PEOPLE’S PERCEPTION AND USE OF DRUGS IN ZIMBABWE:

A SOCIO-CULTURAL RESEARCH PROJECT

Dr N. Nyazema (1)
Dr Ossy J. Kasilo (2)
Mr D. Chavunduka (3)

Department of Pharmacy-Drug and Toxicology Information Service, University of Zimbabwe Medical School:

(1) Clinical Pharmacologist
(2) Clinical Pharmacist
(3) Research Assistant
In 1981 WHO's Action Programme on Essential Drugs was established to provide operational support to countries in the development of national drug policies based on essential drugs and to work towards the rational use of drugs.

The Programme seeks to ensure that all people, wherever they may be, are able to obtain the drugs they need at a price that they and their country can afford; that these drugs are safe, effective and of good quality; and that they are prescribed and used rationally.

Research analysing the impediments to developing and managing sound national drug policies and programmes is an important element of country support activities. The Programme undertakes and promotes operational research aimed at filling some of the many gaps in existing knowledge about the best means of selecting, procuring and distributing drugs, and their use by prescribers and consumers.

This document is part of a series reporting on Action Programme research activities and guidelines.

Research that leads to breakthroughs in pharmaceutical technology or in highly sophisticated and expensive techniques of biomedical practice may superficially appear to be more "glamorous". But the operational research that WHO's Action Programme on Essential Drugs undertakes has a direct bearing on the ways in which vital medicines can be made available and accessible to the greatest number of people.
INTRODUCTION

Although an essential drugs list for Zimbabwe was launched as far back as 1981, it was not until 1987 that a comprehensive national drug policy was introduced. This new drug policy contained guidelines for the selection, procurement, distribution, management and rational use of drugs.

The policy aimed to ensure that only the selected essential drugs would be imported by the public sector and that such purchases would be made by the government medical stores. All importation, manufacturing, registration, prescription and dispensing of drugs in the public sector should use generic names only. Various economic incentives were planned to encourage the private sector to import essential drugs identified in the national drug list rather than non-essential items.

Other important aspects were attempts to ensure the Ministry of Health an increased and regular allocation of foreign exchange for drug purchases and to support the local pharmaceutical industry.

In addition to the above mentioned efforts to ensure the availability of essential drugs in Zimbabwe, measures were also taken to promote the rational use of drugs at the various health care levels. Investigations found a need for further training of health care personnel in rational prescribing and dispensing, stock control, ordering and storage. As a result, a training programme was drawn up with special courses on drug management and use as well as incorporation of these concepts into existing training courses and syllabuses. The training programme ranged from community orientation meetings and courses for village health workers, to senior staff at the provincial level.

It was in this context that the provincial medical directors of Zimbabwe in 1987 decided to implement a research project which would yield information about the consumers' attitudes and behavioral patterns with regard to allopathic and traditional medicines. The research project was originally proposed by the WHO Action Programme on Essential Drugs and later adapted to a Zimbabwean context by the Department of Clinical Pharmacology, University of Zimbabwe Medical School. The Principal Investigator was initially a Clinical Pharmacologist, Department of Clinical Pharmacology, Dr N. Nyazema; later the responsibility was transferred to Dr Ossy M.J. Kasilo (PhD), a Clinical Pharmacist and Drug and Toxicology Information Scientist, Department of Pharmacy. Mr Davis Chavunduka was the Research Assistant. Financial support was provided by the Action Programme through a grant of the Swedish International Development Authority/Swedish Agency for Research Cooperation in Developing Countries (SIDA-SAREC).

THE RESEARCH OBJECTIVES

The overall objectives of the study were to gain knowledge about people's patterns of behavior in relation to drugs and modern health care facilities, with particular reference to the way in which the perception and use of drugs may be influenced by the following cultural and socio-economic determinants:

a) the existing popular medical belief system;

b) the geographic and economic accessibility of drugs;

c) the sources of people's cognitive knowledge about drugs, including experience, advertising, sales promotion, advice from others, health campaigns, health personnel and shop keepers.
On the basis of the research data collected, various consumer educational materials on the rational use of drugs will be designed and introduced in some of the selected research areas. By matching these areas with control areas, an evaluation will be carried out as to whether such material can positively affect the extent and nature of people's self-medication and compliance with treatment regimes.

