Brief Communication

Drug use pattern in private drug retail outlets

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Abstract: This is the first preliminary appraisal report on drug use pattern in private drug retail outlets in Southern Nations, Nationalities and Peoples Region. Community pharmacies and other retail outlets have always been the major reservouir of drugs in the health care system worldwide. Pharmacy employees are consulted for health advice on problems of all kinds, and remedies are sold or dispensed with almost every transaction. Some of the remedies are safe and effective when used correctly but otherwise can be dangerous. The results of the baseline study revealed that 94% of the retailers dispense drugs under dose; 74% dispense drugs obtained from illegal sources; 68% handled drugs beyond their level of competence; 20% dispense expired drugs, and 63% of the retailers provide medical services against regulations. Irrational use of drugs in the private retail outlets in the region, is obvious as depicted by the results of this study. It is recommended that formulation and implementation of a new drug legislation and regulation in addition to the educational intervention will help in promoting rational practice. [*Ethiop. J. Health Dev.* 1998;12(3):261-264]

Introduction

It is clear that if real health needs are to be met and if there is to be equal access to appropriate health care, countries can not afford to waste scarce resources on drugs which either do not meet the needs of the majority or which are priced at a level that society cannot afford. The indiscriminate use of drugs is not only wastage of scarce resources which could have otherwise been invested on nutritious foods or on developing essential services, but it can also lead to drug- induced diseases. In countries where regulations and enforcement are weak, the indiscriminate use of drugs can encourage and lead to the presence on the market of fake and substandard drugs(1).

The rapid population growth in the developing world promises a bonanza for pharmaceutical manufacturers, drug sellers and medical practitioners. Three billion people, with more than their fair share of illness, have discovered modern drugs and sales curves are rising exponentially, even while (paradoxically) the poorest, sickest and most remote people have virtually no access to good therapy; even while most pharmaceuticals prescribed bear scant relevance to the diseases of those who do have access and means; even while millions of people are unprotected from the profligate and haphazard use of ineffective or dangerous chemicals designated as medicines. Studies should continue to illustrate these anomalies. to analyse why these situations exist and to offer solutions to improve the fit between the unquestioned need for good health and the safe, sane distribution, prescribing and use of drugs (2,3).

The medical profession may be at the heart of the problem of the irrational use of drugs and pharmacists and other commercial purveyors move the problem closer to the purse. They are the interface between the public and the manufacturers and legal prescribers. Given the opportunity, they sell most profitable drug, not the most rational, and as many at one time as the traffic will bear (4,5). Not only do licensed physicians prescribe drugs, but also pharmacists, traditional healers, sanitarians, health centre custodians and travelling injectionists as well as a large,

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growing network of unofficial health workers playing with powerful medicines. Many have learned from, or were influenced by, doctors. In some countries side walk vendors repack several pills and capsules representing a variety of different drugs and promote each packet for ‘beauty’, ‘pain’ ‘diarrhoea’ ... etc. In most developing countries it is not necessary to have a physician’s prescription

to obtain drugs, the laws are seldom enforced since, even where such practice is illegal (6,7).

With increased access to pharmaceuticals a stated goal of the primary health care philosophy, the misuse of drugs will increase. Health centres account only for a fraction of the drug purchase. The majority of the drugs are purchased from neighbouring stores, and/or from pharmacies together accounting for a total of 80% of the drugs purchased(8).

The situation in Ethiopia may not differ from that in the rest of the developing world. Ethiopia is located in the horn of Africa with an estimated population of 56.8 million. Communicable diseases and nutritional deficiencies combined with poor sanitation, rapid population growth and low access to health services (38%) contributed to the high mortality and morbidity in the population (9,10). It is clear that the government supplied drugs could not satisfy the demands of health facilities, especially in densely populated areas. It is a common practice that drugs provided by the government run out within three to four months of the fiscal year, while in under-used facilities, stocks last longer. Patients stop coming to the public health facilities where there are no drugs and go to the private retailers. This leads the rural health network grind to a functional halt. It is, therefore, appropriate that the government is encouraging the private sector investment in this area. Yet we must also admit that free market orientation may lead to better access to the drug use but the irrational use of pharmaceuticals is also likely to become a reality and would be out of the control of regulatory bodies in the years to come, unless proper follow-up and studies conducted and rectified by instituting appropriate intervention strategies (11,12).

The Southern Nations, Nationalities and Peoples State is administratively divided into nine Zones and five special Woredas and has an estimated population of over 12 million. The available health services include both pubic and private institutions. To date there are 10 hospitals, 66 health centres, 441 health stations and 291 community health posts. The health service coverage is low, assumed not to exceed 38%. The private health institutions registered so far include 15 pharmacies, 18 drug shops and 380 rural drug vendors.

The aim of this study is to provide information on the pattern of drug use in the private retail outlets in the Southern Nations, Nationalities and Peoples Region and to recommend a possible intervention strategy.

Methods

All private drug retail business centres in the Southern Nations, Nationalities and Peoples State were collected from the register and this was used as a sampling frame out of which 80 retail outlets were randomly drawn. This was a relatively large sample intended to increase the accuracy with possible consideration given to a visit of reasonably sufficient number of closely situated retail premises.

