

ARE PHYSIOTHERAPY GRADUATES ADEQUATELY PREPARED TO MANAGE HIV/AIDS PATIENTS?

ABSTRACT: *Physiotherapy learners treat patients with Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS). There is no available published research on physiotherapy learners' opinions about how the South African physiotherapy undergraduate program is helping them cope with HIV/AIDS patients. This study determines whether the physiotherapy degree offered at South African Universities, adequately prepares learners to cope with HIV/AIDS patients. Differences in knowledge and attitudes of physiotherapy learners regarding HIV/AIDS, amongst universities is also explored. Two hundred and two senior physiotherapy learners from eight South African universities returned their questionnaires and 55% of these were viable for analysis. A large portion (79%) of learners indicated that the physiotherapy undergraduate degree did not adequately prepare them to cope with HIV/AIDS patients. Learners' knowledge and attitudes regarding HIV/AIDS differed significantly (41% to 73%) amongst universities. Formal lectures on HIV/AIDS significantly affected knowledge (0% -100%) but not attitude towards patients. The role of the physiotherapist, precautions, transmission modes, syndrome stages, counseling and clinical skills were considered critical in the management of HIV/AIDS patients.*

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INTRODUCTION

The impact of HIV/AIDS on healthcare has been recognized worldwide. HIV/AIDS is one of the few syndromes in which the expertise and participation of a wide range of healthcare professionals is required in almost all stages. Due to the complexity of physiological and psychological signs and symptoms, training is imperative on a continuous basis starting at the undergraduate level. The physiotherapist, similar to other health professionals, often is at risk not only for contracting the disease but also to bear the emotional burden of the dying patient, his family and friends (Puckree et al, 2002).

The incidence of HIV/AIDS in Southern Africa is higher than that anywhere else in the world (UNAIDS report 2003). The incidence is estimated at about 40% (Allen et al., 2000; Ateka, 2000). Therefore, the curricula to educate healthcare professionals must transform to reflect firstly the needs of the local communities and thereafter trends in the rest of the continent and world. The local or international literature contains few studies on the training of physiotherapy students to cope with

HIV/AIDS patients (Balogun et al., 1998). Some studies have looked at the effects of education on the knowledge, attitudes and willingness of physiotherapy students to provide services for patients with HIV/AIDS (Webber et al., 2001; Balogun et al., 1998; Johnson and Sim, 1998; Held, 1993; Wertz et al., 1987). The purpose of the present study was to determine from the learners perspective, whether the undergraduate curriculum in South African adequately prepares students to cope with managing HIV/AIDS patients. In addition the students' attitudes toward the HIV/AIDS patients was explored.

METHODS

All 2002 final year physiotherapy students at the eight physiotherapy schools in South Africa participated by voluntary informed consent. The total number of students who participated was 289. A validated questionnaire was used to elicit responses in four domains, namely; personal details, knowledge of HIV/AIDS, attitudes towards HIV/AIDS patients, details about their training in HIV/AIDS and recommendations for the future. Both open ended and closed

ended questions were included to optimize information obtained. Questionnaires were mailed to the student representative at each university for distribution, collection after 2 weeks and return mailing.

Data Analysis

The data from the questionnaires were reduced to percentages and analysed descriptively.

RESULTS AND DISCUSSION

The questionnaires from one university were lost in transit. Out of the 202 questionnaires from the remaining 7 universities that were returned only 160 (55%) were viable for analyses due to exclusion

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criteria and incompleteness of some of the questionnaires.

The majority of the respondents were female (85.0%) and less than 25 years of age (96.9%). Ninety four percent of the participants came into contact with HIV/AIDS patients during clinical practice and 51% of the learners had at least 20% of their patient load with HIV infection. Seventeen percent of the students stated that half of their case-loads were HIV infected. Despite this, these numbers may not truly reflect the actual number of HIV patients treated by physiotherapy learners because the patients' HIV status is not always indicated in the case notes.

