

Safety Warnings and First Aid Instructions on Nigerian Traditional Herbal Remedies: Are They Adequate?

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Abstract: An investigation into the adequacy of safety warnings and first aid instructions on the labels of 122 made in Nigeria herbal remedies was carried out. The results show that 6.6% of the herbal preparations had correct and appropriate information on their labels while another 6.6% carried legible print size. Only 9, 1.6, 3.3, 1.6% showed dosage, composition, expiration date and indication to consult expert if symptoms persist respectively. None of the herbal remedies described signs and symptoms of poisoning or recommended consultation of a poison control center in the event of poisoning.

Key words: Labeling • Nigeria • Herbal • remedies

INTRODUCTION

Increasing cost and distrust of modern western medical care in recent years has promoted the use of alternative and traditional therapies. Many of these regimens include some form of herbal or homoeopathic remedy that is not medically regulated for safety or efficacy [1]. In most developed countries herbal medicines are gaining popularity [2]. However, usually herbal medicines in most places are not regulated as medicines. Problems might arise as a result of the lack of adequate regulations, the pharmacological complexity of herbal products and the paucity of information on the pharmacological and toxicity of these compounds. Herbal medicines can be purchased from outlets ranging from health food stores to internet sites and thus crucial evaluation of their safety is relevant and important.

The downturn in the Nigerian economy coupled with growing interest and increased acceptability of herbal remedies in the USA and UK have given the Nigerian herbal medical practitioners their much sort recognition and assertion. The effect of this has been the multiplicity of market of these herbal remedies and increase in herbal preparations and formulations. The vociferous and aggressive marketing strategies which range from radio, television to motorcade announcement have created a tremendous awareness. The popularity and availability of these remedies has generated concerns

regarding the safety, efficacy and responsibility of practitioners using the Nigerian traditional remedies. The Nigerian market which is already flooded by the liberalization of trade is further congested by these herbal remedies with some meeting and some not meeting the requirements set by the Standard Organization of Nigeria (SON) and National Agency for Food and Drug Administration and Control (NAFDAC). It is a matter of concern that some cases of poisoning by unidentified chemicals and concoctions might have been due to inadequate or improper labeling requirements of these remedies [3, 4].

This study was aimed at assessing the correctness and adequacy of the safety warnings or precautionary warnings on the Nigerian herbal remedies.

MATERIALS AND METHODS

A total of one hundred and twenty two (122) samples were used for the study. The following label requirements were used to assess the adequacy of the precautionary warnings on these herbal medicines [5] viz:

- Name of the drug,
- Appropriateness/correctness of first aid instructions or warnings for instance, a precautionary statement such as don't drive or causes drowsiness is taken as useful and correct advice,

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Table 1: Result of label review

Parameter	Products meeting requirements	Percentage of products
Correctness of first aid instructions or warnings	8	6.6
Legibility of Print size	8	6.6
Correctness or otherwise of these warnings	0	0.0
Descriptions of signs of a poison control center in the event of poisoning	0	0.0
Recommended consultation of a poison control centre in the event of poisoning	0	0.0
Dosage	11	9.0
Composition	2	1.6
Expiration date	4	3.3
Consultation of expert/physician if symptoms persist	2	1.6

Table 2: Traditional nigerian remedies showing formulation, traditional use, method of preparation, where purchased and where manufactured

Name of the drug	Formulation	Label indications on traditional use	Method of preparation	Where purchased	Where manufactured
B-Success 28 plant	Powder	Antibiotic with aleo vera	Nil	Nnewi	Umoji, Anambra State
Operation sweep	Powder	Rheumatoid arthritis	Nil	Nnewi	Lagos
Aloe vera	Tablets	Antioxidant	Nil	Owerri	Aba
Zarausmacine	Powder	Antibiotic	Nil	Owerri	Aba
Virgy-virgy computer worm expeller	Powder	Worm expeller	Nil	Owerri	Aba
Dorasine powder	Powder	Typhoid fever, malaria, chestpain, stomach ulcer	Roots, flowers and leaves	Owerri	Aba
Man power sexual energy	Powder	Watery of sperm, low sperm count, diabetes	Nil	Owerri	Aba
U&Dee infection cleansing powder	Powder	Pianful menstruation, Gonorrhea, barrenness, waist problems	Nil	Owerri	Aba
U&Dee sweet bitter	Liquid	Typhoid fever, malaria, stomach pain scratches, weakness of organ	Nil	Owerri	Aba
Natural powder stone	Solid form	Malaria, hepatitis, internal heat, painful menstruation, rheumatism	Nil	Owerri	Aba
Chana black soap	Solid form	Rashes, ringworm, scabies, pimples	Nil	Owerri	Aba
Portugal antiseptic soap	Solid form	Skin infections, pimples, boils, preaky heat, lice in the hair, and body odour	Nil	Owerri	Aba
Edysol antiesptic soap	Sold form	Preaky heat, body odour, small pox, head lice, eczema	Nil	Owerri	Lagos
H-Nal	Powder	Hormonal imbalance	Nil	Owerri	Lagos
M-Reg	Powder	Hormonal regulation	Nil	Owerri	Lagos
Veinsrflocher	Powder	Cleanser	Nil	Owerri	Lagos
Diabor	Powder	Diabetes	Nil	Owerri	Lagos
C-Candi	Powder	Candida albicans	Nil	Owerri	Lagos
C-Cystra	Powder	Cyst	Nil	Owerri	Lagos
Firas	Powder	Fibroid	Nil	Owerri	Lagos
D-Diab	Powder	Diabetes	Nil	Owerri	Lagos
P-Pila	Powder	Pile	Nil	Owerri	Lagos
Infecta	Powder	Infection	Nil	Owerri	Lagos
Rinbacin forte	Powder	Bacterial & gastrointestinal diseases	Roots-50% Seeds-10% Bark-12% Herbs-20% Flowers-8%	Owerri	Lagos
Aloe vera cure formula	Powder	Malaria fever, typhoid fever, piles and stomach ulcer	Nil	Nnewi	Lagos

