

CHAPTER IV

Data Exercise

A rapid assessment on the perceptions of doctors and nurses to manage HIV/AIDS patients at the National Referral Hospital, Thimphu, Bhutan.

4.1 Introduction

Globally AIDS related stigma among the health professionals have lead to discrimination of the HIV/AIDS patients in hospitals. This has been found in association with the level of knowledge on HIV/AIDS, type of attitude towards HIV/AIDS patients, and the degree of safe practice on infection control in hospitals. Further perceptions on factors like fatality, incurable nature, contagiousness, immorality, upsetting condition of HIV/AIDS, affects stigma related to AIDS among the health professionals. To what extent these causes and factors are present among the health professionals would indicate the magnitude and the focus that would be required in dealing with AIDS related stigma. For these reasons, an assessment is necessary to understand the nature of AIDS related stigma among the doctors and nurses of National Referral Hospital (NRH), Thimphu, and the possible options to address stigma aspects.

4.2 Rationale

The purpose of the rapid assessment is to explore the perceptions on HIV/AIDS management among the doctors and nurses of NRH, Thimphu, and assess the nature of the AIDS related stigma and the factors contributing to it. This would enable me in identifying common concerns among all doctors and nurses in the management of HIV/AIDS patients. Further, this would help to understand AIDS related stigma and its factors from the Bhutanese health professionals viewpoint. And at a later stage, enable to develop an appropriate intervention to address stigma aspects related to AIDS among the doctors and nurses such as increasing the willingness to manage HIV/AIDS patients in the hospital.

4.3 Research Questions

- 1) What is the level of knowledge on HIV/AIDS, among the doctors and nurses at NRH, Thimphu ?
- 2) What is the attitude, including willingness to manage HIV/AIDS patients among the doctors and nurses at NRH, Thimphu ?
- 3) What is the practice on universal precautions among the doctors and nurses at NRH, Thimphu ?

- 4) Could PAR be an appropriate strategy to address the problem ?

4.4 Objectives

4.4.1 General Objective

To explore the situation in the NRH, Thimphu in terms of AIDS related stigma aspects among doctors and nurses that affect patient care.

4.4.2 Specific Objectives

- a) To conduct KAP survey to assess level of knowledge on HIV/AIDS, attitude towards HIV/AIDS patients and practice of infection control of the doctors and nurses of the NRH, Thimphu, Bhutan.
- b) To explore interest among doctors and nurses to participate in problem solving.
- c) To familiarize with the different research tools and techniques and their applications.

4.5 Method

Rapid appraisal (Annett H, Rifkin S., 1990) used as the first step to involving the doctors and nurses of NRH in exploring the nature and magnitude of the AIDS related stigma aspects, and its major causes by applying quantitative and qualitative approaches.

4.6 Instrumentation

Workshop

One day workshop with the doctors and nurses of NRH, Thimphu to explore their interest to participate and to obtain their support and collaboration for the study.

Interviews

To collect quantitative data through a self-administered questionnaire. The self-administered questionnaire contained closed questions on knowledge on HIV/AIDS, attitude about the disease, and practice on HIV/AIDS prevention and information on socio-demographic characteristics, with the focus on health professionals.

Focus Group Discussions

To collect qualitative data through focus group discussion with a semi structured framework. I conducted 2 focus group discussions of ten respondents each on separate occasions. One group comprised of medical doctors and the other group of nurses. The doctors group comprised of five specialized doctors and five general duty medical officers. The nurses group comprised of five senior nurses and five junior nurses. The focus group discussions were to define the nature of the unwillingness to manage HIV/AIDS patients and causes.

4.7 Sampling

4.7.1 Sites

At the beginning, I wanted to conduct this study involving 10 district hospitals including the National Referral Hospital in Thimphu, Bhutan. But at a later stage I realized that this would not be feasible within the given time. Doctors and nurses at NRH are mobile in terms of attending workshops and meetings. Therefore I decided to focus only at the NRH, which serves as a district and also as a regional hospital. And the doctors and nurses are available more on a regular basis at the NRH. These doctors and nurses have been exposed to a few HIV/AIDS cases in terms of managing patients when hospitalized at the NRH. And moreover, here at the NRH, most of the doctors and all

the nurses undergo their hospital attachment training before the start of their regular new posting.

4.7.2 Selection of participants

A purposive sampling technique was used to select the participants. In choosing the interviewees, I chose practicing doctors and nurses who manage patients as participants. This was done mainly to focus on the population that are involved directly in providing care.

4.7.3 Sample size

For the self-administered questionnaire, all the 23 practicing doctors, 87 nurses, 6 Assistant Clinical Officers and 5 others of the NRH, on duty were included which totaled to 121 at the time of the study. In the final analysis on knowledge, attitude and practice of HIV/AIDS, the six ACOs and the five others were included because they perform similar duties as the doctors and nurses in regard to managing the patients at the NRH. For the two focus group discussions, one had ten doctors of whom, 5 were specialists and 5 general duty medical officers, and the other group had 10 nurses, of which 5 were senior, and 5 were junior nurses. All focus group participants joined on a voluntary basis.

4.8 Records

Self-administered questionnaires were developed in four sections, socio-demographic characteristic, knowledge, attitude and practice. The questionnaires were strictly confidential and anonymous.

For focus group discussions, following aids were used : (a) a questionnaire guide (b) in a comment sheet (c) a tape recorder, and (d) a video tape.

4.9 Analysis

4.9.1 Quantitative Analysis

A simple descriptive analysis was done of the socio-demographic and the KAP survey data collected through self administered questionnaires conducted among the doctors and the nurses of the NRH, Thimphu, Bhutan. The data were edited and coded, by using SPSS software, a simple statistical analysis for frequency, mean calculations on different key variables and cross-tabulations were carried out.

4.9.2 Qualitative Analysis

A descriptive analysis of the data was done of the different components of the FGD findings. Classifying and categorizing data from notes and records were done in the process of the analysis to relate the different factors and issues to the problem.

4.10 Operation plan for data exercise

The data exercise for my study was conducted among the doctors and the nurses of the National Referral Hospital (NRH) at Thimphu Bhutan in the months of September and October, 2000.

