

Can Medicine-sellers in Pharmacies of urban Bangladesh meet the needs of Clients with STD?

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Introduction

As the new millennium approaches, over 33 million people are estimated to be living with HIV, while about 14 million are estimated to die due to HIV/AIDS (Health Dev., 1998). Bangladesh is at a pre-epidemic stage of AIDS with a strong potential for the spread of HIV because of its close proximity to the Asian AIDS epicenter, and its location at the crossroads of South-Asian migration and mobility.

With the emergence of HIV infection, prevention and management of sexually transmitted diseases (STDs) have become an urgent issue, as many of the STDs are co-factors for HIV transmission. The World Health Organization estimates that during 1995, at least 333 million new cases of curable STDs in adults occurred globally and an estimated 150 million of these were in the ten countries of South-East Asia. For several decades, STDs have been ranked among the top five diseases for which adults in the developing countries seek healthcare services (WHO, 1992).

In many developing countries, the first encounter for treatment of STDs is pharmacies. Over the counter (OTC) purchase of antibiotics from pharmacies is almost universal despite laws that regulate their distribution. In Bangladesh, both the government and non-government organizations provide RTI/STD services at various levels. In the urban areas of Bangladesh, the pharmacies are ubiquitous, and are a ready source of medicines - pharmacies are located in almost every street corner. The findings of a study show that there is one pharmacy for every 1,000 persons, and one qualified physician for every 2,000 persons in the city of Dhaka (Majumder et al., 1996). Studies concerning service-seeking behaviors in Bangladesh are limited. According to available information, men with STDs usually seek treatment from medicine-sellers (Ahmed et al., 1997). Pharmacies also play a role in reproductive health services, providing referrals for clinical family planning methods, advice on pregnancy, and treatment and referral for STD-related symptoms (Mookherji et al., 1997). The results of the Knowledge Attitude and Practices study on males, carried out by the Social Marketing Company (SMC), showed that the sources of treatment for males with STD symptoms were physicians, clinics, hospitals, pharmacists, *kabiraj*, and homeopath (Associates for Family Health Research, 1998). The pharmacy is one of the sources from where truckers sought services for their STD symptoms (Hasan, 1998). The results of the stepwise qualitative study, carried out by PIACT Bangladesh, showed that people in urban areas usually seek care from government hospital facilities, pharmacies, and private medical practitioners. While the rural populace goes to pharmacies, quacks, and government healthcare facilities at the sub-district and union levels. The poor usually go to the traditional healers and the homeopathic doctors. However, dwellers in urban and rural areas usually procure medicines from pharmacies (Choudhary et al., 1997).

In Bangladesh there is limited information regarding medicine-sellers' knowledge on STD/AIDS and their practice in dealing clients with STDs. The SMC began the Health Providers' Training Program (HPTP) involving medicine-sellers in 1986. It's exclusive training program on STDs/HIV/AIDS for medicine-sellers is a key component of "Shurockkha"-the STDs/AIDS Prevention Program of the SMC (Social Marketing Company, 1997). The present study explores the medicine-sellers knowledge on STDs/AIDS and their practices in providing services to their clients with STDs. This study was conducted by Operations Research Project of ICDDR,B in collaboration with SMC.

Objectives

The objectives of this study were to:

1. Describe the profiles of the medicine-sellers of the Tongi municipality area (ii) assess their knowledge on STDs/AIDS
2. Assess the STD management practices of these medicine-sellers.

Methodology

Two-hundred and one medicine-sellers of 157 pharmacies of the Tongi municipality area were surveyed. Tongi is an industrial area adjacent to Dhaka, the capital city of Bangladesh. There are a number of large markets and bazaars where these pharmacies are located. It is one of the 19 urban areas prioritized by AIDSCAP/USAID in 1996 for behavior change communication, condoms, and STD services to prevent an epidemic of HIV in Bangladesh (Bennett et al., 1996). This area has a substantial number of transient male transport workers, traders, and floating commercial sex-workers (CSWs). The survey was carried out in 1998.

For this study, by medicine-sellers we mean those who sell medicines from pharmacies and pharmacies are defined as medicine shops which sells allopathic medicines.

