



Original Contribution

MARKETING RESEARCH OF THE EAST - WESTERN DRUGS USED FOR CURE OF COMMON COLD IN CHINA

P. Jurov

ABSTRACT

Traditional Chinese Medicine (TCM) drugs are widely used in China. A basic overview of the free market of drugs in cases of common cold is the main goal of this research. The researched group included students in a Medical University in China, Hefei. The main way of researching was through interview.

The results showed: well developed market of drugs for common cold. Some TCM drugs are animals or plants and are widely used as special nutrient supplements in China. Good Manufacturing Practice (GMP) rules are in use for generic (Western type) drugs. The TCM drugs are in process of quality research in order to acquire the level of GMP.

Conclusions: This kind of researches should be done more often, disease by disease, in order to compare TCM and Western type drugs to discover the real pharmacological value of the drugs. More work is required to get the GMP level to include TCM drugs in the international pharmaceutical market. In the case of common cold disease, the Western medicines have been preferred to TCM drugs in the researched group. Antibiotics are the most used Western type of drug.

Key Words: TCM drugs, GMP, market research, common cold

INTRODUCTION

Drugs in China are sold in several different kinds of stores. There are Western type of Pharmacies as well as TCM pharmacies (Picture 1), where the products are stored mostly by natural origin – herbs, animal or minerals. In some places, there are TCM centers where the services include preparation of the drugs at the moment of use. (Picture 2). In many TCM Hospitals, there is usually a special laboratory where the finished product is made - extract from herbal medicine or some other kind of medicine could be done and patient could receive the product in an hour.

There are big stores in China operated by foreign companies, such as Henderson, Hilton, Carrefour, where vast sales space is given to medical products. TCM drugs there are a small number of finished products. Cosmetics have their own place in big stores and special magazines. There are also

***Correspondence to:** Paul Jurov, pauljurov@yahoo.com, Sofia, 1 St. Georgi Sofiiski str., Alexandrovska, office tel: 3592 9230 287

centers such as a company stores only for medicines of individual manufacturers as Johnson and Johnson, Janssen and others.

One unusual medicine is very widely used in China. This is tea and it is in great use - every Chinese drinks at least 3-5 glasses every day both as a drink and as nutrient supplement. All public places – schools, universities, train stations, bus stations, and petrol stations have free boiled water that people could use to prepare tea. The tea herbs could be bought in special stores for tea (Picture 3).

In China, there is a big market for food supplements, but they are in a quite different form. Many natural products from plant or animal origin could be bought in the food market. The products are included in Chinese cuisine due to their health effect. Usually the products are in dried forms – especially the sea plants or sea animals – sea horst, back fins of the sharks or others. Many fruits are given also as a dried substance – peach, grape, bananas, date-palm and fig fruits. Many fish and oysters could be bought as dry products. Very often in China live animals that have a strong stimulus effect could be bought in the special market. Many farmers have special places for nurturing shells, frogs, and turtles.



Picture 1. TCM Pharmacy in China



Picture 2. TCM Centrum in Taiwan



Picture 3. Tea market. China Hefei, 2007 – photo by the author

On the pharmaceutical market of China, there are two basic possibilities to cure common cold – by drugs made by TCM manufacturer or by manufacturers that provide generic products (Picture 6).

On the TV programs, there are always advertisements of the medicines.

All manufacturers could carry out paid advertisements but the tradition in Chinese society gives advantages to TCM drugs on the market. The tradition in Chinese society provides education on Traditional Chinese medicine. Every Chinese hears or sees advertisements on herbal or animal source of new medicines about 10 times daily. Basically every Chinese has some knowledge about the basics of TCM theory - yin-yang relations, zhang-fu organs, The Meridians and collaterals of the Qi, points for influencing inside problems by pressing points on the body or using needles. The practice of using herbal and animal sources is also a tradition (1).



Picture 4. Live animals on the market in China: Water turtles – one of most used food tonic - China Hefei, 2006 – photo by the author



Picture 5. Live animals on the market in China: Large reptiles, used for food - China Hefei, 2006 – photo by the author

List of Products

Pharmaceutical materials and additives:

No.	Product name	Standard	CAS
1	Baclofen	USP26	1134-47-0
2	Allopurinol	USP27	315-30-0
3	Praziquantel	USP24	55268-74-1
4	Flunixin Meglumine	USP26	42461-84-7
5	Fosfomycin Calcium(+/-)	Enterprise Standard	26016-98-8
6	Nifruoxazide	EP5	965-52-6
7	Nifursol	USP24	16915-70-1
8	Carbadox	USP24	6804-07-5
9	Roxarsone 4-Hydroxy-3-nitrobenzenearsonic acid	USP24	121-19-7
10	Dimethyl-propiothetin	Enterprise Standard	
11	Potassium Di-formate	Enterprise Standard	
12	Sodium Butyrate	Enterprise Standard	156-54-7

Picture 6. Product List of the Nanjing Pharma Chemical - Company's web side (6)

The manufacturers of generic products are working under GMP (12) rules (Picture 6). As a standard they have the same documents for quality as these in use in Europe or USA.