1. A general meeting was held with the doctors and nurses and relevant stakeholders of the NRH on the 14th of September, 2000 at the Royal Institute of Health Sciences auditorium. All 121 KAP respondents attended the meeting. There were no KAP issues on HIV/AIDS discussed during the meeting except copies of research findings of the occupational risk of infection among the health care professionals from CDC Atlanta were distributed for information. The purpose of the meeting was to come to a formal general consensus to address this issue and explore willingness to participate in the process. The meeting was also used as a base to seek the department and the ministry's approval for this study. The doctors and the

nurses of the NRH agreed on the need to focus on AIDS related stigma and the need to address it urgently. They also expressed their willingness to participate in this study.

2. Proposal submission to the Department and Ministry done on 15/9/2000. (A copy of the letter, *Appendix F*).
3. Departmental clearance and approval given for the study on 18/9/2000. (A copy of the letter, *Appendix G*).
4. Draft questionnaire made from 16-21/9/2000.
5. Pre-test of questionnaires – 22 September 2000. After the pre-test of questionnaires, a number of modifications had to be made to avoid duplication and collection of unnecessary information by deleting and rephrasing some of the questions to improve reliability.
6. Finalised draft of questionnaires on 23-25/9/2000. (Questionnaires, *Appendix H*).
7. Draft for interview questions framework Focus Group Discussion (FGD)– 26 & 27/9/2000. (Copy of guidelines, *Appendix I*)

8. Started data collection on 27/9/2000.
9. Arranging for the FGD – 3 to 7/10/2000.
10. Data entry and collation of the interviews 8-15/10/2000.
11. Return to Bangkok on 16/10/2000.

4.11 Findings

4.11.1 Quantitative analysis of the self-administered questionnaires

The following definitions were applied for the analysis using the SPSS software package.

Socio-demographic

Socio-demographic data are defined as data regarding age, gender, marital status, education level, place of work, work experience and monthly income collected for the analysis with the KAP survey to assess knowledge, attitude and practice on HIV/AIDS and explore willingness to manage the HIV/AIDS cases by the health care professionals of JDWNRH, Thimphu, Bhutan.

Knowledge

The section consists of 9 questions with the 9th question having 8 sub questions on knowledge grouped in two clusters as 'routes of transmission' and 'universal precaution' on HIV/AIDS. There are three key questions – two questions (K7 & 8) on 'Routes of transmission' and one question (K1) on 'universal precaution'. The key questions cross-tabulated with the socio-demographic variables to assess the level of knowledge.

For the purpose of the analysis, score '1' (one) for a correct answer and '0' (Zero) for a 'wrong' and 'don't know' answers has been applied. The data on knowledge were analysed for three categories : firstly for all 121 respondents, secondly for doctors only, and finally for nurses only.

Attitude

This section is concerned with health professionals' attitude towards HIV/AIDS patient management in the hospital. There are 9 questions in this section. There are two key questions, one question (A1) and another question (A6). The key questions has been cross-tabulated with socio-demographic variables to assess the attitude of health professionals. Out of the nine questions, two questions No. 3 & 6 deal with a positive attitude and seven questions 1, 2, 4, 5, 7, 8 & 9 deal with a negative attitude.

Scoring are as follows :

For a positive statement '2' (two) scores for 'agree'; '1' (one) scores for 'undecided' and '0' (zero) scores for 'disagree'.

For negative statements '2' (two) scores for 'disagree'; '1' (one) score for 'undecided' and '0' (zero) scores for 'agree'.

In the final analysis, the 'undecided' group of respondents were put together with the negative statement.

Practice

In the section for practice, there are 11 questions concerned with universal precaution practices among health professionals in the hospital. The questions are grouped in 2 clusters namely 'self protection' and 'safe environment'. There are two key questions, one question (P2) for 'self protection' and another question (P6) for 'safe environment'.

Scores '2' (two) was given to 'yes always'; score '1' (one) was given to 'yes sometimes' and score '0' (zero) was given to 'no' answer.

For the purpose of the study, 'yes always' was defined as 'safe practice' and 'yes sometimes' and 'no' were defined as 'unsafe practices'.

Socio-demographic characteristics – (Refer to table 2)

Table 2

Number and Percentage of respondents by demographic variables			
Socio-demographic variables		Number	Percent
Gender	Male	37	30.6%
	Female	84	69.4%
Age (Years)	30 or less years	65	53.7%
	31 to 40 years	34	28.1%
	41 to 50 years	16	13.2%
	More than 50 years	6	5.0%
Marital status	Single	28	23.1%
	Married	93	76.9%
Education Level	MBBS/MD	15	12.4%
	Post Graduate	8	6.6%
	BSc. Nursing	2	1.7%
	Diploma Nursing	8	6.6%
	GNM	37	30.6%
	ANM	14	11.6%
	ANM	26	21.5%
	ACO	6	5.0%
Others	5	4.1%	
Place of Work	Surgery	39	32.2%
	Medicine	26	21.5%
	Gynae/Obs.	16	13.2%
	Paediatrics	9	7.5%
	General OPD/Ward	19	15.7%
	ENT/Eye	5	4.1%
	Para Medical Services	7	5.8%
Experience	1 to 5 years	48	39.7%
	6 to 10 years	26	21.5%
	11 to 20 years	29	24.0%
	More than 20 years	18	14.9%
Income per month	Less than 6000 Ngultrums	70	57.9%
	6001 to 12000 Ngultrums	35	28.9%
	12001 to 18000 Ngultrums	6	5.0%
	18001 to 24000 Ngultrums	1	0.8%
	More than 24000 Ngultrums	9	7.4%
Total		121	

Of the 121 respondents, of which 37 were males and 84 were females, the ratio of male to female was 1:2. Of these, 23 were medical doctors, 87 were nurses, 6 were assistant clinical officers and the rest 5, others. 53.7% of them are 30 years and below and 39.7% of the total respondents have less than 5 years of work experience. And most of the respondents belong to the Surgical work place group followed by Medicine, General OPD Ward, Gynae Obstetrics, Paediatrics, Para Medical Services and ENT/Eye. *(Refer to table 2), (Refer Annexures H & J).*