Lastly, the research project sought to develop and test field methodologies and techniques for collecting data on drug use. The aim was to enable health care planners to obtain important data on drug use on a broader geographical scale without having to undertake a long and costly research project.

The Zimbabwean research sites were consequently selected to represent different socio-economic settings and to allow for the planned, controlled experiment with the consumer educational material on drugs. Within one province in Zimbabwe eight sites were selected:

- three commercial farming areas
- one urban area
- two rural areas (in one of these the consumer educational material will be introduced and the other will constitute the control group)
- two peri-urban areas (in one of these the consumer educational material will be introduced and the other will constitute the control group).

**METHODOLOGY**

**Quantitative methods**

In phase one of the research a questionnaire survey was carried out in all the research sites. The questionnaire collected data on socio-economic characteristics, the availability and cost of medicines, sources of knowledge about health care, illnesses in the family during the past two weeks and the action taken. It also sought general information about the most common illnesses in the community and people's various treatment preferences. Questions were asked on the medicines people would like to have available in their homes and the general situation with regard to nutrition and sanitation. The questionnaire was administered to a total sample of 900 respondents, 150 households each from the urban area and commercial farms, and 300 respondents each from the periurban and rural areas. Where the sampling frame was known, a simple random sampling procedure was used, and where this was not possible the researchers employed the cluster sampling method.

The questionnaire interview was supplemented by general reports from each of the research sites. These reports were based on the participant observation which the interviewers were asked to do simultaneously with the structured interviewing. The interviewers were asked to discuss general socio-economic conditions of the areas and people's attitudes towards western medicines, church prophets, traditional healers, drug usage etc.

The interviewers were all women, some of them with previous experience in collecting data. Although they had some formal training, none of them were trained social scientists. The research coordinators were a clinical pharmacologist and a sociologist, supported administratively by a social worker who was employed full time to supervise the field activities. It must be mentioned here that the sociologist left the project at a fairly early stage and was only much later replaced by a clinical pharmacist.
Qualitative methods

The other data collection method employed in the research project was group interviews. On average the group interview sessions each comprised 40 men and women between 18 and 40 years of age. The panel of interviewers consisted of six members. Two members did note-taking and tape-recording. One member directed the questioning by the use of a check list and the rest of the panel probed. Empty medicine cartons, tubes, sachets, capsules and bottles were used to stimulate the discussion. Questions concerned factors that affect the choice of health care, perceptions of capsules, tablets and injections, storage and disposal of drugs, compliance and tracer diseases such as diarrhoea, sexually transmitted diseases and the locally defined illnesses.

RESEARCH RESULTS

In the following the quantitative data from the survey have been combined with the qualitative data from the group interviews to provide a more comprehensive picture of people’s perceptions and patterns of behavior with regard to illness and treatment. Data on socio-economic characteristics, nutrition and sanitation have not been included in this presentation.

Availability of treatment facilities

In all research sites there was at least one village health worker. In terms of health clinics, hospitals, commercial pharmacies or private doctors the situation was not so good. The residents of the rural areas had to travel more than 11km to get to a hospital, between 7 and 11km to visit a health clinic and 40km to reach a pharmacy. The same was true for the employees of the commercial farms. For urban and peri-urban respondents the same facilities were available within a radius of 3km.

There were traditional healers in all the study areas but the rural respondents had to travel more than 6km to consult a healer. With the exception of the commercial farm communities, all areas also had religious healers. These religious healers are called "church prophets" and believe that prayers alone should heal people when they are sick.