TCM drugs still have problems with their GMP approval (2,5), because it needs to involve the financial add for researching pharmaceutical effect of drugs that already are on market. For the TCM drugs the authority haven't have done the same researches (Picture 7). The market of TCM drugs was greatly influenced after European Union (EU) asked its member countries to adopt the Traditional Herbal Medicinal Products Directive by August 2005. The directive regulates that manufacturers who export herbal medicines to the EU market must get the union's GMP (Good Manufacturing Product) certificate, product quality must comply with EU pharmacopoeia, and importers should have import licenses. (10)

Due to the complexity of TCM, medicine makers could hardly provide a clear description as Western medicine makers usually do, which makes the registration more difficult. By official information, it is expected until 2011 China to introduce the system of standards of quality for the TCM medicine (6).

Another problem is the use of different terminology in Chinese Medicine than West medicine. The Western type of doctor will be suspicious about drug value if the

pharmacology explanations are – “it will remove Qi stagnation and clearing fire”. This is a common explanation and it is using in the basic terminology in TCM. The symptoms, names of the diseases, explanations about curable effects have been done in different way, parallel to the existed terminology system used in Western medicine. The problem is coming from the difference in the education system used in both cases. This is one of the basic problems and together with absence of the Clinical trials is the main reason for not including the pharmacology valuable medicines in every day practice of the western medicine.(Picture 7)

Picture 7 Advertise of Nanjing Pharmaceutical (8)



1) Compound Gallus Domesticus Pills©:

With the effects of reinforcing vital energy, nourishing blood, eliminating fever brought on by deficiency of essence and blood, and stopping leucorrhea. It is used in the treatment of debility due to insufficient supply of blood, endogenous heat, general weakness, irregular menstruation, uterine bleeding and massive leucorrhea.

Over the last years the business reality has persuaded some of the drug makers to make some changes in the way of advertising. The description of medicines is changing a lot and it is made closer to GMP regulations. In the document below is pointed out the State FDA approval, which is absent from the documents for internal market (picture.7 and Picture 8).



[Li Xu Wang Xue Sai Tong Soft Capsule](#)

Picture 8 Drug Advertising 2009(9)

Description:

Product Name:"Lixuwang Xuesaitong Soft Capsule"

Ingredient:Panax Notoginseng Saponins(single active ingredient)

Indications: It has the similar effect with the Aspirin in prevention of ischemic of heart and cerebra

Rewards and qualification:

- 1.Approved as Class-4 new drug by State Food And Drug Administration in 1999
 - 2.Qualified as Green TCM by (China Chamber of Commerce for Import & Export of Medicines & Health Products) in 2003
 - 3.Approved as Protected Variety of Traditional Chinese Medicines in 2005
 - 4.listed in the catalogue of Quality and Price Traditional Chinese Medicine
 - 5 Got two rewards from Russia in 2006
 - 6.Got the rewards of Yunnan Famous Brand several times
- Market information:
Sales beyond 200 million in 20

Researching the uses of medicines in a year in a Medical University were done in order to bring the advertising factor down, because the students are looking for the medicines not according to advertisement, but their own medical knowledge (3)

MATERIALS AND METHODS

The research was conducted in China, Hefei, Anhui University of Traditional Chinese Medicine. By interviewing a large number of

students we investigated the market of the common cold medicines. We conducted a questionnaire in which through several simple questions we tried to find out the frequency of catching cold and the kind of medicine that has been used most frequently.

The disease researched was common cold. If any other illness occurred, we did not comment it in this research.

The use of the acupuncture method for curing common cold was not included. The students take TCM terminology as referred only to the herbal medicines. Acupuncture is a basic cure for face paralysis caused by cold (Picture 9). The special gymnastic – Qi gong and Tuina massage are not discussed by students, because there are part of every days student life, not a special measure for cure cold disease.