Table 3 Knowledge (Refer to table 3, 4 & 5)

Knowledge about HIV/AIDS by item: (All respondents)					
Statement	True/ False	Correct Answer		Wrong & Don't know	
		No.	%	No.	%
Universal Precaution :					
1. *Infection control measures for hepatitis B provides adequate protection against transmission of HIV. (K1)	T	89	73.6%	32	26.4%
2. Use of sterilized equipment during surgical procedures prevents the risk of spread of HIV infection.	T	114	94.2%	7	5.8%
3. Immediate disposal of materials used during different procedures prevent the spread of HIV infection.	T	108	89.3%	13	10.7%
4. A positive antibody test means that a person has been exposed to the HIV.	T	81	66.9%	40	33.1%
Routes of HIV/AIDS Transmission :					
5. HIV/AIDS can spread from HIV+ mother to her unborn baby by vertical transmission.	T	111	91.7%	10	8.3%
6. HIV/AIDS can spread from HIV+ mother to her baby through breast feeding.	T	59	48.8%	62	51.2%
7. *HIV/AIDS can spread through accidental needle pricks and wounds by surgical instruments. (K7)	T	116	95.9%	5	4.1%
8. *HIV/AIDS can spread after auto vehicle accident, when open wound blood, from HIV+ person contaminate an open wound of other person. (K8)	T	116	95.9%	5	4.1%
9a. Sexual Intercourse	T	118	97.5%	3	2.5%
9b. IV injection by drug addict	T	113	93.4%	8	6.6%
9c. Blood Transfusion	T	117	96.7%	4	3.3%
9d. Transplacental	T	117	96.7%	4	3.3%
9e. Using the same toilet	F	112	92.6%	9	7.4%
9f. Insect bite	F	92	76.0%	29	24.0%
9g. Living in same house	F	114	94.2%	7	5.8%
9h. Eating from same plate	F	105	86.8%	16	13.2%

*(Key questions)

Table 4

Knowledge about HIV/AIDS by item:(Doctors)					
Statement	True/ False	Correct Answer		Wrong & Don't know	
		No.	%	No.	%
Universal Precaution :					
1. *Infection control measures for hepatitis B provides adequate protection against transmission of HIV. (K1)	T	19	82.6%	4	17.4%
2. Use of sterilized equipment during surgical procedures prevents the risk of spread of HIV infection.	T	20	87.0%	3	13.0%
3. Immediate disposal of materials used during different procedures prevent the spread of HIV infection.	T	21	91.3%	2	8.7%
4. A positive antibody test means that a person has been exposed to the HIV.	T	22	95.7%	1	4.3%
Routes of HIV/AIDS Transmission :					
5. HIV/AIDS can spread from HIV+ mother to her unborn baby by vertical transmission.	T	21	91.3%	2	8.7%
6. HIV/AIDS can spread from HIV+ mother to her baby through breast feeding.	T	14	60.9%	9	39.1%
7. *HIV/AIDS can spread through accidental needle pricks and wounds by surgical instruments. (K7)	T	23	100.0%	0	0.0%
8. *HIV/AIDS can spread after auto vehicle accident, when open wound blood, from HIV+ person contaminate an open wound of other person. (K8)	T	23	100%	0	0.0%
9a. Sexual Intercourse	T	23	100.0%	0	0.0%
9b. IV injection by drug addict	T	23	100.0%	0	0.0%
9c. Blood Transfusion	T	23	100.0%	0	0.0%
9d. Transplacental	T	23	100.0%	0	0.0%
9e. Using the same toilet	F	22	95.7%	1	4.3%
9f. Insect bite	F	21	91.3%	2	8.7%
9g. Living in same house	F	23	100.0%	0	0.0%
9h. Eating from same plate	F	22	95.7%	1	4.3%

* (Key questions)

Table 5

Knowledge about HIV/AIDS by item: (Nurses)					
Statement	True/ False	Correct Answer		Wrong & Don't know	
		No.	%	No.	%
Universal Precaution :					
1. *Infection control measures for hepatitis B provides adequate protection against transmission of HIV. (K1)	T	61	70.1%	26	29.9%
2. Use of sterilized equipment during surgical procedures prevents the risk of spread of HIV infection.	T	83	95.4%	4	4.6%
3. Immediate disposal of materials used during different procedures prevent the spread of HIV infection.	T	77	88.5%	10	11.5%
4. A positive antibody test means that a person has been exposed to the HIV.	T	51	58.6%	36	41.4%
Routes of HIV/AIDS Transmission :					
5. HIV/AIDS can spread from HIV+ mother to her unborn baby by vertical transmission.	T	80	92.0%	7	8.0%
6. HIV/AIDS can spread from HIV+ mother to her baby through breast feeding.	T	39	44.8%	48	55.2%
7. *HIV/AIDS can spread through accidental needle pricks and wounds by surgical instruments. (K7)	T	82	94.3%	5	5.7%
8. *HIV/AIDS can spread after auto vehicle accident, when open wound blood, from HIV+ person contaminate an open wound of other person. (K8)	T	82	94.3%	5	5.7%
9a. Sexual Intercourse	T	84	96.6%	3	3.4%
9b. IV injection by drug addict	T	79	90.8%	8	9.2%
9c. Blood Transfusion	T	84	96.6%	3	3.4%
9d. Transplacental	T	83	95.4%	4	4.6%
9e. Using the same toilet	F	79	90.8%	8	9.2%
9f. Insect bite	F	61	70.1%	26	29.9%
9g. Living in same house	F	80	92.0%	7	8.0%
9h. Eating from same plate	F	72	82.8%	15	17.2%

* (Key questions)

Among 121 respondents, on the knowledge of 'universal precaution' cluster, correct answers ranged from 66.9% up to 94.2%. (*Refer tables 3,4 & 5*). The key question for this section has been answered correctly by 73.6% of the total respondents. (*Refer table 3*).

And for the 'routes of transmission', among 121 respondents correct answers ranged from 48.8% to 97.5%. (*Refer tables 3,4 & 5*). The key question of this section was answered correctly by 95.9% of all respondents. (*Refer table 3*).