No data is available on the number of general shops selling allopathic medicines in the areas, but from the inventory of medicines kept in people’s homes it can be seen that 61% of the medicines (allopathic and herbal medicines) came from a pharmacy or a store. In addition, 85% of the respondents reported in the survey that they frequently bought painkillers, cough and cold medicines and diarrhoea mixtures for adults and children from a store or a pharmacy.

Illness etiologies

Participants in the urban and rural group interviews made a distinction between naturally and unnaturally caused illnesses. Most diseases, chronic and acute, were perceived as naturally caused, that is originating from a modern, unhealthy, physical environment. Unnaturally caused illnesses were "zvivanda", "zvitsinga" and "nhova". "Zivivanda" resembles acute psychosis and "zvitsinga" is characterized by lumpy objects that move through the body and pain at night. "Nhova" is associated with a sunken fontanelle, green stools and specific eye changes which only the experienced person can see.
Illnesses experienced in the last two weeks

Of the people who fell ill within the two week recall period, 51% suffered from diarrhoea, cough and cold or abdominal pains. 87% of the respondents defined these illnesses as having natural causes rather than supernatural causes. It is interesting that 91.7% did not seek any health care during this period. Only 5.7% consulted the modern health care system and 2.7% self-medicated.

Self-medication

The medicine inventory carried out during the survey showed that the following types of medicines were commonly kept at home:

<table>
<thead>
<tr>
<th>Types of medicines in home</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analgesics</td>
<td>29%</td>
</tr>
<tr>
<td>Cough and cold remedies</td>
<td>22%</td>
</tr>
<tr>
<td>Diarrhoea mixtures</td>
<td>10%</td>
</tr>
<tr>
<td>Contraceptives</td>
<td>8%</td>
</tr>
<tr>
<td>Eye and ear drops</td>
<td>7%</td>
</tr>
<tr>
<td>Herbal remedies</td>
<td>24%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

As already mentioned, 61% of these medicines were purchased at a pharmacy or a store, 25% came from the hospital or clinic, 11% were obtained from a herbalist and 3% from health workers. About half of the respondents stored medicines in wardrobes and cupboards while the remaining half of the respondents either used baskets, suitcases or trunks (24%), or stored the medicines on shelves (23%). There was a general awareness that medicines should be stored out of the reach of children.

The urban and rural group interviews indicated that OTC drugs were chosen on the basis of a trial and error process, where the individual’s physical response to a particular drug was the most important factor. The cost of a drug was not a determining factor but the advice of friends could influence the choice of drugs.

Compliance

The qualitative data from the group interviews in the rural areas revealed that people had no ideas about side effects of drugs. When people did experience side effects such as nausea, vomiting or dizziness, it was thought to be a worsening of the illness. This perception may partly explain why non-compliance with prescribed treatment was so high among the respondents. The quantitative data from
the survey showed that only 13% of patients completed the full course of a drug treatment. 63% discontinued their treatment course when they felt that the symptoms had abated and kept the rest of the medicines for future use. It is important here to remember that there was, at the time of the research, a constant shortage of drugs in the rural health facilities. The survey carried out by the Zimbabwean Essential Drugs Programme concluded that 59% of the essential items were in fact out of stock in the rural health care centers. People's non-compliance may therefore be seen as a survival strategy which in their particular context was logical and rational. Some 24% of the respondents, however, said they would dispose of remaining medicines once when the symptoms had diminished.

Drug-sharing was also quite common among rural and urban people although there was a difference in terms of the type of drugs that were shared. Rural respondents tended to share mainly capsules for the treatment of sexually transmitted diseases (the color blue was associated with capsules for such diseases). Urban respondents would share drugs for chronic diseases with friends and relatives, for example medicines for the treatment of diabetes and hypertension. This would especially be the case if these drugs were obtained free of charge from a health facility. It is not clear whether this difference in the type of drugs shared, reflects urban-rural differences in terms of perceptions of drugs, availability of drugs or disease patterns.