Data were collected using a self-administered questionnaire and mystery-shopping. Two hundred and one medicine-sellers from 157 pharmacies were surveyed. All the medicine-sellers filled up the questionnaire. The questionnaire was designed to explore medicine-sellers' knowledge on STDs/AIDS and what they report regarding STD management practices. As part of the survey, out of 157 pharmacies, mystery-shopping events were conducted in 33 randomly selected pharmacies to gather information on the usual practices of the medicine-sellers with STD clients. Mystery-shopping was an event where a trained persons pretended to be a client with STD and sought services from the selected pharmacies.

Results

Profile of medicine-sellers

All the medicine-sellers in this study were males, and the median age was 28 years. Among them, 65 percent had either completed S.S.C. (had at least 10 years of schooling) or H.S.C. (had at least 12 years of schooling) and only three medicine-sellers had a diploma in pharmacy.

The experience of the medicine-sellers ranged from one to 34 years and the median years of experience was eight years. Fourteen percent of the respondents reported that they had previous training on STDs management, but none of them mentioned the source of training.

Knowledge of medicine-sellers on STDs/AIDS

The sampled medicine-sellers defined STDs as only gonorrhea, syphilis, or vaginal discharge. Of the 201 medicine-sellers, about 84 % could mention the complications of STDs, such as infertility and abortion. Fifty-five percent associated condoms with the prevention of STDs. Forty-three percent could describe AIDS, and 65 % could mention at least one preventive measure for AIDS.

The medicine-sellers cited multiple sources of information on STDs ([Table 2](#)), but a physician was identified as the commonest source by most medicine-sellers. They indicated that printed materials, such as books, newsletters, and magazines, were also the sources of knowledge on STDs.

STD management services reported by medicine-sellers

Ninety-six of the medicine-sellers reported that they had STD clients with complaints of urethral discharge, genital ulcers, and vaginal discharge. Of them, 67 % mentioned clients with genital ulcer, 74 % mentioned clients having urethral pus discharge, and more than half reported that they had clients who sought services for their wife's vaginal discharge. A few reported that they attended their female clients who complained of vaginal discharge. They provided treatment, counseling, and referral services to their clients with STDs ([Table 3](#)).

As reported by the medicine-sellers, 92% had a separate room for attending to their clients and about half of them mentioned that the pharmacies they were attached with had a physician in each pharmacy for private practice. The medicine-sellers cited multiple aspects of counseling which were: avoiding extra-marital sex, condom use, drug compliance, treatment of partner, and follow-up visits ([Table 4](#)).

Of the medicine-sellers who counseled clients with STDs, 46 % reported that they counseled their clients, in addition to providing treatments. Of these medicine-sellers, about 41 % covered all aspects of counseling. In the case of referring their clients with STDs, they reported that they directed such clients to qualified general medical practitioners, STD specialists, and hospitals as the referral points for the STD clients. Most of them preferred the STDs specialists. ([Table 5](#))

Observed management practices of STD clients

Mystery-shopping results showed that of the 33 medicine-sellers approached, 29 expressed interest in treating the presented STD symptoms by the mystery-shoppers, i.e., as soon as the shoppers informed them about their condition, they showed willingness to treat them. Of the 29 who expressed interest, 28 were friendly, i.e. they received the clients well, but one was indifferent, i.e., he did not express any concern.

Four medicine-sellers refused to give any treatment to the clients. Among them, two who were judgmental told the clients, "You have this disease, because you had sex with bad women and I do not want to treat you". Two others were indifferent, i.e., they only mentioned that they would not be able to treat them.

Among the medicine-sellers who were willing to treat, 21 took a history of the illness, i.e., they asked the mystery shoppers about their marital status, duration of the symptoms, and whether they had any sex with any CSW.

While eight medicine-sellers gave treatment without taking any history. Only eight medicine-sellers wanted to do a physical examination. Twenty-seven medicine-sellers prescribed medicines and of them, three prescribed in response to requests by the shoppers. Two medicine-sellers requested the shoppers to get blood tests and then to come back for treatment.

All the 27 medicine-sellers who prescribed medicines counseled the clients on completing the full course of medicines, and 22 of them requested follow-up visits. But five medicine-sellers did not ask for any follow-up visits even after being prompted by the shoppers for revisit. Sixteen medicine-sellers counseled them on treatment of partner(s), and 11 informed them about STDs/AIDS. However, seven of these medicine-sellers also provided information about STDs/AIDS.