Cross-tabulation of key questions

Key questions (K7, K1 & K8) were cross-tabulated with the socio-demographic variables of 'level of education', 'work place' and 'qualification' (Refer tables 6, 7 8, 9, 10, 11, 12, 13 & 14).

Table 6 **Level of Education *K7 Cross-tabulation**

		K7		
		Right	Wrong	Total
Level of Education	MBBS/MD	15		15
	Postgraduate	8		8
	BSc. Nursing	1	1	2
	Diploma Nursing	7	1	8
	GNM	36	1	37
	ANM	14		14
	AN	24	2	26
	ACO	6		6
	Others	5		5
Total		116	5	121

Table 7 **Level of Education *K1 Cross-tabulation**

		K1			Total
		Right	Wrong	Don't know	
Level of Education	MBBS/MD	14		1	15
	Postgraduate	5	2	1	8
	BSc. Nursing	2			2
	Diploma Nursing	6	2		8
	GNM	22	9	6	37
	ANM	12	2		14
	AN	19	2	5	26
	ACO	4	1	1	6
	Others	5			5
Total		89	18	14	121

Table 8 **Level of Education *K8 Cross-tabulation**

		K8			Total
		Right	Wrong	Don't know	
Level of Education	MBBS/MD	15			15
	Postgraduate	8			8
	BSc. Nursing	2			2
	Diploma Nursing	7		1	8
	GNM	36	1		37
	ANM	14			14
	AN	23	2	1	26
	ACO	6			6
	Others	5			5
Total		116	3	2	121

Table 9 **Work Place *K7 Crosstabulation**

		K7		
		Right	Wrong	Total
Work Place	Surgery	13		13
	Medicine	7		7
	Gynae./Obs.	11		11
	Paediatrics	7	2	9
	Others	78	3	81
Total		116	5	121

Table 10 **Work Place *K1 Cross-tabulation**

		K1			Total
		Right	Wrong	Don't know	
Work Place	Surgery	10	1	2	13
	Medicine	6	1		7
	Gynae./Obs.	8	2	1	11
	Paediatrics	8	1		9
	Others	57	13	11	81
Total		89	18	14	121

Table 11 **Work Place *K8 Cross-tabulation**

		K8			Total
		Right	Wrong	Don't know	
Work Place	Surgery	13			13
	Medicine	6	1		7
	Gynae./Obs.	11			11
	Paediatrics	8	1		9
	Others	78	1	2	81
Total		116	3	2	121

Table 12 **Qualification *K7 Cross-tabulation**

		K7		
		Right	Wrong	Total
Qualification	Doctor	23		23
	Nurse	82	5	87
	ACO & Others	11		11
Total		116	5	121

Table 13 **Qualification *K1 Crosstabulation**

		K1			Total
		Right	Wrong	Don't know	
Qualification	Doctor	19	2	2	23
	Nurse	61	15	11	87
	ACO & Others	9	1	1	11
Total		89	18	14	121

Table 14 **Qualification *K8 Crosstabulation**

		K8			Total
		Right	Wrong	Don't know	
Qualification	Doctor	23			23
	Nurse	82	3	2	87
	ACO & Others	11			11
Total		116	3	2	121

Findings of cross tabulations for key questions on knowledge:

- ❖ The 'level of education', reveals that a significant number of respondents giving 'wrong answers' and 'don't know' are from the incountry trained group of nurses. (Refer tables 6,7 & 8).

- ❖ For the variable 'work place', a significant number of respondents were from the category 'others'. The category 'others' needs to be defined. *(Refer Annexure J), (Refer tables 9, 10 & 11).*

- ❖ For the variable 'qualification', cross tabulation showed a significant number of respondents from the nursing group who gave a 'wrong answer' and 'don't know' response. *(Refer tables 12, 13, & 14).*

Table 15 Attitude; (refer to tables 15,16 & 17)

Attitude towards HIV/AIDS by items: (All respondents)							
Statement	Positive/ Negative	Agree		Undecided		Disagree	
		No.	%	No.	%	No.	%
1. *I would dislike treating the HIV positive patients in my hospital. (A1)	Neg	7	5.8%	7	5.8%	107	88.4%
2. AIDS patients should be treated in a separate and specialized hospital.	Neg	65	53.7%	13	10.7%	43	35.5%
3. It is moral obligation that doctors and nurses should accept and treat the AIDS patients in the same, equal, ethical and practical manner as they treat any other patient.	Pos	11	9.1%	2	1.7%	108	89.3%
4. A health care worker should be terminated from service if she or he refuses to care for an HIV positive patient.	Neg	32	26.4%	29	24.0%	60	49.6%
5. I have more fear of AIDS than of any other disease.	Neg	75	62.0%	7	5.8%	39	32.2%
6. *Surgeons should operate on AIDS/HIV+ patients. (A6)	Pos	29	24.0%	22	18.2%	70	57.9%
7. Health care professionals should have the right to refuse in taking care of HIV/AIDS patients.	Neg	24	19.8%	10	8.3%	87	71.9%
8. All health care workers should be informed that the patient is HIV+.	Neg	91	75.2%	6	5.0%	24	19.8%
9. All patients coming to hospital should be tested for HIV antibody.	Neg	51	42.1%	18	14.9%	52	43.0%

*(Key questions)

Table 16

Attitude towards HIV/AIDS by items: (Doctors)							
Statement	Positive/ Negative	Agree		Undecided		Disagree	
		No.	%	No.	%	No.	%
1. *I would dislike treating the HIV positive patients in my hospital. (A1)	Neg	1	4.3%	3	13.0%	19	82.6%
2. AIDS patients should be treated in a separate and specialized hospital.	Neg	8	34.8%	1	4.3%	14	60.9%
3. It is moral obligation that doctors and nurses should accept and treat the AIDS patients in the same, equal, ethical and practical manner as they treat any other patient.	Pos	1	4.3%	0	0.0%	22	95.7%
4. A health care worker should be terminated from service if she or he refuses to care for an HIV positive patient.	Neg	6	26.1%	7	30.4%	10	43.5%
5. I have more fear of AIDS than of any other disease.	Neg	12	52.2%	0	0.0%	11	47.8%
6. *Surgeons should operate on AIDS/HIV+ patients. (A6)	Pos	4	17.4%	1	4.3%	18	78.3%
7. Health care professionals should have the right to refuse in taking care of HIV/AIDS patients.	Neg	3	13.0%	2	8.7%	18	78.3%
8. All health care workers should be informed that the patient is HIV+.	Neg	16	69.6%	0	0.0%	7	30.4%
9. All patients coming to hospital should be tested for HIV antibody.	Neg	6	26.1%	1	4.3%	16	69.6%