Treatment strategies

In response to a question on common illnesses in the areas, people identified measles, malnutrition, hypertension and asthma. For this group of illnesses the following health care choices were identified (it is not clear from the data whether there are differences in health care choice from one illness to the other):

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional healing</td>
<td>46%</td>
</tr>
<tr>
<td>Western type health care</td>
<td>23%</td>
</tr>
<tr>
<td>Self-medication (OTCs and herbal remedies)</td>
<td>27%</td>
</tr>
<tr>
<td>Faith healing</td>
<td>4%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

The above table reflects the answers to a hypothetical illness situation. It is worth bearing in mind that when people were asked what they actually did during illnesses experienced in the last two weeks, more than 90% did not seek any treatment at all.

a. Allopathic health care

In spite of consultation and travel costs, private allopathic practitioners were popular because they allowed for more personal attention and privacy for the patients. Private practitioners also provided injections which people believed to work faster than other forms of medicines. The injections administered by private doctors were believed to be more effective than injections provided by the
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A socio-cultural research project

nurses at the government clinics, which were said to be diluted. The basis of this belief is not known, however, it does reflect a general lack of trust in the public health care system.

The popularity of private practitioners is linked to other problems in the public health care system. One often stated reason was the attitudes of the nurses employed at the clinic. The nurses were perceived as barriers to doctors and unwilling to answer the patients’ questions on illnesses and treatment. The problems of nurse-patient interaction are common problems in Zimbabwe and they are at least partly due to the poor working conditions and low salaries of the staff in the government financed health care sector.

The group interviews provided an interesting motivation for seeking treatment for acute illnesses at the western style health care system. Choosing this system as the first treatment resort did not necessarily reflect a belief in it but rather a fear of the police. It was stated that if a patient should die at a traditional healer’s surgery, there would be unpleasant legal implications.

When people were asked about their preferences in terms of type of treatment from a western style health care facility, the responses were as follows:

<table>
<thead>
<tr>
<th>Type of Treatment</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injections</td>
<td>34%</td>
</tr>
<tr>
<td>Tablets</td>
<td>7%</td>
</tr>
<tr>
<td>Tablets and injections</td>
<td>2%</td>
</tr>
<tr>
<td>Liquids and syrups</td>
<td>1%</td>
</tr>
<tr>
<td>&quot;Depends on the illness&quot;</td>
<td>56%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

It is interesting that the majority of respondents said that the form of administration of a particular drug depended on the type of illness. In many cultures, people always prefer injections, for instance, irrespective of the type of illness (Wyatt 1984, Reeler 1990).

b. Traditional healing

The advantage of traditional healers was reported to be that they provided the reason why a particular illness befell a person at a particular time. Only traditional healers can treat the unnecessarily caused diseases mentioned above. The communication between patient and healer was also better because of shared language and background. Another advantage was that payment could be made in cash or kind and paid over a period of time.

Traditional treatment could include oral medicine and incision marks at the site of pain. The traditional healer also had links with ancestors and could deal with witchcraft.
The disadvantages of traditional healer were that they could be expensive and they were suspected by some people of stirring witchcraft and ill-feeling in the community. Some people also felt that their use of medicines was improper.

The above information was elicited during the questionnaire survey. In this context, it must be cautioned that the majority of respondents offered no opinions as to the advantages and disadvantages of traditional healers and the allopathic system.

Types and sources of health information

Three quarters of the respondents in the questionnaire survey (mostly urban and peri-urban) said that they had been exposed to some health information. Of these the majority had learned about hygiene, mother and child health and nutrition from a village health worker. Other sources of health information included health out-reach programmes, posters and personnel at the clinics, radio and T.V., friends and relatives. The subjects comprised family planning, immunization and herbal and proprietary medicines. The rational use of drugs was not a topic for health education.

