East and Central African Journal of Pharmaceutical Sciences
Vol. 5(2002) 3-7

Knowledge of Sexually Transmitted Diseases Management Among Pharmacists in Dar es Salaam Tanzania: A Case Study

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This study was conducted to find out if pharmacists are conversant with the management of sexually transmitted diseases (STDs) and whether they use their knowledge appropriately in managing their clients with STDs syndromes. A comparison was made between community pharmacists who graduated before and after the introduction of STDs/HIV management program in the Faculty of Pharmacy, University of Dar es Salaam, Tanzania in 1992. The aim was also to find out if these pharmacists have attended any training on STDs management after their formal training, and whether they are able to make correct diagnosis and give the right drug(s) to their clients suffering from STDs. Self-administered questionnaires were distributed to eighty-seven pharmacists operating in Dar es Salaam. The response was 74.7% (n=65), with female to male ratio of 1:1.8. Of the responding pharmacists, 73.8% reported to have had formal training on STDs management during their undergraduate course. All pharmacists reported that they normally see clients at their pharmacies with complaints suggestive of STDs. All pharmacists were able to list three or more STDs. About 65% of post-curricula pharmacists were able to list one or more STDs causative agents. Ninety four and hundred percent of pre- and post-curricular pharmacists, respectively were found to give the right drug(s) for various STDs. Twenty seven percent post- and 64.7% pre-curricula pharmacists had attended training on STDs management since they graduated.

Key words: Pharmacy curriculum, STDs, HIV/AIDS management.

INTRODUCTION

Sexually transmitted diseases (STDs) are among the important causes of morbidity and mortality in Tanzania, but their exact magnitude is not known [1]. In the late 1970s, the Ministry of Health (MOH), Tanzania reported that STDs were among the top ten causes of hospital attendance in mainland Tanzania, with every 1000 outpatients nationwide, 15 - 100 patients were diagnosed as having STDs [2]. A study conducted to ascertain the knowledge, attitude and involvement of pharmacists in over-the-counter treatment of common STDs in Dar es Salaam, Tanzania, reported that an average of 200 clients seek treatment of STDs from the pharmacists every day [3]. A similar study done in Nepal in 1998 reported that few pharmacists were able to provide correct treatment for etiology specific to STDs [4].

Today, with the advent of Acquired Human Deficiency Syndrome (AIDS) pandemic, the magnitude of STDs is overwhelming. It is now clear that the presence of STDs facilitates the transmission of the human immunodeficiency virus (HIV) [5]. Studies conducted in Uganda [6] and Tanzania [7] recommend improving STDs management as an HIV transmission prevention strategy. The role of STDs that produce genital ulcers in facilitating transmission and spread of HIV is now well established and programs which provide effective management of STDs have been shown to decrease sexual transmission of HIV significantly [6, 8, 9].

However, in many parts of Tanzania management of STDs is still a major public health problem leading to severe complications, and this is due to the deficiency of proper diagnosis and laboratory centers. Therefore many patients consult the first level of primary health care, where even basic training of health

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worker in STDs management is lacking. The MOH, through the National AIDS Control Program and in collaboration with African Medical Research Foundation (AMREF), has been promoting the syndromic approach in the management of STDs without requiring expensive and time-consuming laboratory tests (10-13).

Reports on training curricula of medical, paramedical, nurses and other allied health professions had shown that they provide adequate knowledge and skills to the students particularly in regard to the epidemiology and management of STDs together with the control and prevention of these diseases in the community (14). One cannot afford to ignore the fact that pharmacists treat their clients who on daily basis seek STDs treatment from their near-by pharmacies. A study which was conducted to determine the effect of STDs training on knowledge, attitude and practice (KAP) of STDs management by community pharmacists in Tanzania (15), and those performed elsewhere (16-17) showed a significant improvement in knowledge in STDs management.

This study was carried out to make a comparison between pharmacists who graduated before the introduction of STDs/HIV management program at the Faculty of Pharmacy curriculum (pre-curricular) and those who graduated after the introduction of the program (post-curricular). It was also designed to find out if pharmacists had attended any other on-tjob training on STDs management, and to establish if they were able to make correct STDs diagnosis and give right drug(s) to their clients

METHODS

The study subjects were community pharmacists in Dar es Salaam region, Tanzania. Self-administered pre-tested questionnaires were distributed to 87 pharmacists in their respective randomly selected pharmacies after informing them about the study. The designed questionnaires comprised mainly closed and open-ended questions, which allowed respondents to give details of their own experience of handling STDs clients. The questionnaires were distributed and collected after a period of three months. The data collected were analyzed manually and any association between these two groups of pharmacists established.

RESULTS AND DISCUSSION

Eighty-seven questionnaires were distributed but only 65 (74.7%) were filled and returned. Twenty-two, were not completed because the shops were either closed (n=8), the pharmacists were absent during the time of collection (n=4), or the pharmacists did not want to participate in the study (n=10). Out of the sixty-five respondents, 23 (35.4%) were females and 42 (64.6%) were males. Of the respondents, only 17 (26%) were working as pharmacists before the introduction of the STDs/HIV curriculum 1992/93. A proportion (13.8%) of those who were not exposed to the curriculum were trained abroad. Thirty-five (72.9%) out of 48 post-curricula pharmacists, reported to have had formal training on STDs/HIV during their undergraduate course. Eleven out of 17 pre-curricula pharmacists attended STDs/HIV workshop training organized by a project on STDs education for pharmacist in 1991/92. All pharmacists reported to have seen clients with STDs complaints in their pharmacies. Gonorrhea and syphilis were the most common STDs diagnosed over the counter (Table I).

