

Prevalence and Pattern of Over-The-Counter Drug Use Among Adults in Selected Areas of Virudhunagar, Tamil Nadu: A Cross-Sectional Study

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ABSTRACT

Background: Over-the-counter (OTC) medicines are widely used for the self-management of minor ailments because of their accessibility and convenience. However, inappropriate use may result in incorrect dosing, drug interactions, adverse effects and delays in seeking professional healthcare. The present study assessed the prevalence and pattern of OTC drug use among adults in selected areas of Virudhunagar, Tamil Nadu.

Methods: A quantitative, non-experimental descriptive cross-sectional study was conducted among 100 adults residing in Kumaralingapuram and Indiranagar, Virudhunagar. Participants were selected using non-purposive convenience sampling. Data were collected through an interview using a semi-structured questionnaire consisting of demographic variables, a dichotomous question assessing prevalence of OTC drug use, and questions assessing the pattern of use. Descriptive statistics were used to summarize the findings, and the chi-square test was used to examine associations between selected demographic variables and OTC drug-use patterns.

Results: All participants (100%) reported using OTC medicines without a doctor's prescription. All participants reported using OTC medicines for minor ailments. Headache was the most commonly reported reason for use (81%). Most participants (84%) reported using OTC medicines sometimes. Although 60% checked the expiry date and 69% followed dosage instructions, 51% did not read the drug label before use. Most participants did not exceed the recommended dose (85%), use more than one OTC medicine simultaneously (84%), or combine OTC medicines with prescribed medicines (80%). Pharmacists were the most common source of medication information (51%), and all participants reported purchasing OTC medicines from a medical shop near their home.

Conclusion: OTC drug use was highly prevalent among the adults studied. Although several safe medication practices were reported, gaps such as failure to read drug labels remain. Community-based medication-safety education and appropriate counselling by nurses and other healthcare professionals are needed to promote rational OTC drug use.

Keywords: Over-the-counter drugs; self-medication; medication safety; adults; community health nursing; Virudhunagar.

1. INTRODUCTION

Over-the-counter medicines are commonly used for the management of minor ailments such as headache, fever, cough, cold and gastrointestinal symptoms. Their easy availability and convenience support self-care; however, inappropriate use can result in incorrect dosage, drug interactions, adverse drug reactions and delayed diagnosis of underlying illness. The original study highlights the increasing concern regarding self-medication and the need to promote rational use of OTC medicines.

In the present study setting, there was a perceived need to generate community-level information regarding OTC drug use among adults. The study therefore focused on the prevalence and pattern of OTC drug use and examined whether the pattern was associated with selected demographic characteristics.

Aim

To assess the prevalence and pattern of OTC drug use among adults in selected areas of Virudhunagar.

Objectives

1. To assess the prevalence of OTC drug use among adults.
2. To assess the pattern of OTC drug use among adults.
3. To determine the association between the pattern of OTC drug use and selected demographic variables.

2. METHODS

Study design and setting

A quantitative, non-experimental descriptive cross-sectional design was adopted. The study was conducted in Kumaralingapuram (rural) and Indiranagar (urban), Virudhunagar District, Tamil Nadu.

Participants and sample size

The study included 100 adults aged 18 years and above residing in the selected study areas. Both males and females who were willing to participate and available during data collection were eligible. Health professionals and seriously ill individuals were excluded.

Sampling

A non-purposive convenience sampling technique was used to recruit 100 participants.

Data collection instrument

Data were collected using a semi-structured questionnaire comprising:

- **Section A:** Sociodemographic variables
- **Section B:** One dichotomous item assessing OTC drug-use prevalence
- **Section C:** 15 yes/no items and 3 multiple-choice items assessing the pattern of OTC drug use.

The tool was reviewed by experts for appropriateness, adequacy, relevance, completeness and comprehensiveness, and modifications were made according to their suggestions.

Data collection procedure

Institutional ethical approval was obtained, and formal permission was obtained from the respective local authorities. Participants were approached in their homes or other convenient community locations. The purpose and procedures of the study were explained, and verbal informed consent was obtained. Data were collected through structured interviews.

Statistical analysis

Frequency and percentage were used for descriptive analysis. The chi-square test was used to examine associations between selected demographic variables and OTC drug-use patterns.

3. RESULTS

Sociodemographic characteristics

Among the 100 participants, the largest age group was 26–35 years (29%). Females

constituted 80% of the sample. Homemakers represented the largest occupational group (44%), and 60% reported a monthly income below ₹10,000. Half of the participants lived in rural areas and half in urban areas. Most participants were married (90%) and belonged to nuclear families (95%). Sixty-two percent had health insurance, while 72% reported no chronic illness. Pharmacists were the main source of medication information for 51% of participants.

Prevalence of OTC drug use

All 100 participants (100%) reported using OTC medicines without a doctor's

prescription. All participants also reported using OTC medicines for managing minor ailments.

Pattern of OTC drug use

Important findings included:

These findings are reported directly from the study's pattern-of-use results.