DISCUSSION

The first objective of the research was to collect data on the existing popular medical belief system. The research results showed the relevance of such data if one seeks to understand people’s actions with regard to treatment. Diarrhoea, for example, turned out to be classified as unnaturally caused in cases with a sunken fontanelle. Although this is a sign of severe dehydration, which should immediately be treated at the health clinic, people perceived such symptoms to mean that a traditional healer should be visited. This cultural perception of diarrhoea has also been noted by other researchers in Zimbabwe and in Swaziland (Zoysa et al. 1984, Green 1985).

The association between certain colors of capsules and certain conditions, in this case blue capsules for sexually transmitted diseases, has also been observed in other cultures (Bledsoe & Goubaud 1985, NIchter 1980). Such local perceptions are, of course, particularly important when trying to understand self-medication patterns and problems of non-compliance with prescribed treatment. These are also relevant in the context of drug sharing among people. In most cultures, sexually transmitted diseases are considered shameful and embarrassing, and people often complain that there is no privacy in the public health care sector.

The extent of drug sharing is linked to the quality of services of the public health care sector. This leads us to the second research objective, the geographic and economic accessibility of drugs. The data showed that most people in the rural areas have to travel far to reach a health center or a hospital. Once they get there, they may find that the center has no drugs and that their journey has been in vain. In addition, the nurses at the rural health center may have a negative attitude to the questions and the problems of the patients. The importance of patient-provider interaction has been well documented (see for instance Kleinman 1980). As has been observed in other cultures, people’s treatment strategies are often determined not so much by their cultural perceptions of illness as by the quality of the health services available (Annis 1981). In this context, self-medication with drugs bought from stores or pharmacies becomes an attractive and logical alternative. An added advantage is that such stores and pharmacies are normally staffed by people who are socially and culturally close to their customers (Ferguson 1981).
The popularity of injections is another cross-cultural observation (Wyatt 1984, Reeler 1990). Injections are believed to work faster than other forms of medicine. What is interesting about the Zimbabwean data is that injections are perceived as diluted if they are administered at a public health clinic. Whether this perception is a consequence of the general negative reputation of the health centers or in fact is based on some measure of truth (sub-standard or expired or fake ampoules) is not known but it is an interesting research lead to follow up on. Overall, these data illustrate how researchers through studying medical technologies (injections, pills etc) can sometimes reveal more basic attitudes to medical systems. In the case of the Zimbabwean data there was, at least at the time of the research, not much trust in the public health care system from the consumers’ side.

The third objective of the research was the sources of people’s cognitive knowledge about drugs. The data seem to conclude that there is no formal education on the rational use of drugs. However, there must be quite a lot of informal information about drugs which is probably rational in the local cultural context. Unfortunately this does not seem to have been a major focus for the investigations.

A major aim of the research was to use the research results in ZEDAP’s training programmes. The plan was to design educational material on the rational use of drugs, based on the research data, and to test this material in a controlled experiment. At the time of writing this educational material has not yet been completed and no further information can therefore be given here.

CONCLUSION

The most important conclusions to be drawn from this research project are in the field of methodology. The study was originally designed to employ a mix of qualitative and quantitative methodologies but with the major focus on anthropological in-depth investigation. As it turned out, most of the time was spent on the survey of 900 respondents in the six different research sites. The justification for selecting such a big sample is not known. The result was, however, that when the time came for the in-depth phase, large group interviews were selected as the only feasible method in terms of time and money.

The purpose of qualitative methods is beyond anything else to put people at ease, to create a personal, relaxed relationship with the researcher. It is doubtful whether large group interviews, conducted by a panel of six, unfamiliar academics addressing questions to the group, achieved this purpose. However, comparatively more interesting data were generated by this method than by the far more time-consuming survey.

The survey was also complemented by individual reports from each of the interviewers in the research sites. These reports were to be based on participant observation, taking place simultaneously with the survey. The usefulness of these reports was limited reflecting a more general problem of the qualifications of the interviewers. Although these interviewers had some formal training, none of them were trained social scientists. Their observations were not of a sufficient quality, while conceptual and analytical skills were lacking.
LITERATURE LIST


