

**THE FACTORS INFLUENCING CONSUMER TO PURCHASE OVER THE COUNTER  
DRUGS VERSUS PRESCRIBED DRUGS: AN EXPLORATORY STUDY**

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**ABSTRACT**

Self-Medication is defined as the use of medication by a patient on his own initiative or on the advice of pharmacist instead of consulting a medical practitioner. Self-Medication is done by purchasing drugs over the counter (OTC) without a prescription from the doctor. Self-Medication is a fairly common practice that both positive and negative aspects. Major issues related to OTC drugs entails serious health hazards such as adverse reaction and prolonged sufferings. Irrational use of medicines without proper guidance may result in greater probability of inappropriate, incorrect or undue therapy, missed diagnosis, delays in appropriate treatment, pathogen resistance and increased morbidity. On the other hand, Prescription drugs are not locally available without physician's prescription. It is a licensed medicine which is obtained only by prescription. The primary purpose of this study is to create awareness about the indiscriminate purchase of OTC drugs for different ailments and also the factors that influence the purchase behavior of OTC drugs Vs Prescription drugs. This study was done during the period of March to April 2016. The sample for this study included 150 respondents in metro and urban areas including Chennai and Trichy. Percentage analysis, Chi square, Regression, Correlation co-efficient were used to analyze the data obtained. This study analyses the buying pattern of drugs by consumers for various health problems directly from the pharmacy (OTC) and compares the percentage and buying pattern of customer of OTC drugs Vs Prescription drugs. This study helps in creating awareness among consumers about the ill effects of buying medicines over the counter (OTC).

**Key words:** Self Medication, OTC drugs, Prescription drugs

**INTRODUCTION**

Everyday people throughout the world act on their own for their health; they practice self-care. In some instances, they do so through self-medication. Selfmedication is defined as the use of

medication by a Patient on his own initiative or on the advice of a Pharmacist or a lay person instead of consulting a medical practitioner (WHO guidelines, 2000). Studies done on self-medication reveal that it is fairly common practice, especially in economically developing countries. It has both positive and negative aspects. Unfortunately, especially in economically developing countries, professional health care is relatively expensive and is not readily available in certain cases thereby leading to self-medication as an obvious choice.

Major issues related to self-medication are wastage of resources and it entails serious health hazards such as adverse reaction and prolonged suffering. Irrational use of medicines without proper guidance may result in greater probability of inappropriate, incorrect, or undue therapy, missed diagnosis, delays in appropriate treatment, pathogen resistance and increased morbidity.

Prescription drug expenditures have been among the fastest growing components of the national health care expenditure. Additionally, the share of prescription drug expenditures paid by private health insurance increased substantially over past two decades, contributing to a decline in share that people pay out-of-pocket. In order to control prescription drug costs, health insurance companies have employed different new strategies to increase prescription drug cost sharing amounts for the patients. One of these strategies is a movement of prescribed (Rx) drugs into over-the-counter (OTC) status.

Historically, the petition for a prescription to OTC switch is initiated by the drug manufacturer, which follows a profit-maximizing marketing strategy for its brand name drugs after the patent expiration. Because the majority of insurance policies do not cover OTC drugs within their pharmacy benefit, insurers expect cost savings through reduced utilization and a significant price reduction. There is no doubt that the Rx-to-OTC switch affects the interests of various groups differently, which contributes to different views about the costs and benefits to the society due to Rx-to-OTC switches. Proponents of the Rx-to-OTC switch believe that the switch will lower health care costs, give greater access, and increase competition in the pharmaceutical market. On the other hand, critics despair that the switch may increase the risk of misdiagnosing and leave potentially dangerous conditions untreated.

Prescription drugs are drugs that are not locally available without a physician's prescription. It is a licensed medicine which is obtained only by prescription. These are regulated by laws and

legislation and different from over-the-counter (OTC) drugs which can be obtained without a prescription. In North America, "Rx" is often used as a short form for prescription drug. In European countries, any kind of prescription drug has a monograph or Patient Information Leaflet (PIL) that gives detailed information about the drug. Nonprescription drugs are drugs that are sold over the counter, which means they are sold without a prescription from a doctor. These drugs are sold directly to the consumers. They are also referred as the over-the-counter (OTC) drugs. In the United States, there are more than 80 therapeutic categories of non-prescription drugs, ranging from weight control drugs to anti-acne to analgesics drugs and many more. These drugs are easily available in local chemists as well as in general stores, supermarkets, gas stations, etc.

