

**ROLE OF SOURCES OF INFORMATION AND EXTENT OF THEIR INFLUENCE ON
THE BUYING DECISION RELATED TO OTC HERBAL PAIN RELIEVERS: AN
EMPIRICAL ANALYSIS**

DR. SANTOSH KALABHAU APTE

Associate Professor

Zeal Education Society's

Zeal Institute of Business Administration, Computer Application & Research (ZIBACAR), Pune

DR. AMOD MARKALE

Director

Zeal Education Society's

Zeal Institute of Business Administration, Computer Application & Research (ZIBACAR), Pune

[1] INTRODUCTION

The context in which an individual lives is of great importance for both his/her health status and quality of life. It is increasingly recognized that health is maintained and improved not only through the advancement and application of health science, but also through the efforts and intelligent lifestyle choices of the individual and society. Self-care is one solution available in case of minor illness. Self-care is the action individuals take for themselves and their families to stay healthy and take care of minor and long term conditions, based on their knowledge and the information available. The benefits of self-care to society are empowered patients with higher self-esteem, improved wellness, and longer life expectancy and reduced use of healthcare services. People should be given the information, education and tools they need to become more proactive in their healthcare and more confident to take good care of themselves. Health professionals, not least doctors and pharmacists, also have an important role in encouraging self-care. Encouraged self-care is

expected to have a healthy population of the country which will be helpful to redeploy scarce resources in primary areas.

Medicines that require a doctor's prescription are called prescription products (Rx products). Medicines for self-medication are called OTC (Over the Counter) and are available without a doctor's prescription through pharmacies. In some countries OTC products are also available in supermarkets and other outlets. Due to technological advances, and health information explosion, it has made it possible to improve access to information that is more relevant and more useful to the end user. Consumers now have more sources of information to take an active role in their health care, and they are using them.

1.1 Nonprescription medicines or Over The Counter (OTC) Indian Regulatory Framework

'OTC Drugs' are those drugs that are legally allowed to be sold 'Over the Counter', i.e. without the prescription of a Registered Medical Practitioner. In India, though the phrase has no legal recognition, all the drugs that are not included in the list of 'prescription only drugs' are considered as non-prescription drugs (or OTC drugs). Prescription-only drugs are those medicines that are listed in *Schedules H and X* appended to the Drug and Cosmetics Act & its Rules. Drugs listed in *Schedule G* (mostly antihistamines) do not need prescription to purchase but require the following mandatory text on the label: "Caution: It is dangerous to take this preparation except under medical supervision". Drugs falling in these 3 schedules are currently not advertised to the public under a voluntary commitment by the pharmaceutical industry. Currently, non drug-licensed stores (e.g. non-chemists) can sell a few medicines classified as 'Household Remedies' listed in *Schedule K* of the DCA&R in villages whose population is below 1 000.

OTC proprietary drugs registered as 'Ayurvedic Medicines' (traditional Indian medicines containing natural / herbal ingredients) are also regulated by the DCA and DCR. However, as they do not require a drug license they can be sold by non-chemists. Some of the top OTC brands in India (e.g. Vicks VapoRub, Amrutanjan Balm, Zandu Balm, Iodex, Moov Pain Cream, Vicco Turmeric Cream etc.), are registered as 'Ayurvedic Medicines' because of their plant-based natural active ingredients. There is no price control on 'Ayurvedic Medicines'.

1.2 Over-the-Counter Drugs (OTC) Global Market

The global over the counter drugs market was valued at USD 303.51 billion in 2018, and it is estimated to be valued at USD 491.02 billion in 2024, witnessing a CAGR of 8.5%. The growth propelling factors of this market are product innovations, high penetration in the emerging market, favorable regulatory framework, and inclination of pharmaceutical companies toward OTC drugs from Rx drugs.

Over-the-Counter Drugs (OTC) Indian Market Scenario

The India OTC market was valued at USD 4611.88 million in 2018, and it is expected to reach USD 10229.99 million by 2024, with an anticipated CAGR of 14.20% during the forecast period, 2019-2024.