All the medicine-sellers maintained privacy during counseling. Twenty-two pharmacies had separate rooms for doctors. During some of the mystery-shopping events, shoppers were brought to these rooms meant for doctors. At the time of the mystery-shopping event, there were no practising doctors available in these rooms. Some pharmacies had a small space behind the racks of medicine where they spoke to the shoppers privately. In many cases, the shoppers were requested to wait until the other clients left the shop, and then they were brought to a corner of the shop to speak. During these interactions when other clients came, the medicine-sellers stopped to talk and attended to the other clients. As soon as these other clients left, they restarted attending to the mystery-shoppers. Out of 33 medicine-sellers, only four referred the mystery-shoppers to a general practitioner.

Patterns of prescribing medicines by medicine-sellers

The findings of the mystery shopping showed that the medicine-sellers prescribed oral, injectable and topical antibiotics, analgesics, and vitamins. The medicines prescribed by them were compared with the treatments recommended by the Ministry of Health and Family Welfare, the NIPHP developed technical standards, and the

service-delivery protocol for the management of RTI/STDs (Ministry of Health and Family Welfare, 1999). The medicine-sellers prescribed medicines for urethral discharge and genital ulcer. Information was obtained on the drugs of choice ([Table 6](#)), the dose, and the treatment course prescribed by the medicine-sellers. Most medicine-sellers did not prescribe medicines as per the recommendation of the technical standard. A number of combinations of two antibiotics are recommended for the treatment of genital ulcer and urethral discharge. But none of them could prescribe the recommended dose and the correct course of treatment. Thus, it is evident that the doses prescribed by the medicine-sellers were either incorrect, under, or over recommended dosage. Of those who prescribed topical antibiotics, four prescribed antibiotic ointment for application on the ulcer for the treatment of genital ulcer and two prescribed an ointment for application over the entire penis for the treatment of urethral discharge. Some medicine-sellers also prescribed analgesic and anti-allergic medicines for the treatment of genital ulcer and urethral discharge.

Provision of information on STDs/AIDS from pharmacies

Mystery shopping results showed that 14 medicine-sellers provided information on STDs/AIDS, but half of them informed after being prompted by the shoppers. In providing information on STDs/AIDS, four informed the shoppers that AIDS is a deadly disease and STDs can cause AIDS.

"Don't go to bad places (meaning "brothel" or CSWs)", was the advice of three medicine-sellers. Two medicine-sellers informed the shoppers that AIDS can be transmitted through blood transfusions, and one of them also explained that AIDS could be transmitted through sexual intercourse and through contaminated syringes and needles. Three medicine-sellers stated that STDs are a symptom of AIDS.

Twenty-five medicine-sellers stated that the use of condoms can prevent STDs. Of them, 11 provided this information spontaneously, and 14 responded after being probed. Eighteen of the 25 medicine-sellers discussed how to use a condom - seven of them discussed this spontaneously, and the rest discussed this after being probed by the shoppers.

Twenty-four pharmacies had condom-dispensing boxes on display, but none of these pharmacies had any posters regarding condom promotion. Four of the pharmacies displayed stickers regarding condom use.

Reported and observed practices of medicine-sellers

Of the 201 medicine-sellers, 67 % reported that they referred their clients with STDs to general practitioners, STD specialists, or hospitals, although about half of them also provided treatments themselves. During the mystery shopping, it was observed that 27 of the 33 medicine-sellers provided treatments, and only 4 referred the STD clients to a general practitioner ([Figure](#)). In the figure others include no services or refusal to treat or only advice for laboratory investigation.

Discussion

The findings of the study showed that the medicine-sellers attended their clients having STDs and provided treatment for STDs. The medicine-sellers had a friendly attitude in treating the clients having STDs but most of them prescribed medicines without following the recommended steps of STD management. The pharmacies in most cases did not require clients to undergo any physical examination or screening process - they provided advice to the extent that they could sell medicines to the clients (Mitchell et al., 1987). The study has shown that none of the medicine-sellers prescribed medicines as recommended by the national standardized guidelines of RTI/STDs management. Instead, they provided inadequate treatment. In Cameroon, a survey of men leaving pharmacies found that only nine to fifteen % of men received prescription from a physician (Trebucq et al., 1994). The majority received their prescription from pharmacies, but 50 - 75 % of the patients were treated incorrectly. The goal of public health providers is to ensure quality services for the population. Although the services of medicine-sellers have been used for management of STDs, they are not mandated to provide treatments, and there