## **2. REVIEW OF LITERATURE**

**Ford, C., & Good, B. (2007)** The development of dependency on over the counter (OTC) drugs is often forgotten.<sup>1</sup> In the past three months we have seen three patients with addictions to Nurofen plus (ibuprofen and codeine phosphate). All three had started using the product for its approved indications, but their use had escalated as they became tolerant to the codeine element. Each patient presented with side effects related to ibuprofen. **Yood, M. U., Campbell, U. B., Rothman, K. J., Jick, S. S., Lang, J., Wells, K. E., Johnson, C. C. (2007)**. Many pharmacoepidemiologic studies use automated prescription claims data to estimate the association between exposure and disease. One limitation of automated data, when studying drugs that are also available via retail, is that over-the-counter (OTC) exposure is missed. **Sunagane, N., Aikawa, M., Ohta, T., & Uruno, T. (2006)** Our series of studies aimed to examine the possibility of interactions between prescription drugs and over-the-counter (OTC) drugs by monitoring plasma drug concentrations in rats. **Wazaify, M. (2005)** Over-the-counter (OTC) medicines are increasingly used for self-medication, but such products can be misused/abused. **Sharma, R., Verma, U., Sharma, C., & Kapoor, B. (2005)** Self-medication can be defined as obtaining and consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment. There is a lot of public and professional concern about the irrational use of drugs. **Osborne, C. A. (2005)** In the UK, medicines are being reclassified from prescription-only drugs to allow supply without prescription. This allows faster and easier access to medicines to treat minor ailments and allows patients to take greater responsibility for their health. However, over-the-counter (OTC) drugs may pose risks to patients; thus, it is important to understand patients' OTC medicine use. **Mcbride, A. J., Pates,**

**R., Ramadan, R., & McGowan, C. (2003)** To explore the views of experts within the fields of pharmacy and addiction on the value of current strategies and possible alternatives and to reach an agreement on best practice in the sale of over-the-counter (OTC) medicines which are liable to misuse. **Cham, E., Hall, L., Ernst, A. A., & Weiss, S. J. (2002)** A survey study was done to determine basic knowledge about and use of over-the-counter (OTC) pain medications among patients seen in our emergency department (ED). **Minghetti, P., Casiraghi, A., Cilurzo, F., & Montanari, L. (2000)** Even if a specific directive has been approved many years ago, the situation of self-medication products (OTC) in EU countries is still far from being harmonized.

### **3. OBJECTIVE OF THE STUDY**

- The aim of this study was to ascertain the attitudes of patients to Over-The Counter Drugs versus Prescription Drugs.
- To rank the misuse level of Over-The-Counter Drugs.

### **4. NEED FOR THE STUDY**

The study is an attempt to create awareness about the indiscriminate purchase of OTC Drugs for different ailments and also the factors that influence the purchase behavior of over-the-counter drugs versus prescription drugs

### **5. ANALYSIS AND DISCUSSIONS:**

Primary data were collected through questionnaire and the same were analysed using the Statistical tools like Chi-square, Correlation, which were interpreted in the following tables.

**Table 1**

#### **Percentage analysis**

<b>Age ( in years)</b>	<b>Number of respondents</b>	<b>Percentage to total</b>	<b>Gender</b>	<b>Number of respondents</b>	<b>Percentage to total</b>
16-24	37	24.7	Male	84	56.0
25-44	82	54.7	Female	66	44.0
45-64	18	12.0	Total	150	100.0
ABOVE 65	13	8.7	<b>Eduactional qualification</b>	<b>Number of respondents</b>	<b>Percentage to total</b>
TOTAL	150	100.0	Illiterate	5	3.3

Occupation	Number of respondents	Percentage to total	Up to secondary	11	7.3
Unemployed	23	15.3	Higher secondary	20	13.3
Self employed	25	16.7	U.G	65	43.3
Salaried – private	65	43.3	P.G	38	25.3
Salaried – public	12	8.0	Professional	11	7.3
Business	16	10.1	Total	150	100.0
Others	9	6.0	<b>Montly income</b>	<b>Number of respondents</b>	<b>Percentage to total</b>
Total	150	100.0	Less than 10000	50	20.0
			10000-20000	57	38.0
			20000-30000	38	25.3
			30000-40000	18	12.0
			Above 40000	7	4.7
			total	150	100.0

Majority of respondents 54.7% respondents were in the age group between 25-44 years, 56% of respondents were male. 43.3% of the respondents were holding under graduation, 43.3% of respondents were private-salaried, 38.0% of respondents are earning between Rs.10000-Rs20000.

