# PRESCRIPTION FOR SELF-MEDICATION: AN EMPIRICAL INVESTIGATION OF CONSUMERS IN AHMEDABAD CITY

#### Dr. Jasmin Padiya

#### ABSTRACT

Self-medication is quite prevalent in India. When it comes to treating common ailments such as coughs and colds, fever, heartburn and aches and pains, more Indians are using more types of non-prescription, over the-counter (OTC) medicines than ever before. Self-medication is like a two edge sword with potential benefits as well as threats. This paper discusses concepts of selfmedication and reviews existing research in area. An attempt has been made to gauge patient awareness about self-medication and buying behaviour. Empirical findings are discussed to draw marketing lessons.

Keywords: Self- medication, India, Ahmedabad, Awareness, OTC.

#### I. INTRODUCTION

Self-medication is the treatment of common health problems with medi-cines especially designed and labelled for use without medical supervision and approved as safe and effective for such use. (WSMI, 2012)

In practice self-care includes the actions people take to stay fit and main¬tain good physical and mental health; meet social and psychological needs; prevent illness or accidents; avoid unnecessary risks; care and self-medicate for minor ailments and long-term conditions; and maintain health and well-being after an acute illness or discharge from hospital. (WSMI, 2012)

Self-medication with OTC medicines is sometimes referred to as 'responsible' self-medication to distinguish this from the practice of purchas¬ing and using a prescription medicine without a doctors' prescription. This is irresponsible (and potentially even dangerous) 'self-prescription', and has no place in self-care or (responsible) self-medication. (WSMI, 2012)

According to the Consumer Healthcare Products Association (CHPA), there are more than 100,000 OTC drug products on the market today encompassing about 1,000 significant active ingredients of these products, more than 700 contain ingredients and dosages that were available by prescription less than 30 years ago. (BEMEDWISE, 2012) In India, the import, manufacture, distribution and sale of drugs and cosmetics are regulated by the Drugs and Cosmetics Act (DCA) and its subordinate legislation, the Drugs and Cosmetics Rules (DCR). This legislation applies to the whole of India and to all sorts of medicines (e.g. Allopathic, Ayurvedic, Homeopathic, etc.) whether imported or made in India. (Gupta, Gupta, & Patel, 2012)

The legislation is enforced by the Central Government (Ministry of Health & Family Affairs) in New Delhi, which is responsible for its overall supervision. The OTC Committee of the Organization of Pharmaceutical Producers of India (OPPI) is working towards the promotion of responsible self-medication with a view to growing the OTC sector.

It is aiming to get regulatory support for issues such as the accessibility of household OTC remedies and increasing the awareness of the importance of responsible self-medication with the general public and the Government.

India currently ranks 11th in the global OTC market size. It is estimated that it will reach 9th position within five years. Currently the Indian OTC market (including frank OTC medicines which are advertised and deemed OTC brands, and ones that are non-advertised or Rx marketed but with large OTC sales component) is estimated to represent approximately USD 1,813 million (euro 1362 million) with an annual growth rate of 10.7% at the end of calendar year 2009. (OPPI, 2012)

Kindly refer to Table-1

# **II. LITERATURE REVIEW**

Self-medication is the use of non-prescription medicines by people on their own initiative (Jerome A. Reinstein, 1999). Another scholar defines self-medication is the treatment of common health problems with medicines especially designed and labelled for use without medical supervision and approved as safe and effective for use . (WSMI REPORT, 2010)

In the world, especially in economic deprived communities self-medication is practiced extensively. If self-medication practiced correctly, it has a very good or positive impact on individual and health care system. PRESCRIPTION FOR SELF-MEDIC..

Padiya

97

Self-medication allows patients or individuals to take responsibility and build a confidence to handle their own health and care themselves by promoting self-empowerment (Almasdy & Sharrif, 2011).

Self-medication include purchase of medicines without a prescription or by resubmitting old prescriptions to purchase similar medicines, sharing medicine with relatives or members of one's social circle or using left over medicine stored at home (Sumoni Susan Samuel, 2011).

This urge of self-care, sympathy towards family members in lack of health services, sickness, poverty, misbelieves, ignorance, availability and advertisement of drugs in other than drug stores or pharmacy retail stores are responsible for growing trend of self-medication. So common reason for self-medication are economic constrains, previous experience of illness and inaccessibility of health care facilities (Mohamed saleem T.K\*, 2011).