Since the learners were frequently in contact with large numbers of HIV/AIDS patients, it became important to determine what they knew about HIV/AIDS. In order to manage patients and prevent contracting the disease during clinical practice, it is imperative to understand the modes of transmission and precautions to be taken (Jager, 1988, Coates, 1990, McClure, 1993). The majority (more than 70%) of the learners at all universities knew that unprotected sexual intercourse and blood transfusions could be responsible for transmission of HIV. Seventy percent of the students knew three of the five recognized modes of transmission of HIV. Only 45% of the students knew that used hypodermic needles could be a source of infection. Thirty seven percent of the learners knew that HIV could be transmitted from mother to child.

At least 90% of all the learners knew that gloves should be worn when assessing or treating HIV infected patients with oozing body fluids. Students from only four of the seven participating universities knew of the precautions to be taken when suctioning an HIV infected person. Only 15% of the learners knew the protocol to be followed after exposure to an infected person's body fluids.

Students from those universities, which conducted formal lectures and follow up supervision in the management of HIV/AIDS patients were more knowledgeable about HIV/AIDS. This finding is similar to that of Johnson and Sim (1998) who showed that knowledge about HIV/AIDS was strongly correlated

to the number of lectures that students received. Those students who received formal lectures and clinical exposure to HIV/AIDS patients did not necessarily exhibit positive attitudes to these patients similar to that reported by Johnson and Sim (1998). In fact the students who were ignorant about the syndrome also reported positive attitudes to patients suffering from HIV/AIDS. About 33% of the learners reported negative attitudes towards their HIV/AIDS patients.

Almost 50% of the participants believed that the degree curriculum did not prepare them adequately to cope with HIV/AIDS patients in the field. These same learners felt that the degree curriculum did not transform according to the health care needs of the country. Only 19% of the learners believed that the degree curriculum adequately prepared them to cope clinically with their HIV/AIDS patients.

Between 50 and 73% the learners from 5 of the 7 participating schools had a positive attitude towards HIV/AIDS patients.

Eighty nine percent of the respondents suggested that improved knowledge and supervised exposure to HIV/AIDS patients will improve ones' attitudes towards these patients. Eighty three percent of the learners suggested that more education on the modes of transmission of HIV/AIDS; precautions to be taken; role of physiotherapists in managing HIV/AIDS patients; clinical practice on handling of these patients together with information about building professional relationships with these patients and counselling skills must be included in the undergraduate curriculum.

CONCLUSION

The majority of the physiotherapy learners felt ill equipped to cope with HIV/AIDS patients. Suggestions for areas to be included in the curriculum include the role of the physiotherapist, precautions, modes of transmission, stages of the syndrome, counseling skills and general clinical skills. Based on the learners' opinions, discrepancies existed amongst the different universities with regard to cognitive, affective and psychomotor skills. The attitudes displayed in this study could be related to the lack of

adequate training. Since HIV is a highly transmittable disease, it is imperative that everyone who comes into contact with an infected patient is fully aware of the risks to themselves and takes all necessary precautions. At the same time the affective skills are necessary to make the patient as comfortable and cooperative as possible and the therapist as patient friendly as possible. This study shows a need for more introspection and transformation by physiotherapy educators to make learners more comfortable in the clinical environment. A further study is required to determine to what extent HIV/AIDS is covered in the undergraduate curriculum at South African Universities and the role of the Health Professions Council in curriculum transformation.

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A STUDY TO DETERMINE WHETHER THE PHYSIOTHERAPY DEGREE IN SOUTH AFRICA ADEQUATELY PREPARES LEARNERS TO COPE WITH HIV/AIDS PATIENTS.

QUESTIONNAIRE:

Please ensure that you have answered all questions. Please tick the appropriate block where applicable.