**Table 2**

**Correlation of Educational Qualification and Overall Satisfaction with prescription drugs**

Educational Qualification and Overall Satisfaction with Prescription drugs	R	Significance	Relationship
Educational Qualification and Overall Satisfaction with OTC	.135**	0.105	Positive

\*\* . Correlation is significant at the 0.01 level (2-tailed).

- There is a statistically significant Positive correlation between Educational Qualification and Overall Satisfaction with Prescription drugs, since  $r = .135^{**}$  and  $P = 0.105$  which means Educational Qualification influences Overall Satisfaction with Prescription drugs

**Table 3**

**Correlation of Age and overall Satisfaction of OTC drugs**

Age and Overall Satisfaction with OTC	R	Significance	Relationship
Age and Overall Satisfaction with OTC	.051 **	0.557	Positive

\*\* . Correlation is significant at the 0.01 level (2-tailed).

- There is a statistically significant Positive correlation between Age and overall Satisfaction of OTC drugs since  $r = .051^{**}$  and  $P = 0.557$  which means Age and overall Satisfaction of OTC drugs.

**Table 4**

**Correlation of age and overall satisfaction of Prescription drugs**

Age and Overall satisfied with Prescription drugs	R	Significance	Relationship
Age and Overall satisfied with Prescription drugs	.051 **	0.540	Positive

\*\* . Correlation is significant at the 0.01 level (2-tailed).

- There is a statistically significant Positive correlation between Age and overall Satisfaction of prescription drugs since  $r = .051^{**}$  and  $P = 0.557$  which means Age and overall Satisfaction of prescription drugs.

**Table 5**

**Correlation of Educational Qualification and Overall Satisfaction with OTC**

Educational Qualification and Overall Satisfaction with OTC	R	Significance	Relationship
Educational Qualification and Overall Satisfaction with OTC	-.152 **	0.077	Positive

\*\* . Correlation is significant at the 0.01 level (2-tailed).

There is a statistically significant Positive correlation between Educational Qualification and Overall Satisfaction with OTC since  $r = -.152^{**}$  and  $P = 0.077$  which means Educational Qualification influences Overall Satisfaction with OTC

**Table 6**

**Regression of Educational qualification and overall satisfaction of Prescription drugs**

**Model Summary**

S.no	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.135 <sup>a</sup>	.018	.011	.68208

1.8% of variances in the overall satisfaction of Prescription drugs can be explained by the educational qualification of the respondents.

**Table 7**

**Regression of Educational qualification and overall satisfaction of OTC drugs**

**Model Summary**

S.no	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.152 <sup>a</sup>	.023	.016	1.16866

2.3% of variances in the overall satisfaction of OTC drugs can be explained by the educational qualification of the respondents.

**Table 8**

**Regression of Age and overall satisfaction of OTC drugs**

**Model Summary**

S.no	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.051 <sup>a</sup>	.003	-.005	1.18081

0.33% of variances in the overall satisfaction of OTC drugs can be influenced by the Age of the respondents

**Table 9**

**Regression of Age and overall satisfaction of Prescription drugs**

**Model Summary**

S.no	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.051 <sup>a</sup>	.003	-.004	.68749

0.33% of variances in the overall satisfaction of Prescription drugs can be influenced by the Age of the respondents.

**6. RECOMMENDATIONS**

- Buying behavior of drugs for various diseases over the counter has been well demonstrated in the study the risk of buying of OTC or wrong usage of drugs wrong suggestions of drugs by pharmacist in drug stores with wrong dosage will result in severe health hazards for users, buying behavior also reflected uniform buying of medicines over the counter in material of demographic profile namely education, income, profession etc,
- Immediate initiatives have to be taken against purchase behavior of people for buying medicines of OTC for the ailments in material of nature of ailments.
- Even buying behavior of drugs in prescription has to be limited to a shorter period as there is a risk of decrease in the efficacy of drugs over the period. Hence latest prescription should be indicated for buying of medicines for various ailments.
- Wrong recommendation from others for purchase of drugs OTC for different ailments will affect the health and also lead to other complications.
- There is a chance of misselling drugs OTC.

**7. CONCLUSION**

A massive and intensive education incentive has to be started for bringing awareness of the hazards of buying medicines over the counter for ailments and need for going to a doctor for correct



diagnosis of ailments and proper prescription. This will reduce to a great extent the hazardous of drugs over the counter.

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