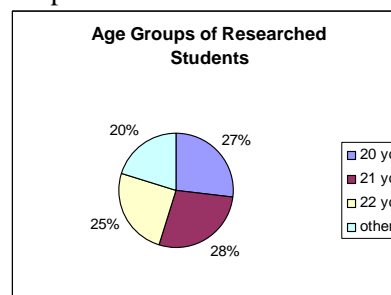
Picture 9. Acupuncture method for curing face paralysis caused by cold - Nanjing Railway Hospital – Nanjing 2000 – photo by the author

RESULTS

The researched students (100 people) have been selected from different classes in the same year in the same University and the same field of study. The males were 52 % and the females 48%.

From the researched students there are 80 % between the age 20 and 22 (20 years 27%, 21 - 28% and 22- 25 %).

Graph. 1



According to information by interview, students that catch Common cold disease less than three times per year are 59 %. Students that catch cold three or more times per year are 41%. (Table 1)

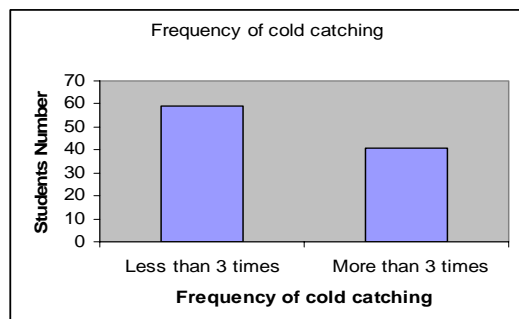


Table 1. Student's separation according of the frequency of the illness

This corresponded with the weather change in the local area - The disease is easier to be caught in spring and winter (31 % and 49 %) (Table 2).

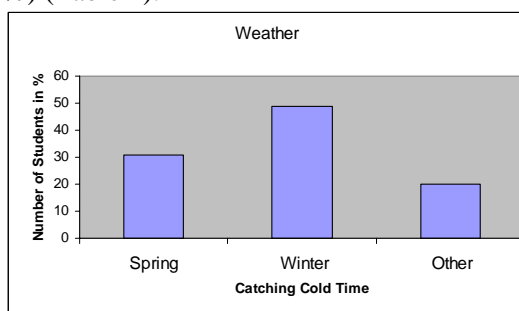


Table 2. Illness – weather connections

The duration of the illness was divided on two parts - "less than 7 days" - 70 % and more than seven days - 30 %. (Table 3). The question was asked in the way to check for some kind of further problems that could not be cured for the period.

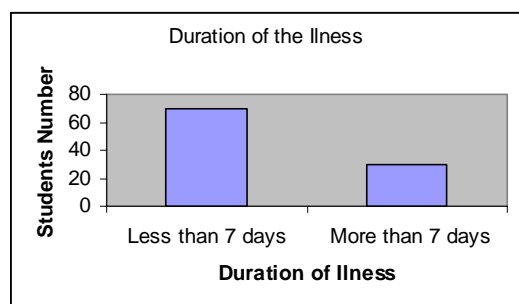


Table 3. Separation of the students by duration of the illness

As a reason for catching cold students pointed "not being warm enough while sleeping" - 59 % and "caught cold from

others"-31%. This was usually in a case of gripe situation (Table 4).

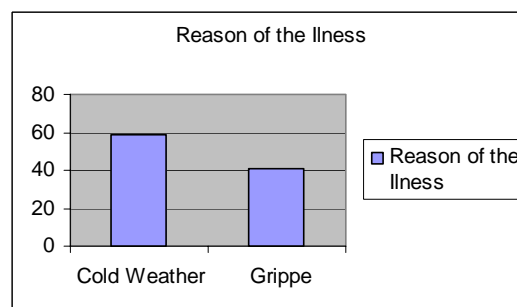


Table 4. Separation by main reasons of illness

For us the most important question was - Which kind of medicine you will choose to cure the cold? About 62 % of students pointed out Western medicine. About 26 % of all students say that they use antibiotics. TCM medicine has been used in 8 % and both Eastern and Western have been used 17% of the cases.

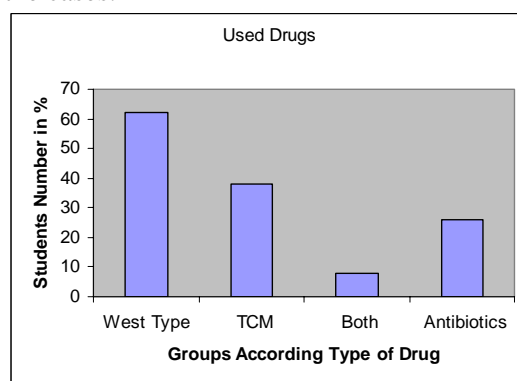


Table 5. Separation of the drug groups by quantity of used drugs

DISCUSSION

The market researches on the kind of drugs are new for China. There are problems arising from that – difficulties to explain the goal of interview, difficulties to involve companies in researching process, absence of statistics of used medicines by their type of origin.