Cross-sectional data were collected by 12 pharmacists, four druggists and six sanitarians after prior orientation given to them. Data collection format was developed and reviewed to insure consistency with the drug regulation notice of 288.56 and rational practice. Two regional pharmacist inspectors were assigned to lead the survey teams deployed in all the Zones and special Woredas that are selected for the study, after having a prior orientation on the purpose of the exercise. Data were collected during service hours of the retail outlets and possible precaution was undertaken to minimize prior leakage of the news to the adjacently located retail outlets. Analysis of data was done manually in the Regional Health Bureau.

Results

This study on the private retail outlets in the Southern Nations, Nationalities and Peoples Region showed that drugs are dispensed by untrained personnel in 24% of cases; licensed professionals were absent in their premises during service hours (23%); a high percentage (74%) of the retailers sell drugs obtained from illegal sources (health facilities, illegal traders), and 20% of the retailers sell expired drugs. A high percentage (94%) of the retailers were found selling drugs below the required dose for which they attribute the customers' inability to pay; 68% of the premises handle drugs

beyond their level of competence (such as Narcotics, Hormones, 3rd generation antibiotics); 63% provide other un-allowed medical services in their premises, and 28% of the premises were found to be substandard according to the criteria listed in the regulation (Table 1).

Table 1: **Results of the drug use pattern in private drug retail outlets, Southern Nations, Nationalities and Peoples State, 1995.**

Sn	Indicators	Premises No.	%
1	Untrained personnel dispensing drugs	19	24
2.	Licensed professional is absent in the premises	18	23
3.	Sell drugs obtained from illegal sources	59	74
4.	Dispense expired drugs	16	20
5.	Dispenses drugs under dose	75	94
6	Handle drugs beyond their level of competence	54	68
7.	Provide other medical services against regulation	50	63
8	Provide services in substandard premises	22	28

Discussion

While it is true that many countries lack adequate supplies of drugs that are appropriate for their health needs, there is also an irrational use of them which poses problems in both developed and developing areas of the world. The reasons for this are complex and are not only the result of financial and budgetary constraints, lack of infrastructure, and human resources. They also reflect the attitudes and behaviours of governments, prescribers, dispensers, consumers, and the pharmaceutical industries.

If public supply systems weaken and collapse under social and financial pressures in the coming years, communities will be forced to create their own solutions to their health care needs. In most instances this will probably mean relying on private sectors and informal markets. But these alternatives cannot replace the role of the public sector(3-5).

This study has revealed that drugs are dispensed by people not having formal training and with little or no concern for the efficacy and adverse reactions of drugs in significant numbers of premises. It also revealed that a high percentage of retailers are contributing to the development of resistant micro-organisms by dispensing under-dose and significant percentage of retailers sell drugs obtained from illegal markets the efficacy and safety of which are doubtful. It is difficult to tell about the efficacy of drugs stored and dispensed in substandard premises and injections provided with repeatedly boiled disposable syringes and needles. The use of potent antibiotics, hormonal preparations and narcotic and phsycotropic substances in rural outlets with poorly trained personnel is one of the major causes of irrational drug use.

Irrational use may be linked with supply problems, i.e, when there is supply shortage, the profit need of the salers arises due to the increased demand of consumers. Moreover the only drugs that are available become unsuitable to treat a particular illness, and social and economic pressures may cause the retailers to prescribe and dispense them anyway. Similarly financial motive can also lead them to prescribe needlessly expensive drugs or under prescribing to patients receiving insufficient treatment when they cannot afford to buy the full doses prescribed or the expensive ones.

Intervention strategies that are educational and managerial in situations like this have shown to rectify such kinds of malpractices and regulate to comply with the existing rules and regulation(1112).

Irrational use of drugs in the private retail outlets in the region is obvious as depicted by the results of this study. The new drug policy should be backed by appropriate legal support and regulatory mechanisms. Regulations and professional codes that relate to the prescribing and dispensing of drugs both in public and private sectors are needed to guide the possible managerial and regulatory intervention measures. Educational intervention strategy may seem less effective in the private sector, but providing objective drug information and continuous seminars will bring about gradual changes in the prescribing and dispensing behaviours of the retailers.

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References

1. WHO. The use of essential Drugs, 1990.
2. Rational use of drugs, WHO Chron. 1986;40:3-5.
3. Fabricant SJ, Hirschhom N. Deranged distribution perverse prescription, unprotected use: the irrationality of pharmaceuticals in the developing world. Health policy and planning (Oxford University Press). 1987;2(3):204-213. 4. Greenhalgn T. Drug marketing in the third world: beneath the cosmetic reforms. Lancet 1986;1:1318-20.
5. Tomson G, Sterky G. Self prescribing by way of pharmacies in three Asian developing countries. Lancet 1986;2:620-22.
6. Melorose D. Bitter pills: Medicine and third world poor. Oxford. UK. OXFAM 1982.
7. O'Donnell M. One man's burdon. Br. Med. J. 1984;289:1632.
8. Abramson JH. Survey methods in community medicine - an introduction to epidemiological and evaluation studies, 3rd ed, 1984.
9. Data provided by Family Health Dep. MOH. 1995.
10. Plan of Action, Child Health Team-Family Health Dep. MOH 1995.
11. Quick J, Laing R, Ross-dagnan D. Intervention research to promote clinically effective and economically efficient use of pharmaceuticals. The international Network for Rational use of drugs J. Clin. Epidemiology, 1991;11:565655.
12. Christiansen RF. A strategy for the improvement of prescribing and drug use in rural facilities in Uganda. Uganda Essential Drugs Management Programme, MOH, 1990.