Self-medication and health consciousness pattern among different populations are influenced by many factors like age, gender, education, family, society, law, availability of drugs, exposure to advertisements and nature of illness. Self-medication nature and extent varies in different cultural contexts, social and educational influences may be more than the influence of medical practice (Hussain, et al., 2011).

Self-medication enhanced by increasing literacy and encouraged also that have self-reliance for curative, preventive, primitive and rehabilitative care. In developing countries, prevalence of self-medication is in the range of 12.7% to 95%. Especially In India, wide variation has been reported. For example in north India and south India, prevalence of self-medication is 87% and 71% respectively (Pushpa R Wijesinghea, 2012).

"a desire to take medicine is perhaps the great feature which distinguish man from animals" said by William Osler in such developing countries like India, wide range of drugs coupled with inadequate health service easily available that result in increased proportions of drugs used as self-medication compare to prescribed drugs.

Some problems with self-medication are based on self-diagnosis and products are mostly designed and intended to only treat the symptom of minor problem until it goes away on its own. (Sumoni Susan Samuel, 2011).

Some problems that majorly occur by self-medication are wastage of resources, increased resistance of pathogens and generally entails serious health hazards such as adverse reaction and prolonged suffering. So, WHO has emphasized that self-medication must be correctly taught and controlled (Rohit K Verma, 2010).

## A. About OTC

Medicines for self-medication are often called 'non-prescription' or 'over the counter' (OTC) and are available without a doctor's prescription through pharmacy/pharmacies. And these medicines are also available in super markets and other outlets in some countries. Increasing availability of non-prescription medicines may encourage patients to believe that there is a drug treatment for every ailment. (Gupta, Gupta, & Patel, 2012)

## B. Over The Counter (OTC) Medicine

The OTC Committee of the Organization of Pharmaceutical Producers of India (OPPI) is working towards the promotion of responsible self-medication with a view to growing the OTC sector. It is aiming to get regulatory support for issues such as the accessibility of household OTC remedies and increasing the awareness of the importance of responsible self-medication with the general public and the Government. (Gupta, Gupta, & Patel, 2012)

OTC medication can be advertised directly to the public. While there is a formal system in place to approve the content of advertisement, their content can nonetheless appear to overstate benefits and omit some factor like price. Advertisement lacked the information that necessary for consumers to make informed choices (Blenkinsopp & Bond, 2005).

When people use prescription medicine for longer time, and consider it safe and effective, to have low potential for misuse/abuse, and average consumer have minimal problems with it, manufacturer of that medicines can apply to have it deregulated to OTC status, and if this status is proved or granted, the medicine can be sold without prescription (Lo, 2006).

## III. METHODS

A questionnaire based cross-sectional study was carried out for citizen of Ahmedabad city, Gujarat. In Non-probability sampling technique there is no specific method available for sample size calculation, hence conveniently selected 300 people in different age groups (teen agers to senior citizens) who PRESCRIPTION FOR SELF-MEDIC..

Padiya

99

practices self-medication and buys OTC medicine were subjected to survey by researcher to answer about prevalence of self-medication and OTC medicines.

Consumers who bought drugs from pharmacy store without prescription and who regularly follow the prescribed medicine by doctors to purchase are included in the study; the draft questionnaire was prepared for customers based on purchase habit of OTC medicine and self-medication awareness. It consist specific questions regarding knowledge about dose, duration and storage condition of OTC drugs. Contents of the questionnaire included demographic details, how often customers practice self-medication, source from where they came to know about choice of drug, reasons for practicing self-medication, satisfaction level by self-medication, brand awareness and side-effect of OTC medicines. Survey was limited to self-medication practice with non-prescription medicines. The search result has been selected based on criteria that elaborate the self-medication practice with non-prescription medication among the citizen of Ahmedabad city.

## **IV. RESULTS**

Respondents' Profile

Kindly Refer to Table-2

Result indicates more no. of male respondents are surveyed. This phenomenon may be attributed that in Indian society still shopping of medicines is done by males.

Kindly refer to Table-3 Respondents' Profile-Age

Large no. of medicine shoppers are in age group of 20-40. This group is more likely to purchase medicines for their children as well as parents.

Kindly refer to Table 4: Respondents Profile - Education Since this survey is carried out in urban area, majority of the respondents are well educated.