The key factors propelling the growth of the Indian over-the-counter drugs market are the shift in consumer attitude toward self-medication, product innovations, and inclination of pharmaceutical companies toward OTC drugs from RX drugs.

India is one of the emerging markets for OTC drugs and offers significant growth potential for the industry. The market is growing in India due to the increasing healthcare expenditure, unhealthy dietary habits, expanding population, and growing healthcare awareness.

The increasing disposable income of people, along with a shift in the consumer attitude toward self-medication and increasing geriatric population are the two major factors driving the overall market in the region. Thus, the increasing awareness about the cost-effectiveness of self-medication and OTC medicines is also a crucial factor fueling the market growth.

1.3 Sources Of Information And Their Role In Buying Behavior

In the basic model of consumer buying behavior there is an important stage of information seeking. The consumer identifies sources of information to which he/she seeks all the information related to the product or services he/she plan to buy/utilize. With socio-economic changes and technological advancement consumer buying behavior has been affected by the to the sources of information.

[2] Literature Review

The literature review helped the researcher in identifying the gaps that exist between past research, present scenario and probable outcomes of the study. It was impertinent that Literature related to:

- Sources of Information and Their Roles

- Marketing of OTC
- Herbal Medicine
- Extent of Influence on the Buying Decision, be reviewed with intentions of studying their implications on marketing efforts.

3.5 Research Gaps

After reviewing the above literature, researcher was able to find research gaps which are stated below:

- Lot of work has been carried out in the field of influence of sources of information in buying of OTC products however specific product category herbal pain relieving products was remained little researched area.
- There was need to study categorization of sources of information.
- The literature review lead the researcher to identify gap related to rating of sources of information while purchasing OTC herbal pain relieving products.

4. Research Methodology

4.1 Research Objectives

Based on gaps identified following objectives for the study was formulated:

- 1) “To find different sources of information that influence the buying decision related to OTC herbal pain relieving products.”
- 2) “To evaluate the criterion on which the consumers rely for making their purchase decision regarding OTC herbal pain relieving products.”
- 3) “To rate the different sources taken into consideration by the consumers while deciding OTC herbal pain relieving products.”

4.2 Research Design

The intention of the researcher was just to examine the relationship between these variables and not to establish any causal relationship. Descriptive research design was thought to be most appropriate design.

4.2.1 Defining Universe

For this study the target population was defined as individual consumers of OTC herbal pain relieving products and who are above 18 years of age, residing in Pune and Pimpri-Chichwad city, the OTC herbal pain relieving products at least once have used, irrespective of gender, income and occupation.

4.3.2 Determination of the Sample: Sampling Technique

As it was observed that the products chosen for the study, are common and basic and are used by almost everybody in the entire population and the results derived would not vary from one segment or other segment within the population

Sample Size: The sample of '828'. Considering population of the Pune and Pimpri – Chinchwad city and OTC herbal pain relieving products user base, final sample size of '828' OTC herbal pain relieving products users was arrived. The sample size was thought to be sufficient for this type of study to arrive at conclusive findings that could be generalized.

4.3.3 Method– Survey Method

- Survey method was adopted for this study. The nature of study demanded probing into the minds of respondents in order to collect data related to the opinion, beliefs and attitude was surveyed. Survey has specific advantages in such type.

- **Data Collection**

In this study researcher used primary as well secondary data. Primary data was collected from the individual consumers who used OTC herbal pain reliever products, through structured questionnaire designed by the researcher whereas the *secondary data* collected from various sources. The different sources for the secondary data used by the researcher in this study were: Internet, Magazines, Publications of central /state Government, Past records and documents related to topic of the study. The researcher had gone through pool of secondary data available and reviewed number of thesis, journals & reports published at international and national level till date which was related to consumer buying behavior, OTC, herbal pain relievers, sources of information for medicine, extent of influence of information sources on consumer.