are no formal training facilities for them on STD management. It is evident from different studies that people with symptoms of STDs seek services from pharmacies and medicine-sellers in pharmacies provide services to them. The present study also implied this fact and showed that the services, including the treatment by medicine-sellers of clients having STDs, were not adequate. Therefore, the services of medicine-sellers need to be improved. In Nepal, medicine-store personnel were taught to dispense antibiotics using the syndromic-management approach and to provide clients with preventive education and condoms (Mugrditchaian, 1995). This intervention is being developed and implemented by the Nepal Chemists and Druggists Association in close collaboration with the Nepal Medical Association, the Department of Drug Administration, and other relevant government agencies and university experts. The intervention in Nepal also includes the establishment of appropriate referral networks between pharmacies and health facilities. In Thailand, the pharmacists' association has adapted the syndromic-management flipchart to train the pharmacists of Bangkok in the management of STDs (Mugrditchaian, 1995). The results of a pilot project in Chiang Mai, a province in northern Thailand, showed that, given proper education, medicine-store personnel can play an important role in the control of STDs (Mendoza, 1996). During the 18-month project in Chiang Mai, great progress was made in improving the knowledge of staff and their clients and helping them use that knowledge to improve the case management of STDs. Currently, a program is underway to train personnel of pharmacies throughout Thailand, such that they can play a larger and more constructive role in the national AIDS prevention and control program.

The medicine-sellers in this study were experienced in dispensing medicines. The majority of them had education up to SSC or above, and almost all of them had the intention to provide information on the prevention of STDs/AIDS to their clients. But their knowledge on STDs/AIDS was not adequate, and thus, they provided inadequate information to their clients on STDs/AIDS. This may be because of their limited exposure to STDs/AIDS information. The medicine-sellers in this study mentioned the sources of their knowledge on STD/AIDS. However, one is required to speculate their preferences regarding the sources of information, and how they want to acquire and provide the necessary preventive education to their clients.

The study showed that most medicine-sellers counseled their clients with STDs on the need for compliance with treatment provided by them. More than half of the medicine-sellers counseled their clients on treatment of their partners, and more than one-third of the medicine-sellers counseled their clients on the use of condoms. Counseling means in-depth, long-term, and repeated interactions between a trained counseling professional and a patient covering topics that can be very broad in scope and emotional in nature (Ghee et al., 1995). In a pharmacy setting, there are usually limited human resources available, and the interaction between a client and medicine seller may be brief as well as restricted to only one encounter. For these reasons, patient/client education rather than counseling, is the preferred term. Medicine-sellers can be the potential providers of pharmacy-based preventive education on STDs/AIDS, but will require substantial strengthening to adequately discharge this function.

It is evident from this study that the medicine-sellers referred their clients to other health facilities, and preferred qualified medical practitioners, STD specialists, and hospitals as the referral points. In practice, very few did refer. Pharmacies are an important component of the private sector. Clients with STDs come to them for services, and referring clients to a proper referral point is important in providing effective and quality services. Establishment of a referral network between pharmacies and health facilities should be considered for improving the prevention and management of STDs.

Programatic Implications of Findings

This study implies that the pharmacies are a source of medicines, advice, referral, and information for STDs. However, the quality of services available at pharmacies needs to be improved. The pharmacy is one of the important sources of primary healthcare for the population, especially men in urban Bangladesh. Therefore, the medicine-sellers' current and potential roles in the prevention of STDs/AIDS has to be identified and advocated. The findings of this study can be used to identify and advocate such roles. People use pharmacies for different health problems as well as for STDs. For an effective prevention program on STDs/AIDS, medicine-sellers in pharmacies can be potentially involved. However, such involvement needs building the capacity of the medicine-sellers in the prevention of STDs/AIDS. This study would help to identify the areas that require to be addressed in

the improvement of the medicine-sellers capacity to involve themselves efficiently and effectively. As mentioned before "Shurockha"-the STD/AIDS Prevention Program of SMC in Bangladesh involves medicine sellers in pharmacies as one of health providers. Findings of this study would contribute to improvement of that pioneering program.

Future Direction

Provision of STD treatment by medicine-sellers based on syndromic-management approach has been tried in several developing countries. However, operation research is required to see whether the medicine-sellers in pharmacies of Bangladesh could be involved in the prevention and management of STDs with due emphasis on appropriate referral. Also, research is needed to identify the factors that influence clients' choices for reproductive healthcare, including STDs, and to determine the quality of services available at pharmacies. The factors that influence medicine-sellers' knowledge and practices relative to STD should also be identified. All these are required in advocating the national policy to involve medicine-sellers in the national STDs/AIDS prevention program.

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