Section A: Identification of Details

1. Name of University: _____
2. Gender:
 - Male
 - Female
3. Age:
 - Below 20 years
 - 20-25 years
 - 25-30 years
 - Over 30 years
4. Have you repeated any clinical block, area, course?
 - Yes
 - No
5. If yes indicate which year.
 - 1st year
 - 2nd year
 - 3rd year
 - 4th year
6. How many clinical blocks/areas/courses have you completed thus far?
 - 1st year
 - 2nd year
 - 3rd year
 - 4th year
7. Have you come into contact with HIV/AIDS patients during your blocks/areas/courses?
 - Yes
 - No
8. If yes, how many per blocks/areas/course?
 - 1 in 2
 - 1 in 5
 - 1 in 10
 - 1 in 20
 - other

9. Have you had any lectures on HIV/AIDS during your physiotherapy course?
 - Yes
 - No
10. If yes, indicate which years of study.
 - 1st year
 - 2nd year
 - 3rd year
 - 4th year
11. Indicate what the lectures covered:
 - Pathophysiology of HIV/AIDS:
 - Modes of Transmission
 - Risk and precautions
 - Misconceptions on HIV/AIDS
 - Counselling of HIV/AIDS patients
 - Associated conditions
 - Role of physiotherapists in HIV/AIDS
12. Indicate which of the following has been covered in clinical practice/block/area/course:
 - Pathophysiology of HIV/AIDS
 - Modes of Transmission
 - Risk and precautions
 - Misconceptions on HIV/AIDS
 - Counseling of HIV/AIDS patients
 - Associated conditions
 - Role of physiotherapists in HIV/AIDS

Section B: Knowledge

1. What does the abbreviation AIDS and HIV stand for?

AIDS: _____

HIV: _____
2. What are the modes of transmission of HIV/AIDS briefly.

3. Do physiotherapists have a role in the management of HIV/AIDS patients?

- Yes
- No

4. Which of the following conditions is commonly manifested in HIV/AIDS patients?

- a. Respiratory:
 - i. Tuberculosis
 - ii. Pneumocystis carinii
 - iii. Chronic bronchitis
 - iv. Asthma
- b. Neurology:
 - i. Hemiplegia
 - ii. Sensory disturbance
 - iii. Peripheral Neuropathy
 - iv. Ataxia
- c. Musculoskeletal:
 - i. Muscle wasting
 - ii. Myopathy
 - iii. Myalgia
 - iv. Arthropathies

5. What precaution would you take with each of the following when treating a patient with HIV/AIDS?

- a. With skin contact
- b. With open lesions
- c. Requiring suctioning
- d. When exposed to body fluids

6. What TWO important aspects would you counsel your HIV/AIDS patients on?

Section C: Attitudes

1. The HIV/AIDS problem is something that I have not given much thought to.

- Strongly agree
- Agree
- No opinion
- Disagree
- Strongly disagree

2. I feel at risk when treating patients infected with HIV/AIDS.

- Strongly agree
- Agree
- No opinion
- Disagree
- Strongly disagree

3. I have no sympathy for patients who have contracted the disease through sexual promiscuity.

- Strongly agree
- Agree
- No opinion
- Disagree
- Strongly disagree

4. I have no sympathy for patients who have contracted the disease through drug abuse.

- Strongly agree
- Agree
- No opinion
- Disagree
- Strongly disagree

5. I know very little about the physiotherapy management of HIV/AIDS patients.

- Strongly agree
- Agree
- No opinion
- Disagree
- Strongly disagree

Section D: Recommendations

1. Indicate which of the following will improve ones attitude about the physiotherapy management of HIV/AIDS patients.

- Theoretical knowledge of HIV/AIDS patients
- Clinical knowledge of HIV/AIDS patients
- Problem solving skills
- None of the above

2. Indicate which of the following you need further courses in to learn more about HIV/AIDS.

- Pathophysiology of HIV/AIDS
- Modes of Transmission
- Risk and precautions
- Misconceptions on HIV/AIDS
- Counseling of HIV/AIDS patients
- Associated conditions
- Role of physiotherapists in HIV/AIDS

3. Comment on the appropriateness of the physiotherapy degree in South Africa in facilitating learners to cope with HIV/AIDS.

Thank you.