Headache was the most frequently reported reason for OTC drug use (81%). Regarding frequency, 84% reported using OTC medicines sometimes, 8% rarely, 7% often and 1% very frequently. All participants reported purchasing OTC medicines from a medical shop near their homes.

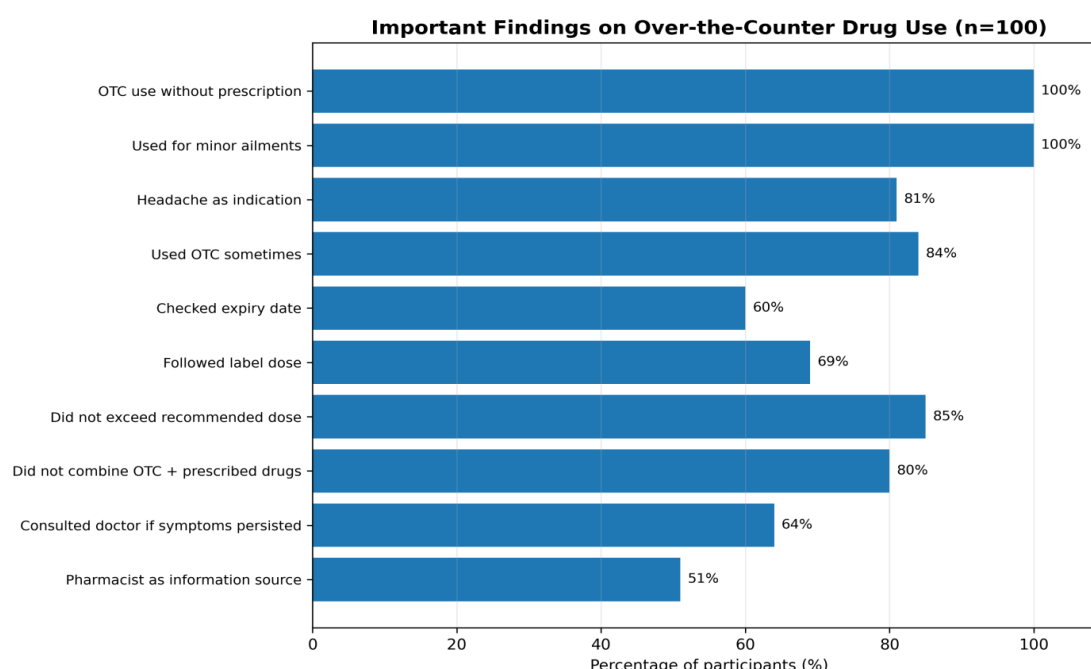


Figure 1. Important Findings on Over-the-Counter Drug Use Among Adults (n=100)

Source: Present study, Virudhunagar, Tamil Nadu

Association with demographic variables

There was a statistically significant association between the pattern of OTC drug use and selected demographic variables, namely gender, monthly family income, and source of information about medicines ($p < 0.05$). No statistically significant association was found between the pattern of OTC drug use and age, education, occupation, place of residence, type of family, marital status, health insurance, presence of chronic illness,

distance to the nearest health facility, or frequency of hospital visits ($p > 0.05$).

4. DISCUSSION

The present study found a 100% prevalence of OTC drug use without a doctor's prescription among the 100 adults studied. The very high prevalence indicates that self-medication was common in this selected community sample.

The pattern of use showed both appropriate and potentially unsafe practices. A

considerable proportion checked expiry dates and followed dosage instructions, and most participants reported not exceeding recommended doses or combining multiple OTC medicines. However, 51% did not read drug labels, indicating an important medication-safety gap.

Headache was the predominant reason for OTC drug use, reported by 81% of participants. Most participants used OTC medicines sometimes rather than frequently. Pharmacists were the most commonly reported source of medication information, highlighting the important role of pharmacists and other healthcare professionals in community medication counselling.

The findings are consistent with the broader literature summarized in the research project, which describes OTC and self-medication practices as common in community populations and identifies accessibility, convenience, previous experience and inadequate awareness as important contributors.

From a nursing perspective, the findings emphasize the importance of community-based medication education, particularly regarding reading labels, dosage, drug interactions, appropriate duration of use, adverse effects and indications for seeking professional care.

5. CONCLUSION

OTC drug use was widespread among adults in the selected areas of Virudhunagar, with all study participants reporting use without a doctor's prescription. Although several safe practices were observed, important gaps remained, particularly in reading medication labels. The findings support the need for structured community health education and medication-safety counselling. Nurses can play an important role in identifying unsafe self-medication practices, providing health

education and promoting appropriate healthcare-seeking behaviour.

6. NURSING IMPLICATIONS

The findings have implications for community health nursing practice, particularly in medication-safety education and counselling. Nurses can identify adults who frequently self-medicate, provide education regarding appropriate OTC drug selection and dosage, emphasize label reading and potential drug interactions, and encourage consultation with healthcare professionals when symptoms persist. Community-based nursing interventions may help promote rational medication use and prevent avoidable medication-related harm.

7. REFERENCE

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