Kindly refer to Table 5: Respondents Profile - Occupation Samples are well representing across all occupations. Refer to Table 6: Self-medication in Last Two Months Result indicates significant prevalence of self-medication. About two third of sampled population practices self-medication.

Kindly refer to Table 7: Preferred Type of Medicine

Allopathic is most preferred category of medicines for self-medication. Prevalence of self –medication in Allopathic may be attributed to advertisements of OTC and poor implementation of law for selling prescription medicines.

#### Refer to Table 8: Source of Awareness

Data indicates that majority of the patients relies on old prescription for selfmedication. A large group of patients also consult pharmacist/medicine sales person on the counter for purchasing medicine. Small number of patients use media as source of information; however it is restricted to only OTC medicines.

Refer to Table 9: Reason for Self-medication

A majority of patients are having perception that for minor illnesses they do not require to consult a doctor and hence they opt for self-medication. Few patients attributed self-medication to lack of time and consulting fees of doctors.

Refer to Table 10: Self-medication for Different Ailment.

Kindly refer to Table 11: Duration for Consume OTC Medicines

Majority of patients discontinue medications as soon as they get rid of symptoms of illness resulting into drug resistance in case of antibiotics. A quarter of patients follows drug regime as per guideline.

Kindly refer to Table 12: Satisfaction for Symptoms Relief

Self-medication is supported by self-fulfilling feelings as well. None of the selfmedicating patient is dissatisfied and hence, this habit to be continued.

Kindly refer to Table 13: Brand Awareness of OTC Medicines

OTC medicines brand awareness is high; still a significant no. of patients depends on friends, relatives or shopkeeper. (In India all patients are not attended by pharmacist at medical store).

Kindly refer to Table 14: Awareness about Appropriate Dose of OTC Medicine Kindly refer to Table 15: Appropriate Duration of OTC Medicine Majority of respondents are not aware about proper dose and duration medicine. This finding highlights peril of self-medication.

Kindly refer to Table 16: Side-effect after Self-medication Self-medication with OTC medicines is safe. As the table shows the result that only 7.33% respondent had a problem after taking OTC medicines on their own.

Kindly refer to Table 17: Consult Doctor for Side-effect

PRESCRIPTION FOR SELF-MEDIC..

Majority of respondents believe that in case of any side effect, it is extremely important to consult a doctor.

## Kindly refer to Table 18: Self-medication is Valid or Not

Most of the people believe that self-medication of OTC medicines is valid and they agree with the statement that "purchase of an over the counter drugs without prescription is valid". People buy medicines on their own and consume it because of awareness of medicines related to disease. Few respondents are not satisfied with self-medication, they are very conscious about their heath and they prefer every time to consult doctor.

## Kindly refer to Table 19: Suggest OTC Medicine to Other

Regarding experience of OTC medicine for relief of minor illness, people gave mixed response.. Many of them want to share their experience to use same drug for same illness that other people suffered. Nearby half respondent (48.33%) people don't want to suggest any medicines to other people for self-medication.

## V. CONCLUSION

Self-medication habit of Indians offers tremendous marketing opportunity especially for allopathic OTC marketers. In Indian context, pharmacist plays a vital role in push of OTC products as many consult him/her before buying medicines. Significant brand awareness for OTC suggests that brand building exercise is useful in long run for OTC marketers. Patients should gather information from reliable sources related to proper dosage and duration of therapy before practicing self-medication. Majority of the persons who indulge into self-medication considers that even buying prescription medicines without prescription is legal and good for health; so government must come out with a campaign of do's and don'ts on 'Self-medication'. Self-medication prevalence is very high and to educated customers about hazards of self-medication is need of the hour.

## VI. REFERENCES

- 1. Almasdy, D., & Sharrif, A. (2011). Self-Medication Practice with Nonprescription Medication. Archives of Pharmacy Practice, 2(3), 95-97.
- BEMEDWISE. (2012). The Attitudes and Beliefs About over-the-counter medicines. Retrieved September 2012, from www.bemedwise.org: http://www.bemedwise.org/survey/summary\_survey.pdf
- 3. Blenkinsopp, A., & Bond, C. (2005, may). Over the counter medication. (N. Jayesinghe, Ed.) british medical association and board of science, 1-48.

