pulmonary tuberculosis - Dementia - Non-genital molluscum contagiosum - Severe drug reaction - Hairy leucoplakia - Unexplained nerve palsies, or paraplegia or nerve palsies of a cute onset. - Recurrent oral candidiasis

Aids clinical signs in children: The WHO clinical case definition of paediatric aids is: the existence of at least two major signs and two minor signs. Children usually develop symptoms of HIV infection faster than adults and the majority of infected babies develop disease during the first year of life.

Table 2.2 AIDS CLINICAL SIGNS IN CHILDREN

MAJOR SIGNS	MINOR SIGNS
- Repeated respiratory infection (otitis media, pharyngitis, pulmonary infections) - Prolonged fever>1 month - Recurrent oro-pharyngeal candidiasis.	- Generalised lymphadenopathy - Chronic recurrent diarrhoea - Weight loss or failure to grow - Persistent cough - Extra–pulmonary or extensive TB. - Confirmed maternal HIV infection. - Skin conditions (generalised eczema, dermatis) - Chronic parotitis

For HIV/AIDS in neonates and infants below 3 months of age, the following features signify the possibility of infection.

- Maternal HIV Infection
- Failure to thrive
- Recurrent diarrhoea
- Prolonged fever
- Repeated major infections (septicaemia)
- Diarrhoea
- Haemolytic anaemia
- Recurrent oro-pharyngeal candidiasis
- Pulmonary or extra-pulmonary tuberculosis
- Syphilis in the newborn, along with other intrauterine infections.

ACTIVITY: **QUESTIONS FOR DISCUSSION**

Name the major and minor symptoms of Aids in adults

Name the typical symptoms of children with Aids.

What symptoms do people often present with during sero-conversion?

UNIT 3. MANAGEMENT AND PREVENTION OF HIV/AIDS

At the end of this unit, learners should be able to:

- Explain the goal of art
- Discuss the side effect of Antiretroviral therapy
- Explain ways in which HIV/AIDS can be prevented.

1. MANAGEMENT OF HIV INFECTION

There is no known cure for HIV/Aids. Anti-retroviral Therapy (ART) is used in the treatment of HIV. These drugs have changed HIV/AIDS from a progressive fatal disease to a chronic management disease. A wide variety of drugs are now available allowing individuals the choice of effective therapy and enabling them to switch to therapies that are easier to comply with and less toxic drugs.

The goals of ART are to:

- Reduce the amount of HIV viruses in the body by inhibiting viral replication
- Support and help the immune system
- Improve both quality and quantity of life.
- Reduce HIV related illnesses and deaths.
- Reduce risk of HIV transmission to others.

ARVs are now available at district and provincial hospitals in the Country. For one to start ART she/he needs to be seen by a doctor who will assess the patient. The CD4 cell count is used as an indicator when to start ART.

There are currently ARV drugs from three different classes available in Zambia. The nucleosides reverse transcriptase inhibitors (NRTS), the non nucleoside reverse transcriptase inhibitors (NNRTI) and the protease inhibitors (PI). Some of these are available in fixed combinations.

The ARV drugs have to be taken daily for life and patients need to adhere to the prescribed regimen.

Commonly seen adverse effects include:-

- Nausea, vomiting or diarrhoea
- Pruritis or skin rash
- Anaemia
- Peripheral neuropathy.

Other points to consider in the care and support of HIV/AIDS patients include:-

1. Provision of Psychological care by being available and answering questions whenever possible
2. Provision of a balance diet
3. Ensure basic hygiene

Encouraging patients with diarrhoea to take plenty fluid to prevent dehydration and to continue taking solid foods they can tolerate.

2. PREVENTION OF HIV TRANSMISSION

What one can do to prevent Infection?

1. Abstain from sex if you are not married.
2. Be faithful to one partner (one man, one wife, for life)
3. Use a condom each time you have sex (consistently use condoms)
4. Go for voluntary Counselling and attesting (VCT). VCT helps maintain health lifestyles among those who test positive and thus enhance positive living. It also serves as an entry point to prevention and to care and support interventions for people living with HIV/AIDS.

Enables access to:

- ART Services
- TB services
- PMTCT services
- Family planning and other reproductive health services.
- Home Based Care and Support group.

ACTIVITY: QUESTIONS FOR DISCUSSION

- What is the goal of ART?
- What are some of the side effects of antiretroviral drugs?
- How can HIV/AIDS be prevented?

Methods of teaching

- Lecture/discussion
- Role Play
- Group discussion

REFERENCES

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3. Ministry of Health/Central Board of Health (1999). **Background Projections Impacts and Interventions,** Lusaka, Zambia.
4. Ministry of Health/Central Board of Health (2004). **Pocket Size Treatment Guide for Frontline Health Workers,** Lusaka, Zambia.
5. SAMA Health and Medical Publishing Group (2005). Southern African Journal of HIV Medicine.

Appendix N

Orientation program for research assistants

Duration: 3 days

Aim of the program

To orient research assistants to the research process to familiarise them with the research project.

Objectives of the program

At the end of the orientation period learners should be able to:

- State the significance and the objectives of the study
- Outline the study design
- State the study population and the selection criteria
- Describe the data collection methods (Interview and Focus group discuss)
- Conduct an interview and Focus group discussion

Course content

- Introduction to research, objectives and significance of the study
- Research methodology

  - Design

  - Study population

  - Data collection methods (Interview and Focus group discussion)

- Administration of interview schedule (Practice/ role play)
- Focus group discussion (Practice/role play)
- Confidentiality and informed consent (Discussion/Practice)

Methods of teaching

Lecture/Discussion

Group discussion

Role play