* (Key questions)

Table 17

Attitude towards HIV/AIDS by items: (Nurses)							
Statement	Positive/ Negative	Agree		Undecided		Disagree	
		No.	%	No.	%	No.	%
1. *I would dislike treating the HIV positive patients in my hospital. (A1)	Neg	5	5.7%	3	3.4%	79	90.8%
2. AIDS patients should be treated in a separate and specialized hospital.	Neg	53	60.9%	11	12.6%	23	26.4%
3. It is moral obligation that doctors and nurses should accept and treat the AIDS patients in the same, equal, ethical and practical manner as they treat any other patient.	Pos	8	9.2%	2	2.3%	77	88.5%
4. A health care worker should be terminated from service if she or he refuses to care for an HIV positive patient.	Neg	22	25.3%	20	23.0%	45	51.7%
5. I have more fear of AIDS than of any other disease.	Neg	58	66.7%	7	8.0%	22	25.3%
6. *Surgeons should operate on AIDS/HIV+ patients. (A6)	Pos	22	25.3%	19	21.8%	46	52.9%
7. Health care professionals should have the right to refuse in taking care of HIV/AIDS patients.	Neg	18	20.7%	7	8.0%	62	71.3%
8. All health care workers should be informed that the patient is HIV+.	Neg	70	80.5%	4	4.6%	13	14.9%
9. All patients coming to hospital should be tested for HIV antibody.	Neg	43	49.4%	17	19.5%	27	31.0%

*(Key questions)

Of the 121 respondents, key question for the 'attitude' question (A1) showed that 88.4% had a 'positive attitude'.

For the key question (A6), 57.9% of all the respondents had a 'negative attitude'. However, for question no. 7 had 71.9% 'positive attitude' which contradicted the key question's outcome. And on further examination of the key question (A6), there was some ambiguity, for which the question needed to be re-phrased for reliability in future re-survey purpose. (*Refer Annexure H*).

Cross-tabulation of key questions

Key questions (A1 & A6) cross-tabulated with the socio-demographic variables 'level of education', 'work place' and 'qualification'.

Table 18 **Level of Education *A1 Cross-tabulation**

		A1			Total
		Negative Attitude	Undecided	Positive Attitude	
Level of Education	MBBS/MD	1	3	11	15
	Postgraduate			8	8
	BSc. Nursing			2	2
	Diploma Nursing	1		7	8
	GNM	2		35	37
	ANM	2	1	11	14
	AN		2	24	26
	ACO	1		5	6
	Others		1	4	5
Total		7	7	107	121

Table 19 **Level of Education *A6 Crosstabulation**

		A6			Total
		Negative Attitude	Undecided	Positive Attitude	
Level of Education	MBBS/MD	2	1	12	15
	Postgraduate	2		6	8
	BSc. Nursing			2	2
	Diploma Nursing	2	2	4	8
	GNM	10	11	16	37
	ANM	2		12	14
	AN	8	6	12	26
	ACO	2	2	2	6
	Others	1		4	5
Total		29	22	70	121

Table 20 **Work Place *A1 Crosstabulation**

		A1			Total
		Negative Attitude	Undecided	Positive Attitude	
Work Place	Surgery		1	12	13
	Medicine	2		5	7
	Gynae./Obs.			11	11
	Paediatrics			9	9
	Others	5	6	70	81
Total		7	7	107	121

Table 21 **Work Place *A6 Crosstabulation**

		A6			Total
		Negative Attitude	Undecided	Positive Attitude	
Work Place	Surgery	2	1	10	13
	Medicine	5	2		7
	Gynae./Obs.	1		10	11
	Paediatrics	2	1	6	9
	Others	19	18	44	81
Total		29	22	70	121

Table 22 **Qualification *A1 Crosstabulation**

		A1			Total
		Negative Attitude	Undecided	Positive Attitude	
Qualification	Doctor	1	3	19	23
	Nurse	5	3	79	87
	ACO & Others	1	1	9	11
Total		7	7	107	121

Table 23 **Qualification *A6 Crosstabulation**

		A6			Total
		Negative Attitude	Undecided	Positive Attitude	
Qualification	Doctor	4	1	18	23
	Nurse	22	19	46	87
	ACO & Others	3	2	6	11
Total		29	22	70	121

Cross-tabulation on the key questions of 'attitude' section :

- ❖ The 'level of education', reveals that a significant number of respondents with a 'negative attitude' or 'undecided' were from the nursing category. *(Refer tables 18 & 19).*

- ❖ For the variable 'work place', a significant number was from the category 'others' who had a 'negative attitude' or 'undecided' response. *(Refer tables 20 & 21).*

- ❖ For the variable 'qualification', a significant number of respondents with a 'negative attitude' or 'undecided' response were also from the nursing category. *(Refer tables 22 & 23).*

Table 24

Experience in taking care of HIV/AIDS patients (All Respondents)				
	Yes		No	
	Number	%	Number	%
Have you ever experienced in taking care of AIDS/HIV patient.	47	38.8%	74	61.2%
Experience in taking care of HIV/AIDS patients (Doctors Only)				
	Yes		No	
	Number	%	Number	%
Have you ever experienced in taking care of AIDS/HIV patient.	13	56.5%	10	43.5%
Experience in taking care of HIV/AIDS patients (Nurses Only)				
	Yes		No	
	Number	%	Number	%
Have you ever experienced in taking care of AIDS/HIV patient.	32	36.8%	55	63.2%

A question to estimate how many had experienced taking care of HIV/AIDS patients showed, of the 121 respondents, 38.8% had experienced managing, and 61.2% had not experienced managing HIV/AIDS patients. Two groups were analyzed separately, which showed that among doctors 56.5% had managed and 43.5% had not managed; among nurses 36.8% had managed and 63.2% had not managed. (Refer table 24).