- Gupta, V., Gupta, C., & Patel, J. (2012, April-June). Assessment of Awareness and Attitudes towards Over-the-Counter (OTC) Drugs. Research Journal of Pharmaceutical, Biological and Chemical Sciences, 3(2), 1037-1041.
- Hussain, S., Malik, F., Ashfaq, K. M., Parveen, G., Hameed, A., Ahmad3, S., .
   Saeed, T. (2011). Prevalence of self-medication and health-seeking behavior in a developing country. African Journal of Pharmacy and Pharmacology, 5(7), 972-978.
- Jerome A. Reinstein, A. (. (1999, June 10). Database. Retrieved October 9, 2012, from www.fip.org: http://www.fip.org/www/uploads/database\_file.php?id=241&table\_id=
- Lo, Y.-N. (. (2006, August 30). CONSUMERS' EXPECTATIONS OF OVER-THE-COUNTER (OTC) MEDICINES. Saskatoon: University of Saskatchewan.
- 8. Mohamed saleem T.K\*, C. C. (2011). http://scholarsresearchlibrary.com/archive.html. Retrieved october 8, 2012, from www.scholarsresearchlibrary.com: http://scholarsresearchlibrary.com/DPL-vol3-iss1/DPL-2011-3-1-91-98.pdf
- OPPI. (2012). ORGANISATION OF PHARMACEUTICAL PRODUCERS OF INDIA. Retrieved September 2012, from www.indianoppi.com: http://www.indiaoppi.com/IndiaOTCpharmaProfile2011.pdf
- 10. Pushpa R Wijesinghea, R. L. (2012). Prevalence and predictors of self-medication in a selected urban and rural district of Sri Lanka. WHO South-East Asia Journal of Public Health, 1(1), 28-41. Retrieved october 7, 2012, from www.searo.who.int:

http://www.searo.who.int/LinkFiles/SEAJPH\_SEAJPH-1-5.pdf

- 11. Rohit K Verma, L. M. (2010, january-march). Evaluation of self medication among professional students in north india. Asian Journal of Pharmaceutical and Clinical Research, 3(1), 60-64.
- Sumoni Susan Samuel, A. P. (2011, june 24). Assessment of Self medication among Patients Attending Community Pharmacies in Erode, India. International Journal of Pharmacy and Pharmaceutical Sciences, 3(4), 258-262.
- 13. WSMI. (2012). responsible self-care and self-medication. Retrieved September 2012, from www.abimip.org: http://www.abimip.org.br/uploads/material\_de\_apoio/1296056417\_792.pdf
- 14. WSMI. (2012). self-medication. Retrieved November 3, 2012, from www.wsmi.org: http://www.wsmi.org/faqs.htm
- 15. WSMI REPORT. (2010). Responsible self-care and self-medication A Worldwide Review of Consumer Surveys. Ferney-Voltaire: WSMI.

#### TABLES

Table 1- Main self-medication product groups

Category	2005	2006	2007	2008	2009
(Sales in US\$	1243.4	1371.4	1491.0	1638.9	1813.4
Million) <b>OTC</b>					
sales - India					
Analgesics	178.8	192.9	201.7	223.4	258.6
Cough, Cold &	227.2	250.7	269.7	295.1	318.1
Allergy					
Gastrointestinal	231.4	256.7	281.0	301.2	332.6
Vitamins,	447.1	494.3	538.6	583.0	634.5
Minerals &					
Supplements					
Dermatological	144.1	160.3	181.9	212.4	236.5
Lifestyle OTCs	14.8	16.4	18.1	23.9	33.1

(Source: Nicholas Hall & Company, India, DB6 2010 – 1US\$ = INR.46.54)

## Table 2: Respondents Profile - Gender

Gender	Frequency	Percent
Male	194	64.7
Female	106	35.3
Total	300	100.0

## Table 3: Respondents Profile - Age

Age	Frequency	Percent
<20	13	4.3
20-40	179	59.7
40-60	94	31.3
>60	14	4.7
Total	300	100.0

Education	Frequency	Percent
School	50	16.7
Graduate	154	51.3
Post- Graduate	83	27.7
None	10	3.3
Others	3	1.0
Total	300	100.0

Table 4: Respondents Profile - Education

# Table 5: Respondents Profile - Occupation

Occupation	Frequency	Percent
Govt. Job	43	14.3
Private Company	57	19.0
Business	43	14.3
None	123	41.0
Others	34	11.3
Total	300	100.0

# Table 6: Self-medication in Last Two Months

Self-medication in		
Last Two Months	Frequency	Percent
Yes	200	66.7
No	100	33.3
Total	300	100.0