5 Finding and Discussion.

Table No.01 Cross Tabulation of Educational Qualification and Sources of information

Sources of information	Educational Qualification				
	UP to SSC	SSC	HSC	Graduate	Post-Graduate
Pharmacist	100%	100%	75%	43%	40%
Advertisements	100%	100%	65%	63%	25%
Labeling and Packaging	0%	15%	40%	33%	5%
Friends along with you	0%	100%	6%	43%	19%
Display, Display stands, Dummy Packs	0%	100%	64%	22%	0%
Family member along with you	100%	100%	40%	19%	22%
Doctor	0%	15%	16%	54%	40%

- Table No.01 clearly indicates that, the respondents, who were having educational qualification up to SSC and SSC preferred pharmacist as the most influencing source of information. It is noted that as educational qualifications increase the influence of pharmacist on number of respondent decreases.
- As in case of pharmacist, the same trend is noticed in case of advertisements. As education increases the influence of advertisement on number of respondent decreases.
- In case of Doctor as source of information, as education increases the influence of Doctor on number of respondent increases.

5.1 Creditability of sources of information

The Creditability of sources of information was calculated as

- $Creditability = Trustworthy + Expertise + ease\ of\ availability\ of\ information$
- From the table No. 02 it was observed that pharmacist was the most Trustworthy, Expertise, easily available source of information when it comes to OTC herbal pain relieving products. Secondly advertisement was the most Creditable source of information.

Table No.02: The summery of creditability score of information sources.

Sources of information	Trustworthy	Expertise	Easily available	Creditability of sources of information
Pharmacist	579	535	486	1600
Advertisements	141	172	175	488
Labeling and Packaging	21	00	00	21
Friends along with you	41	39	00	80
Display, Display stands, Dummy Packs	13	51	19	83
Family member along with you	12	31	148	191
Doctor	21	00	00	21

5.2 Rating the different sources taken into consideration by the consumers while deciding OTC herbal pain relieving products.

- Researcher had calculated weighted score based on frequency multiplied by the rating given by respondent, to each of the source to arrive at the ratings and ultimately the ranks

Table No. 03: Weighted Score of Primary sources of information.

Primary sources of information	Weighted Score	Percentage	Rank
Pharmacist	6421	38.36%	I
Labeling (Packaging)	5854	34.97%	II
Product display, Dummy	4462	26.66%	III
Total	16337	100%	

- The results clearly indicate that while deciding OTC herbal pain relieving products the first primary source of information consumer consider was pharmacist (38.36%) followed to labeling (34.97%) and Product display, Dummy (26.66%).
- The primary sources of information were defined as

Table No. 04: Weighted Score of secondary sources of information.

Secondary Source of information	Weighted Score	Percentage	Rank
Advertisement	6531	27.13%	I
Friends	6205	25.78%	II
Doctor	5917	24.58%	III
Family member	5413	22.49%	IV
Total	24066	100%	

- The secondary sources of information were defined as
- Weighted Score of secondary sources of information indicate that while deciding OTC herbal pain relieving products, the first source of information consumer consider was advertisement (27.13%) after that friend (25.78%), Doctor (24.58%), and Family member (22.49%). Both print as well as electronic media advertisement was the most important source of information.

5.3 The extent of impact of sources of information on purchase decision.

- The extent of impact of sources of information on purchase decision was derived through a multivariate linear regression equation:

$$\hat{Y} = 2.966 - 0.026X_1 + 0.2X_2 - 0.043X_3 - 0.077 X_4 + 0.02X_5 - 0.027X_6 - 0.065X_7$$

Where:

\hat{Y} is the dependent variable (to be predicated)

- (a) (x_1) = Pharmacists as the source of Information
- (b) (x_2) = Labeling & Packaging information as the source of Information
- (c) (x_3) = Product Display, Dummy as the source of Information
- (d) (x_4) = Doctor as the source of Information
- (e) (x_5) = Friends as the source of Information,

(f) (x₆) = Family member as the source of Information

(g) Advertisement as the source of Information (x₇) was the questions no. 17 of the questionnaire.

6 SUGGESTIONS, CONCLUSION, LIMITATIONS OF THE STUDY

Part I: Marketers

- Ayurveda as therapy is deeply embedded in Indian culture. Ayurvedic products are formulated from herbs, medicinal plants which are available in nature. This study although is restricted to OTC Herbal pain relievers the findings suggest that there is segment of consumers, 'post graduate' respondents who believed that doctors were trusted source of information. Ayurvedic medical practitioner could be trapped to give them product information. Similarly general practitioners who can be given product information even if the products are over the counter and do not mandate prescription from doctor.