Table 25 Practice; (Refer to tables 25,26 & 27)

Practice by Item: (All respondents)						
Statement	Yes Always		Yes Sometimes		No.	
	No.	%	No.	%	No.	%
Self Protection :						
1. Do you wash and scrub your hands with clean water and detergent before and after every procedure.	89	74%	32	26%	0	0%
2. *Do you wear gloves while doing invasive procedures on patients. (P2)	102	84%	19	16%	0	0%
3. Do you wear protective attire while treating patients.	41	34%	60	50%	20	17%
Safe Environment :						
4. Do you change gloves after each patient.	105	87%	16	13%	0	0%
5. Do you use sterilized equipment in treating patients.	114	94%	6	5%	1	1%
6. * Do you dispose off blood and blood-contaminated products of patients safely. (P6)	117	97%	4	3%	0	0%
7. Do you use disposable items when possible.	86	71%	31	26%	4	3%
8. Do you dispose off needles used for injections immediately and properly.	115	95%	6	5%	0	0%
9. Do you discard contaminated materials in plastic bags to minimize human contact.	114	94%	5	4%	2	2%
10. Do you arrange to disinfect the operating room everyday.	63	52%	42	35%	16	13%
11. Do you decontaminate the contaminated instruments everyday.	100	83%	18	15%	3	2%

* (Key questions)

Table 26

Practice by Item: (Doctors)						
Statement	Yes Always		Yes Sometimes		No.	
	No.	%	No.	%	No.	%
Self Protection :						
1. Do you wash and scrub your hands with clean water and detergent before and after every procedure.	17	74%	6	26%	0	0%
2. *Do you wear gloves while doing invasive procedures on patients. (P2)	22	96%	1	4%	0	0%
3. Do you wear protective attire while treating patients.	6	26%	11	48%	6	26%
Safe Environment :						
4. Do you change gloves after each patient.	20	87%	3	13%	0	0%
5. Do you use sterilized equipment in treating patients.	21	91%	2	9%	0	0%
6. *Do you dispose off blood and blood-contaminated products of patients safely. (P6)	23	100%	0	0%	0	0%
7. Do you use disposable items when possible.	18	78%	4	17%	1	4%
8. Do you dispose off needles used for injections immediately and properly.	21	91%	2	9%	0	0%
9. Do you discard contaminated materials in plastic bags to minimize human contact.	18	78%	4	17%	1	4%
10. Do you arrange to disinfect the operating room everyday.	11	48%	8	35%	4	17%
11. Do you decontaminate the contaminated instruments everyday.	19	83%	4	17%	0	0%

*(Key questions)

Table 27

Practice by Item: (Nurses)						
Statement	Yes Always		Yes Sometimes		No	
	No.	%	No.	%	No.	%
Self Protection :						
1. Do you wash and scrub your hands with clean water and detergent before and after every procedure.	66	76%	21	24%	0	0%
2. * Do you wear gloves while doing invasive procedures on patients. (P2)	72	83%	15	17%	0	0%
3. Do you wear protective attire while treating patients.	30	34%	44	51%	13	15%
Safe Environment :						
4. Do you change gloves after each patient.	75	86%	12	14%	0	0%
5. Do you use sterilized equipment in treating patients.	83	95%	3	3%	1	1%
6. *Do you dispose off blood and blood-contaminated products of patients safely. (P6)	85	98%	2	2%	0	0%
7. Do you use disposable items when possible.	62	71%	23	26%	2	2%
8. Do you dispose off needles used for injections immediately and properly.	84	97%	3	3%	0	0%
9. Do you discard contaminated materials in plastic bags to minimize human contact.	85	98%	1	1%	1	1%
10. Do you arrange to disinfect the operating room everyday.	49	56%	28	32%	10	11%
11. Do you decontaminate the contaminated instruments everyday.	75	86%	10	11%	2	2%

* (Key questions)

Of the 121 respondents on the section of 'universal precaution' practices, the cluster on 'self protection' showed a range from 34% up to 84% on 'safe practices'. The key question (P2) yielded 84% as 'safe practices'. (Refer tables 25, 26 & 27).

The cluster on 'safe environment' showed a range from 52% to 97% on 'safe practices'. The key question (P6) yielded 97% as 'safe practices'. ((Refer tables 25, 26 & 27).

Cross-tabulation of key questions

Key questions (P2 & P6) cross-tabulated with the socio-demographic variables 'level of education', 'work place' and 'qualification'.

Table 28 Level of Education *P2 Cross-tabulation

		P2		
		Unsafe	Safe	Total
Level of Education	MBBS/MD	1	14	15
	Postgraduate		8	8
	BSc. Nursing		2	2
	Diploma Nursing	1	7	8
	GNM	7	30	37
	ANM	4	10	14
	AN	3	23	26
	ACO	2	4	6
	Others	1	4	5
Total		19	102	121

Table 29 **Level of Education *P6 Cross-tabulation**

		P6		
		Unsafe	Safe	Total
Level of Education	MBBS/MD		15	15
	Postgraduate		8	8
	BSc. Nursing	1	1	2
	Diploma Nursing		8	8
	GNM	1	36	37
	ANM		14	14
	AN		26	26
	ACO	1	5	6
	Others	1	4	5
Total		4	117	121

Table 30 **Work Place *P2 Crosstabulation**

		P2		
		Unsafe	Safe	Total
Work Place	Surgery	2	11	13
	Medicine		7	7
	Gynae./Obs.	2	9	11
	Paediatrics	2	7	9
	Others	13	68	81
Total		19	102	121

Table 31 **Work Place *P6 Crosstabulation**

		P6		
		Unsafe	Safe	Total
Work Place	Surgery		13	13
	Medicine		7	7
	Gynae./Obs.		11	11
	Paediatrics	1	8	9
	Others	3	78	81
Total		4	117	121

Table 32 **Qualification *P2 Crosstabulation**

		P2		
		Unsafe	Safe	Total
Qualification	Doctor	1	22	23
	Nurse	15	72	87
	ACO & Others	3	8	11
Total		19	102	121

Table 33 **Qualification *P6 Crosstabulation**

		P6		
		Unsafe	Safe	Total
Qualification	Doctor		23	23
	Nurse	2	85	87
	ACO & Others	2	9	11
Total		4	117	121

Cross tabulations of the key questions on 'Practices' :

- ❖ The 'level of education', for 'unsafe practices', showed a significant number of respondents from the nursing category. (*Refer tables 28 & 29*).
- ❖ For the variable 'work place' tabulated with 'unsafe practices' a significant number of respondents are from the category 'others'. (*Refer tables 30 & 31*).
- ❖ For the variable 'qualification', a significant number of respondents for 'unsafe practices' are from the nursing category. (*Refer tables 32 & 33*).