The interviewed are students in a Medical University. Every student passed a medical examination once they began their education (first year), which means that they did not possess dangerous chronic diseases. Students passed a medical examination medical check before progressing to the next year of study. This means that the people in the research are basically in a good condition. The age – 80 % are between 20 - 22 gives also the sense that we are dealing with young, healthy

people. The separation by gender does not provide possibility to relate illness with gender. In that particular university there are a little more male students 52 %, which is different in teachers' universities that have 60 - 70 % female students.

The information about the weather-related illnesses should be understood in context of student's life in China. The students live in big dormitories – about 500 people per block. There are between six and eight students in one room. In this way, they have a very cheap education, but the downside is the ease of infection spread – 41 %. The students more often catch cold during weather change (31 %) in spring and because of the cold environment in winter– 49 %. This is related more to the national habits and standards and the way of living in this warm province. The average temperature is between 15 and 18°C, but some times the temperature goes down to 10 °C in the same day. Students are in class and cannot go back to dormitory during the lessons, so during the time of weather changes they are more likely to catch cold.

The question how they are curing themselves is much more interesting in light of their education. On the one hand those are the people with much more knowledge than the average Chinese about the Traditional Chinese Medicine drugs and Western type of medicine. Students who prefer Western medicine constitute 62%. From this number there are 26 % who use antibiotics. These results are very interesting. They should be understood in light of students' interest of the quicker curable effect of the drugs. This is the basic advantage of using West medicine. The more often used drug here is Panadol, which is produced in China under license agreement by several companies. The antibiotics are taken mainly to prevent pneumonia.

The students live in big societies thus making spread by air drops the main problem. Antibiotic provides quick relief from these illnesses. The university students pay for their education and cannot afford to be away from school for long period. After the second year, many of them search for part time jobs, thus good health is the ultimate condition to take up jobs. That is why many of them do not prefer Traditional Chinese Medicines. The main problems related with their choice were time for preparing the medicines and the price. Contrary to general opinion, the TCM drugs

are not cheap. They are given as a mixed herbal substance to the patient and after that in a special laboratory in the same hospital the herbs are extracted and prepared as a pharmaceutical form. Due to the large population, people wait for about 10 min to pay, 20-30 min to take prescription and another 30 min for pharmacists to prepare the extract. Time is very valued by young people and they always prefer the medicine that could be easily taken and get help immediately.

The law in China prohibits pharmacists from changing anything in the prescription without the knowledge of the doctor. In this way, the person should take his own decision for the type of medicines. If the case is common cold, antibiotics give the quicker effect and they are the biggest group of the Western type drugs in use. In practice this possibility is likely to be avoided, which means that there is no possible influence on the quality of pharmacy help of the patient.

The personal experience is important even in this group of very young people. In some answers we have found people that always cured the common cold with the same medicines – about 10 %. (3) This could be explained by the poorly-developed medical thinking in this group. They use the same TCM drug due to that reason. This could explain the use of the same antibiotic several times.

The use of acupuncture or massage for solving common cold health situations is widespread, but in our case the students do not provide information because the massage is provided by friends, not doctors and only acupuncture is the one that should be done in the hospital.

CONCLUSIONS

This research showed the well-developed market of drugs in China with presence of TCM and West medicines in pharmacies. The TCM market includes the use of herbs and many animals as nutrient supplements that are not in use in others countries. Their medical valuable is still not well known, because of the different terminology used in TCM.

The problem of choosing TCM or West medicine is more a personal decision than doctor's opinion. Even in China, where there is a tradition of using Chinese Medicine, and good social system for curing people, TCM

drugs are facing very hard competition by western type of drugs.

The disadvantages of TCM drugs that students have pointed out were price and time to prepare for usage.

Most often used West drugs were antibiotics, Panadol and Aspirin.

The principles of the Good Manufacturing Practice are operating in China for generic drugs. The TCM drugs still do not have enough clinical researches.

Cooperative work between China and others countries should be done to include many of the TCM drugs in world health pharmacy lists. The vast opportunity of the alternative medicine should be understood and used especially in less researched medical herbs, which could provide more biological active substances for curing diseases as cancer, MS and Alzheimer.

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