Table 1. Common STDs reported to pharmacists by clients in Dar es Salaam, Tanzania

STD	Frequency	%
Gonorrhea	65	100
Syphilis	63	96.6
Vaginal candidiasis	36	55.4
AIDS	32	49.2
Chancroid	30	46.2
Trichomonas Vaginalis	26	40
Genital Warts	26	40
Chlamydia	14	21.5
LGV*	12	18.5
Herpes simplex	10	15.4

***LGV: Lymphogranuloma vaginalis**

Most of the pharmacists were able to list more than two STDs, with their clinical names. Forty-six (70.8%) of all pharmacists were able to correctly mention the causative organism of the STDs. They were also able to differentiate STDs by using three methods, which include acquired knowledge in undergraduate course (83.3%), MOH syndromic treatment algorithms (58.3%) and from laboratory test results (54.2%). Figure 1 illustrates the number of pharmacists who

were found to give the right drug for management of STDs. Both pre- and post-curricula pharmacists appeared to give correct therapy for STDs presenting as genital ulcers, vaginal discharge and candidiasis.

This is because their symptoms are easily identified and are common. Sixty-five and twenty seven percent of the pre-curricula post-curricula pharmacists, respectively, had attended training after their graduation.

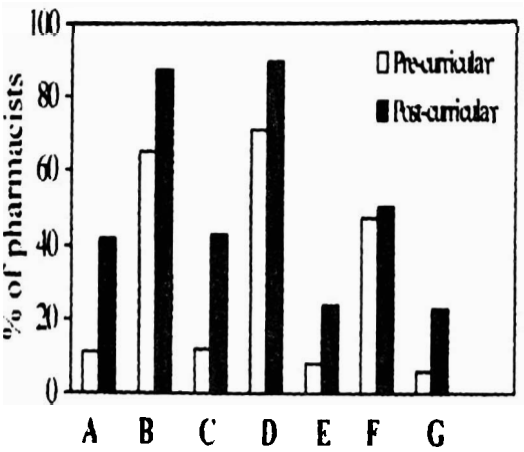

Figure 1: Percentages of pharmacists able to give right drug(s) for different types of STDs in Dar es Salaam; A:Tricomonas vaginalis, B: Genital ulcer, C: Genital warts, D: Vaginal discharge, E: Pelvic inflammatory disease, F: Candidiasis, and G: Chancroid

Those who had not undergone any formal training acquired their knowledge from using reference books and others through other sources like radio and television.

The findings from the present study show that a significant proportion of post-curricular pharmacists and pre-curricular are able to list three or more STDs causative agents. Although there was some tendency for the post-curricular pharmacists to be more knowledgeable about STDs curative agents than pre-curriculu pharmacists.

As mentioned earlier, the introduction of STDs program in pharmacy curriculum was a result of a project on STDs education for pharmacists. In this project a survey was conducted to ascertain the knowledge and involvement of pharmacists over the counter STDs management in pharmacies. The survey found that pharmacists were attending to clients seeking treatment for STDs. The same behaviours have already been reported elsewhere [17-19]. It was also observed that the pharmacists were not familiar with the MOH treatment algorithms, although they knew the causative agents for most of the common STDs [3]. A training workshop was organized in 1992 with emphasis on STDs treatment using the MOH syndromic approaches, causative agents and the use of laboratory results and preventive measures. Posters and leaflets were also distributed to all pharmacies for better management of STDs. A KAP survey a month after the workshop showed a significant improvement in STDs management and prevention [15]. It is therefore likely that the high knowledge of etiology of STDs shown by the pre-curricula is a result of the exposure in the workshop and the posters, a good approach of continuing education for in-service workers. Furthermore, the study found that pharmacists use their acquired knowledge to train their assistants. These findings complement well with those reported by Ndulo [20] and Somse [21], that the quality of STDs treatment in pharmacies must be improved, as the pharmacy in developing countries is reported to be the first part of contact in health delivery services.

In the present study in which continuous education appears to be a good approach for in-service training because small proportion of pre-curricular pharmacists (46%) compared to the post-curricula colleagues (83%) use the knowledge acquired through a workshop to differentiate STDs. One of the possible reasons could be that the later use the knowledge acquired during their undergraduate training. It was interesting to note a similar proportion of pre- and post- curricula pharmacists reported using the MOH treatment algorithms and posters for the management of STDs. This observation could be due to the fact that the posters and the leaflets are simple and easy means of information, education and communication for in service personnel.

There was no difference between the two groups with regard to use of laboratory results for STDs diagnosis. However, majority of both categories of pharmacists use the syndromic approach. Regarding the ability of pharmacists to give right drugs for different STDs, post curricular pharmacists were better than the pre-curricular pharmacist.

CONCLUSION

In conclusion, this study has revealed that, the post-curricular pharmacists were more familiar with the management of STDs, which is reflected in all STDs listed by the pharmacists in the questionnaires. This observation is felt to be as the result of the STDs education component in the training of post-curricular pharmacists. It is therefore recommended that a policy of continuing education to be introduced, so as to enable all pharmacists to be up to date with the current techniques in the management of STDs.

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