4.11.2 Qualitative analysis

For both the 'focus group discussions' with the Bhutanese doctors and the nurses of the NRH, Thimphu, classification and categorizing tables were used to construct the findings to help in analyzing the data collected. This approach helped in understanding better and in drawing conclusions on AIDS related stigma aspects.

Focus group discussion

Report on interview

Two focus group discussions were held among 10 doctors and 10 nurses on 3 & 5th October 2000. The first group discussion was held among 10 doctors (*Refer table 34*) on 3rd October 2000 at the Royal Institute of Health Sciences. The interview was held using the semi structured interview guidelines given below:

- a) How would you feel in managing an HIV/AIDS case?
- b) Why would you feel that way?
- c) Would it affect you doing your duty?
- d) How would it affect?
- e) What could we do about it?

Most of the doctors expressed that they were not comfortable and to a certain extent afraid to manage HIV/AIDS cases. One of the doctor commented that “given the choice, I would not like to operate on an HIV/AIDS case”. And some others said that “if they knew about the HIV/AIDS status early, they would be willing to manage the case”. And most commented that “we feel we don’t know enough about the management of HIV/AIDS case that makes us less willing to manage HIV/AIDS cases. And also they said “we lack clear guidelines on universal precaution specific to the work place”. And

many commented that “we would like to see that the logistics like basic gloves should be adequately supplied”. Few commented that “every patient that needs a surgical procedure should be tested for HIV”. One of the doctors said that “during emergencies, it is not possible to practice universal precaution”. Some doctors said “we want to avoid the case if we can”. And most expressed “training should be offered to relevant people”. Almost all felt that something needs to be done about this problem and National AIDS Program should be responsible to plan to do something. All of them offered to cooperate and participate in whatever ways and means possible.

Table 34 Group 1 Doctors

Sno	Professional background
1.	Medical Specialist
2.	Ophthalmologist
3.	Orthopaedic Surgeon
4.	Dermatologist
5.	Dental Surgeon
6.	Medical Officer
7.	Medical Officer
8.	Medical Officer
9.	Medical Officer
10.	Deputy Superintendent cum Medical Officer

The second focus group discussion was held among 10 nurses (*Refer table 35*) on 5th October 2000 at the Royal Institute of Health Sciences. The same semi structured interview guideline was followed for the focus group discussion. Almost all of them were afraid to deal with HIV/AIDS case. The nurses commented that “we have to give

injections where we get needle prick injuries and there are no guidelines available as to what to do". Many commented that "in the ICU, we have to deal with patients bodily fluids and discharges and without much training on knowledge on HIV/AIDS, we feel afraid whether we could be risking infection ourselves". And some said that "to follow universal precaution has also become a problem because we run out of basic items like gloves in the wards". One of the nurses said that "I hear about AIDS as infectious and incurable, I have to be careful in dealing with the patients and feel reluctant to manage patients which I feel may be infected with HIV/AIDS". Many of them expressed that "we need clear specific universal precaution guidelines for our work place, simple to understand and follow in the day to day care". All of them commented "with few cases of HIV/AIDS in the country, we are concerned that the nursing professionals who deal with the patients most of the time, we would like to see that we are better equipped in terms of knowledge, training, guidelines and with adequate supplies especially on universal precaution". Few of the nurses said that "with the present working conditions, we are less willing and if possible want to avoid managing an HIV/AIDS case. Most of the nurses said that "National AIDS Program should look into this matter". On behalf of all the nurses, they said that they are willing to extend whatever help needed to address this concern.

Table 35 **Group 2 Nurses**

Sno	Professional background
1.	B. Sc. Nursing
2.	B. Sc. Nursing
3.	General Nurse Midwife (GNM)
4.	GNM
5.	GNM
6.	Auxiliary Nurse Midwife (ANM)
7.	Assistant Nurse (AN)
8.	AN
9.	Operation Theatre Nurse (OT Nurse)
10.	Nursing Matron

The findings and comments noted and recorded during the focus group discussions were also tabulated to help in forming a clearer understanding of the problem addressed as shown below:

a) How would you feel in managing an HIV/AIDS case?

	Uncomfortable	Afraid
Doctors	5	10
Nurses	5	10

Note : The respondents gave more than one answer

b) Why would you feel that way?

	Lack of Knowledge	Lack of Experience	Lack of Training	No cure	Fatal	Contagious	Having to manage before diagnosed
Doctors	10	10	10	8	10	10	5
Nurses	10	10	10	10	10	10	8

c) Would it affect you doing your duty?

	Yes	No	Don't know
Doctors	7	2	1
Nurses	8	-	2

d) How would it affect?

	Avoid to manage	Unwilling to manage	Refuse to manage
Doctors	3	5	2
Nurses	2	8	-

e) What could we do about it?

- ❖ Training on care of HIV/AIDS patients.
- ❖ Training/workshop on HIV/AIDS and its latest updates.

- ❖ Form infection control committee to monitor and review that the guidelines are followed and basic supplies are adequate and regular.
- ❖ To form a hospital based focal group where medical workers can share their concerns and get answers.
- ❖ Establish a referral system for HIV/AIDS cases from one hospital to another.