It is proved beyond doubt that advertisement have been proven to be successful in creating awareness, brand recall, product demonstration. The marketers can come out with creative advertisement for each type of media that may focus on ingredients, application methods and with an appeal for selected demographic segment.

The findings also indicate that consumers who belong to higher income group, salaried and students feel that display, dummy, displayed product, as the most expertise source of information. Retail stores in the cluster of high income, students and salaried individual malls with higher foot fall can be identified by the marketers and information kiosks which have interactive content and innovative methods of information flow to the consumers can be installed at the location.

- From finding of the study it has been seen that irrespective of demographic characteristics respondents were having good knowledge/awareness about Herbal Pain Reliever Products. It is the responsibility of the marketers to convert these customers to regular users of OTC Herbal pain reliever product whenever they suffer from pain.
- Consumer acquires information through media sources, direct advertisement. It is advisable for the marketers that they should respond to this growing consumer advocacy

by publishing advertorial web pages that fulfill dual role by fusing information with advertisement.

- As seen from findings, advertisement plays important role in creating awareness, brand recall, product use and product demonstration. It can be advisable to the marketers to focus on comparative advertisement which will may prove being the most persuasive.
- It is observed in finding that consumers above age 60 prefer advertisement as most trust worthy source of information. So it can be suggested to marketers to give proper information about OTC Herbal pain relievers related to rational use, application process, and other related information in most suited way to elderly.

7.1

Part II: Consumers

- Consumers have indicated the criteria of information sources that they feel are expertise, trustworthy and easily available. In case of respondent having graduate, post-graduate and less than 10thstd. educated have indicated that family member was most easily available source of information. The findings of objective III it is indicated that it is the information which is gathered across the counter that influences more, than consumer own information. Based on above two findings it is suggested that family member, friends may act as sources of information for purchase decision to an extent they may suggest product in case of pain, but pharmacist, labeling information play more important role in decision making. Consumer should seek detailed information about the product they wish to buy across the counter. Method of application, side effects, contraindications, must be well understood to derive maximum benefit from the use of the product.

The transition in family size has been noticed. The families have become more and more nuclear. The size of reference group is likely to be lesser in number in coming years. Changing life style, work pressure are creating stressful situation for the consumer. It is also be noticed that concept of family physician is also slowly reducing the marketers are putting their efforts to give all the information through various sources to various consumer. Consumers must verify, validate the information given by marketer and when satisfied about information then take buying decision.

- It was observed from finding that most of the consumer read labeling information moreover consumers inability to interpret information/medical terminology where a plethora of brand exists. Brand with identified perceptions can be difficult to distinguish if consumers lack specialist knowledge. Consumers may fail to optimize their brand choice due to variety and ambiguity. Looking to the above scenario it is advisable to consumer to take proper information across the counter.
- It is observed that consumers acquire information through media sources, direct advertisement which impact upon symptom awareness and pertinent treatments. It is advisable to consumers that all information consumers had and information acquired through media should verify through dialogue with health professional.
- As major challenge is ensuring that OTC herbal pain relieving products are used rationally. This requires that patients receive OTC herbal pain relieving products appropriate to their clinical needs, in doses that meet their own individual requirements for an adequate period of time, and at the lowest cost to them and their community. Consumer should take pharmacist suggestion to resolve all these challenges. As from finding it has been seen that pharmacist is most creditable source of information.
- It can be suggested to elderly consumers to have dialogue with health professional while purchasing OTC herbal pain relieving products.
- The polices of the government to play important role, in marketing environment. It is confirmed that herbal pain reliever products do not require regulatory permissions to sell the products. The government policy framework can be reframed to include all such herbal pain relievers and wide publicity may be given to this policy.

7.2 Conclusion

It is concluded that India is not yet a pill-popping country, it is inching in that direction. In fact, Indian consumers today are confident about sharing healthcare responsibility through self- medication, especially when treating common ailments. Considering this changing mindset and likely changes in regulatory framework, such as OTC guidelines and open distribution, available information sources, it is reasonable to estimate that within the next 10 years India will become a major contributor to the world OTC market.