- Legibility of print size of these warnings and their strategic location on the products, correctness or otherwise of these warnings a casual statement such as keep out of reach of children is assumed to be partially correct and an instruction in a foreign language other than English is considered technical and confusing,
- Description of signs and full treatment of poisoning like emesis, haemoperfusion, gastric lavage and use of oral adsorbents such as activated charcoal or any specific antidote.
- Recommending consultation with poison control center or health professionals in the event of poisoning.
- Dosage,
- Composition,
- Expiration.

The total number meeting and not meeting these criteria and their percentages were calculated. In another analysis the method of preparation, place of manufacture, where purchased, label indications or traditional use, were all investigated. The formulation was also noted.

RESULTS

The results show that 6.6% of the herbal preparations had correct and appropriate information on their labels while another 6.6% carried legible print size. Only 9, 1.6, 3.3, 1.6% showed dosage, composition, expiration date and indication to consult expert if symptoms persists respectively. None of the herbal remedies described signs and symptoms of poisoning or recommended consultation of a poison control centre in the event of poisoning (Table 1). The result indicated that virtually all the samples used showed their names, traditional use, where purchased and where manufactured. Only 1.6% indicated the method of preparation (Table 2).

DISCUSSION

This study is apparently the first of its kind involving the made-in-Nigeria herbal remedies. Alderman *et al.* [6] in 1982 showed that inadequacy in product requirements occurred in 85% of reviewed labels. In 1992, Orisakwe showed that 23% of Nigerian made products (Pharmaceutical and Consumables) met the label requirements, only (6.6%) met this requirement in the present study [5]. There was only a casual mention of keep out of the reach of children in 0.82% of the remedies

with no mention of likely signs, symptoms and treatment in the event of accidental ingestion or overdose. This is considered partially helpful; an improvement on this should be inclusion of the aforementioned and treatment modality of poisoning.

The study showed that the places where some of these herbal drugs were manufactured were different from where they were purchased; this indicates that these drugs are no longer confined to rural area but mostly to urban centers. The method of preparation was only shown by 1.6% of samples studied, thereby indicating that some of these herbal drugs must have been adulterated and some even mixed with undeclared prescription drugs as reported by Ernst [2]. Contrary to the misperception that medicaments of natural origin are not harmful or dangerous, naturally occurring substances are most toxic and hazardous poisons known. In view of the fact that adulterants and natural substances can be present in toxic concentrations [7], the method of preparation of these remedies should be added to the information on the labels of these remedies.

The study revealed that none of the samples showed any first aid warnings, or description of signs of adverse effects and full treatment of poisoning in event of over dosage or any adverse effect. This portrays a great danger to public health as some of the traditional remedies have been reported to contain some toxic heavy metals [1, 8, 9]. Because the use of a variety of alternative remedies is increasing, physicians awareness of this potential source of heavy metal is essential when diagnosing conditions of uncertain etiology that have similarities to metal toxicity. The inadequacy of information seen on the labels of these herbal remedies is in agreement with our earlier findings on consumer/pharmaceutical products in Nigeria and in Nigerian spice [4, 5]. There is haphazard pattern of naming of these remedies as most names are derived from purported claims, named after the traditional practitioner, or locality where it is produced while some are given names of some microorganisms. In all, most of the names were in vernacular and local dialect of the people. This observation is also true of the survey made by Garvey and coworkers in 2001 [8]. Of the 1.6% that recommended consultation of expert or physician if symptoms persist, one of these in fact indicated that he is the physician or the medical professional that should be consulted. In spite of the poor hygienic conditions in which most of these herbal remedies were produced only 3.3% indicated the expiration date of their preparations. This is a danger to public health.

For protection of public health, consumers taking these medications should be warned of potential toxicities that may occur and stringent labeling requirements should be imposed. It is evident from the present investigation that more attention to labeling is imperative. We recommend an improvement in the information contained both on the labels and leaflets of these herbal preparations even if it is in the local vernacular of the people as seen on some beverages in the country. This responsibility falls on the Standard Organization of Nigeria (SON), National Agency for Food and Drug Administration and Control (NAFDAC) and the herbal practitioners. It is also advised that poison control centers should be established with a proper public education on the education on the role of such centers.

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