4.12 Discussion

4.12.1 Quantitative

The self-administered questionnaires on knowledge, attitude, and practice on HIV/AIDS conducted among doctors and nurses of NRH, Thimphu revealed that:

- ❖ Under the ‘socio-demographic’ section, there is a need to re-group the variable ‘place of work’. In all the three sections of the KAP survey during cross-tabulation with the ‘place of work’ variable, most of the respondents belonged to the category ‘others’. Therefore, the ‘others’ category need to be re-grouped and the variable ‘place of work’ re-

formulated for a future survey. The 'income' variable can be deleted as it does not serve any -purpose in this study. (*Refer Annexure H*).

- ❖ 26.4% of all respondents lack knowledge on the key question for 'universal precautions'. A cross-tabulation with the variable 'qualification' reveals that the majority of respondents with lack of knowledge on the key questions are nurses. This finding will affect the development of training interventions.

It is difficult to deal with a reliability on the responses of question no. 6 regarding breast feeding and HIV transmission because of conflicting focus among health policies, i.e. breast feeding in HIV management verses breast feeding as part of MCH program. Therefore, the question could be raised as how essential this information is in terms of willingness.

- ❖ In the analysis of the 'attitude' section, the key question (A1) showed 88.4% with 'positive attitude'. On further examination of the 11.6% 'negative attitude' responses by cross-tabulation showed that there is a need to give closer attention to the nursing category in terms of addressing the issue of 'negative attitude' on HIV/AIDS management.

There is also a need to re-formulate the key question no. 6 which is ambiguous revealing a conflicting outcome during analysis. The question could be answered either way and still be interpreted as a 'positive attitude'. (*Refer Annexure H*).

Also observing from the wide range of the percentages in the measurement of 'attitude of the respondents', it is difficult to measure 'attitude'. One may need to be careful in interpreting the outcomes of this section while planning to develop interventions for health professionals. There is a need to further explore the 'attitude' among health professionals more carefully.

The category of 'others' under the group 'work place' needs to be re-grouped for the purpose of future re-survey.

- ❖ 84% of respondents answered the key question on self protection in the universal precaution practice section correct. On further analysis by cross-tabulation for the 16% of the 'unsafe practices' of all the respondents, a significant number of the respondents were from the nursing category group. Therefore, there is a need to focus on the nursing group in terms of further exploration on possible areas of interventions to increase 'safe practices'.

On closer examination of question no. 3 which showed only 34% for 'safe practices', this question is ambiguous as it may either mean an additional gown to be worn on top of the uniform health professionals already use. There are also certain groups of people not requiring the use of protective attire like for example, pharmacists. This may cause the actual safe practices status to be different. Therefore, this question need to be reformulated for the purpose of future re-survey. (*Refer Annexure H*).

The category of 'others', under the group 'work place' needs to be re-grouped for future re-survey for proper analysis. (*Refer Annexure J*).

Overall there is a need to re-formulate the questions of each section for the purpose of proper analysis with relevant data to be collected during the re-survey. For exploring possible areas of interventions, it is important to focus on the nursing category at the JDWNRH, Thimphu.

4.12.2 Qualitative

Further, the 'Focus group discussions' among the doctors and nurses, showed that they were afraid and uncomfortable in managing HIV/AIDS patients possibly due to the following reasons :

- ❖ Lack of knowledge on HIV/AIDS.
- ❖ Inadequate experience and training in taking care of HIV/AIDS patients.
- ❖ Do not have clear guidelines on universal precaution at their work place.
- ❖ Irregular supplies of items for universal precaution like gloves.
- ❖ Do not have a focal point in the hospital to discuss their problems and their queries in managing HIV/AIDS patients and the associated problems.

This preliminary analysis of the primary data confirms the causal factors of the conceptual frame for AIDS related stigma. It indicates a further need to explore AIDS related stigma aspects and its interactions in the context of the NRH, Thimphu.

4.13 Lessons Learned

4.13.1 Quantitative – self administered questionnaire

- ❖ The questions should be constructed carefully to avoid collecting too much information. This may lead to confusing and

contradictory situations, and waste resources in terms of money and time.

- ❖ The questions should be pre-tested and appropriate changes made prior to using them.
- ❖ The instructions should be clear.
- ❖ The questionnaires should be administered at a time when the participants are relaxed.
- ❖ The researcher should be full time there until the questionnaire is completed to clarify any doubts.
- ❖ Attitude is very difficult to measure, one need to be very careful about drawing conclusions from only quantitative data analysis. It has to be supported by qualitative data to improve reliability.

4.13.2 Qualitative

- ❖ A good frame should be developed for the issues to be discussed.

- ❖ At the end of each day of the data collection, all the notes, events or remarks have to be summarized in order to identify any missed information that can be planned to collect the next day.
- ❖ One needs to be mentally prepared in the event the group discussions don't go the way it needs to be conducted, you need to stop and reconvene again after a break.
- ❖ The assistants should also be given some training before they assist you in your research to have a complete report or noting which may be significant and missed on that day.
- ❖ There should be a flexible time table to accommodate any last minute changes in the participants' schedule.
- ❖ The use of mind-maps can help to keep notes of the continuous process and help at a later stage to reconstruct responses to arrive at conclusions.

4.14 Conclusions

- ❖ In addressing ‘knowledge’ on HIV/AIDS regarding ‘routes of transmission’ and ‘universal precaution’, more consideration need to be given to the nursing category.
- ❖ ‘Attitude’ of health professionals in managing HIV/AIDS cases at NRH, Thimphu need to be further explored to develop a proper plan of action to address this issue.
- ❖ ‘Practice’ on ‘universal precaution’, similarly needs to be addressed giving more focus on the nursing category of NRH, Thimphu.
- ❖ The possible areas of interventions to address the AIDS related stigma aspects among the health professionals of NRH, Thimphu requires the participation of health care professionals themselves to develop an appropriate plan of action. Therefore, a participatory problem solving approach to address these issues at the NRH, Thimphu with the involvement of relevant stake holders would be appropriate and essential.
- ❖ The outcomes of the data exercise show more significance in certain groups like nurses, maybe because the majority of the study population are nurses. And less significance in certain groups maybe because the

questions are ambiguous. Therefore, there is a need to re-examine the questions and re-formulate them for the purpose of future surveys to improve reliability and validity. (*Refer Annexure H*).

Overall there is a need for a research reference point as a back up support, to clarify and assist on any matters related to the research activity conducted.

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