# Table 7: Preferred Type of Medicine

Preferred Type of Medicine	Frequency	Percent
Allopathic	247	82.3
Ayurvedic	21	7.0
Homeopathy	5	1.7
Others	1	.3
Allopathic and Ayurvedic	20	6.7
Allopathic and Homeopathy	5	1.7
Allopathic, Ayurvedic and Homeopathy	1	.3
Total	300	100.0

# Table 8: Source of Awareness

Source of Awareness	Frequency	Percent
Pharmacist	160	53.33
Doctor	218	72.66
Television Advertisement	118	39.33
Medical Representative	16	5.33
Drug Literature	22	7.33
Newspaper	10	3.33
Others	1	0.33

Padiya

Reason for Self-medication	Frequency	Percent
Lack of Time	19	6.3
lack of Money	11	3.7
Due to Minor illness	181	60.3
Awareness about the Drugs related to illness	51	17.0
Others than Specify	7	2.3
Lack of Time and Due to Minor illness	7	2.3
Lack of Time and Awareness about the Drugs related to illness	12	4.0
Lack of Money and Awareness about the Drugs related to illness	1	.3
Due to Minor illness and Awareness about the Drugs related to illness	8	2.7
Lack of Money and Due to Minor illness	3	1.0
Total	300	100.0

## Table 9: Reason for Self-medication

## Table 10: Self-medication for Different Ailment

Self-medication for Different Ailment	Frequency	Percentage
Fever	211	70.33
Pain	195	65.00
Headache	192	64.00
Common Cold	109	36.33
Backache	24	8.00
Diarrhoea	52	17.33
Constipation	27	9.00
Weakness	63	21.00
Others	5	0.16

Duration for Consumer- OTC		
Medicines	Frequency	Percent
As per Dose	77	25.7
Till Symptoms relief	163	54.3
For longer Duration	47	15.7
For Prophylaxis	11	3.7
Others than Specify	2	.7
Total	300	100.0

Table 11: Duration for Consume OTC Medicines

## Table 12: Satisfaction for Symptoms Relief

Satisfaction for Symptoms Relief	Frequency	Percent
Neutral	27	9.0
Satisfied	217	72.3
Highly Satisfied	56	18.7
Total	300	100.0

# Table 13: Brand Awareness of OTC Medicines

Brand Awareness of OTC Medicines	Frequency	Percent
Yes	113	37.7
No	187	62.3
Total	300	100.0

Table 14: Awareness about Appropriate Dose of OTC Medicine

Appropriate Dose of OTC Medicine	Frequency	Percent
Very Poor	19	6.3
Poor	36	12.0
Neutral	113	37.7
Good	103	34.3
Very Good	29	9.7
Total	300	100.0

Padiya

Appropriate Duration of OTC Medicine	Frequency	Percent
Very Poor	15	5.0
Poor	44	14.7
Average	103	34.3
Good	112	37.3
Very Good	26	8.7
Total	300	100.0

Table 15: Appropriate Duration of OTC Medicine

## Table 16: Side-effect after Self-medication

Side-effect after Self-medication	Frequency	Percent
Yes	22	7.3
No	278	92.7
Total	300	100.0

Table 17: Consult Doctor for Side-effect

Consult Doctor for Side-effect	Frequency	Percent
Neither Important nor Unimportant	3	1.0
Important	40	13.3
Very Important	143	47.7
Extremely Important	114	38.0
Total	300	100.0

Table 18: Self-medication is Valid or Not

Self-medication is Valid or Not	Frequency	Percent
Strongly Disagree	30	10.0
Disagree	60	20.0
Neither	33	11.0
Agree	140	46.7
Strongly Agree	37	12.3
Total	300	100.0

Suggest OTC Medicine to Other	Frequency	Percent
Yes	155	51.7
No	145	48.3
Total	300	100.0

## Table 19: Suggest OTC Medicine to Other

## ABOUT AUTHOR



**Dr. Jasmin Padiya** is currently working as Associate Professor – Marketing Area with GLS Institute of Technology (MBA Programme) affiliated with Gujarat Technological University. Dr. Padiya is having 4 years of industry experience in pharmaceutical sales, brand management and training area. Dr. Padiya is teaching marketing related subjects to post graduate student since 8 years. He has authored and published several research articles in journal of national and international repute.

Padiya