7.3 Limitations Of The Study

It is inherent property of every research, to have some limitations. This study too had certain limitations, they are presented below:

- The scope was limited to the OTC Herbal Pain Reliever Products users. This study does not include the other OTC product users.
- The scope was not extended to pharmacist, doctor, Marketers. Data from them was not collected.
- The geographical scope was limited to the OTC Herbal Pain Reliever Products users from Pune city only and the scope not extended to customers who were from rural area of Pune district.
- The tool used was questionnaire, so this study has its limitation which is inherent to the questionnaire. The researcher has taken due care in designing, administering the questionnaire but once the questionnaires were administered it is beyond the control of researcher.
- The study included total OTC Herbal Pain Reliever Products users but customers selected don't have fixed proportion of percentage of individual respondents. Graduate and post graduate students respondents seem to be more in number.
- Study did not considered factors like customer loyalty towards OTC Herbal Pain Reliever brands.

7 REFERENCES

[A] Books

Hoyer, W. D. & MacInnis, D. J., Consumer Behavior. II nd Edition, Boston, Houghton Mifflin Company, 2001.

Jobber, D., Principles and practice of marketing. McGraw-Hill Publishing Company, London, II'nd edition 1998.

Kothari C.R., 'Research Methodology Methods and Techniques', New Age International Publishers, year 2004.

Kotler, P, Armstrong, G, Wong, V & Saunders, J., Principles of marketing: 5th European edition, Pearson Education, England, 2008.

Krishnaswami O.R. & Ranganathan M., 'Methodology of Research in social science', Himalaya publishing house, year 2006.

[B] Periodicals

Bodenheimer, T, Lorig, K, Holman, H and Grumbach, K. 2002. 'Patients self-management of chronic disease in primary care', Journal of the American Medical Association 288(19): 2469-75

Cockerill, Rhonda. Williams, Paul. Report on the 1989 survey of the dispensing practices and attitudes toward prescription drugs of Ontario pharmacists. Toronto: Province of Ontario; 1990

Duncan T.R., & Everett S.E. (1993). Client perceptions of integrated marketing communications. Journal of Advertising Research, 33(3). 30-39

Eaton, Gail. Parish, Peter. General practitioners' views of information about drug. Journal of the Royal College of General Practitioners 1976; 26:64-68.

Festinger, L. (1957), A Theory of Cognitive Dissonance. Evanston, IL: Row, Peterson.

Furse David H., Girish N. Punj and David W. Stewart (1984), "A Typology of Individual Search Strategies among Purchasers of New Automobiles". Journal of Consumer Research 10, pp. 417-431

Hayes, T. M. Allery, L. A. Harding, K. G. Owen, P.A. Continuing education for general practice and the role of the pharmaceutical industry. British Journal of General Practice 1990; 40:510-512.

Prevention Magazine. International survey on wellness and consumer reaction to DTC advertising of prescription drugs. Vol.1. US report with international perspectives. Rodale Press, 2000/2001.

Petroshius, Susan M. Titus, Philip A. Hatch, Kathryn J. Physician attitudes toward pharmaceutical advertising. Journal of Advertising Research 1995; 35:41-51.

Silverman, Milton. Lee, Philip R. Lydecker, Mia. The drugging of the Third World. International Journal of Health Services 1982; 12:585-596.

Thomson, A. N. Craig, B. J. Barham, P. M. Attitudes of general practitioners New Zealand to pharmaceutical representatives. British Journal of General Practice 1994; 44: 220223.

[C] **Webliography**

- http://www.uvm.edu/~tsreets/semiotics_and_ads/terminology.html#anchor68008
- http://www.sourcewatch.org/index.php?title=Direct-to-consumer_advertising
- www.sahrc.org.za/sahrc_cms/publish/cat_index_26.shtml
- http://www.sapma.co.za/assets/attachments/0051_Annual%20Repeat%20MAY%20200200_3%20-%20APRIL2004.pdf