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Assessment of Prevalence, Knowledge and Practice of Over-the-Counter Medications Use among General Population

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ABSTRACT

The rate of use of over the counter (OTC) drugs is radically expanding step by step. Over the counter medications are drugs sold easily to consumer without a physician's instruction. A cross sectional descriptive design was adopted for this study to assess the prevalence, knowledge and practice of over-the-counter medications use among general population. A sum of 440 people was selected utilizing probability cluster sampling by evaluating individuals who met the inclusion criteria. The participants were collected data on knowledge and practice of over-the-counter medications use with a self-structured questionnaire through structured interview method. An aggregate of 500 people were met with respect to their utilization of OTC medications, among which 440 were selected. The commonness of self-medicine with OTC medications in our examination was seen as 88%. Among which 97% of them had adequate knowledge on OTC meds and just 3% had inadequate knowledge. With respect to level of Practice, it was discovered that 67.7% of them had low practice, 31.1% had moderate practice and 1.13% had high practice. There was a feeble negative connection existed among knowledge and practice ($r=-0.244$) which was significant at $p<.001$. There was likewise a measurably statistically significant affiliation noted between the degree of knowledge with medicinal professionals in their family at $p<0.01$ and source of awareness at $p<0.001$. Correspondingly, an affiliation was found between the degree of practice with educational qualification at $p < 0.01$, OTC medicine utilization in years at $p < 0.01$ and source of awareness at $p < 0.05$.

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INTRODUCTION

The International Pharmaceutical Federation characterizes self-medication as the utilization of non-doctor prescribed meds by individuals own plan. (International Pharmaceutical Federation, 2018) These medications are frequently situated on racks in drug stores with simple access by patients, yet may likewise be situated in non-drug store outlets, for example, markets, accommodation shops. OTC drugs are viable in treating normal diseases, and it encourages the patients to choose sheltered, viable item. (Patel *et al.*, 2017) All around, self-

medicine has been accounted for as being on the ascent. Individuals around the globe will in general treat the malady, practically half either trust that the issue will run its course or utilize a home cure. About 25% visit a specialist or utilize physician recommended prescription recently acquired for a similar condition. The staying 25% go to the OTC drugs. (Sandeep *et al.*, 2013)

India right now positions eleventh as far as the market of over the counter (OTC) medications and it is additionally expected to reach to ninth situation in next five years (Nagaraj *et al.*, 2015). Central Drugs Standard Control Organization (CDSCO) is the over-seeing body that directs import, production, distribution, and offer of medications and beauty care products by Drugs and Cosmetics Act (DCA) and its subordinate enactment, Drugs and Cosmetics Rules (DCR), 1940. OTC medications which are sold by drug stores without a prescription of therapeutic specialist additionally falls under this act (Drugs and Cosmetics Rules, 1945).

On average, U.S., family units spend about \$338 every year on OTC items (Pharma News HQ, 2018). India's present OTC medication showcase is pegged at around \$4 billion which is developing quickly with numerous pharmaceutical organizations (Dey, 2017). In 2016, India's over the counter (OTC) advertise grew 8 percent to \$2.7 billion, with a five-year compounded annual growth rate (CAGR) of 9 percent (DB6 Global OTC database, 2018). Today three out of each five individuals report having taken in any event one OTC medication in the past 6months (Revathi, 2012). According to the Consumer Healthcare Products Association (CHPA), 81% of US adults use OTC medicines as a first line treatment for minor illnesses (Certified Healthcare Protection Administrator, 2020).

In numerous nations, OTC medications are chosen by an administrative office to guarantee that they are protected and viable when utilized without doctor's consideration. Assuming control over-the-counter medications despite everything has hazard. Some communicate with different drugs, enhancements, nourishment and beverages and a few causes issue for individuals with certain therapeutic conditions. (Medline Plus, 2016)

The combination with poor community proficiency about medication well being and utilization, potentiates misuse and abuse of drugs in India. This, in turn, can add to sick well being, general well being dilemmas, for example, antibiotic resistance and further impoverishment of the community. (Porter and Grills, 2016) Different examinations have demonstrated that the utilization of OTC is twice as regular

as that of recommended prescription. (Jensen *et al.*, 2014)

There is no guideline for the utilization of OTC medications in India. Albeit OTC medications are accepted to be sheltered and compelling, undoubtedly they are most certainly not. They cover the underlying disease and may cause a few unfavourable impacts. Very few studies were conducted with usage of OTC drugs in our state. Hence, we conduct the study to evaluate the prevalence and assess the knowledge and practice of OTC medications use among general population.

MATERIALS AND METHODS

For the present study, a quantitative approach with descriptive research design was used. The study was conducted in 10 selected villages attached to Rural Health Training Centre (RHTC) of Sri Ramachandra Institute of Higher Education and Research (DU) at Vayalanallur of Thiruvallur District. The number of outpatients attending RHTC per day was around 50-200 patient. The selected villages of RHTC of SRIHER consists of 9 panchayats and 39 villages. A study was conducted after obtaining ethical clearance from the Institutional Ethical Committee of Sri Ramachandra Institute of Higher Education and Research (DU). A formal permission was obtained from the Head of the Department, Community Medicine. The data were collected from 440 individuals consuming over the counter medications who met the inclusion criteria by using a Probability cluster sampling technique. Self-structured questionnaire was developed by the investigator consisting of 3 sections, Background variables and structured questionnaire on prevalence, knowledge and practice of OTC medication. The written consent was obtained from each participant after explaining the study in detail and the background data was collected. The data were collected through structured interview method and data was analyzed with descriptive and inferential statistics.

RESULTS AND DISCUSSION

The results of the present examination uncovered that the mean age of the participants was 45.3 with the base and greatest age of 18 and 86 individually. 36.1% had a place with the age gathering of 31-45 years. As for gender, 74.8% of the participants were females. Concerning educational qualification, 27.6% of the participants have secondary school level of instruction. According to conjugal status 80.5% were hitched. As for sort of family 40.5% had a place with joint family and 59.5% had

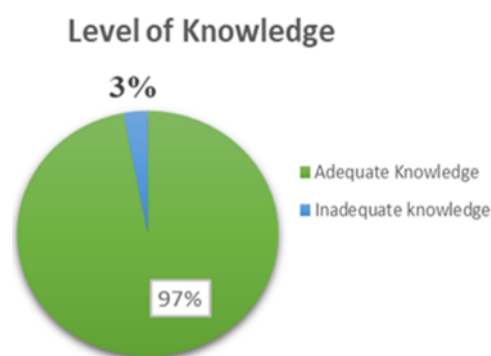
Table 1: Distribution on Prevalence of over-the-counter medications use among the general population (N=440)

Over-the-counter medication use	n	%
General population with Over-the-counter medication use	440	88
General population without Over-the-counter medication use	60	12
Reason for taking OTC Drugs		
Cheaper and convenient	53	12.04
Lack of time to meet doctor	106	24.09
Going to hospital is difficult	83	18.8
Mild illness	265	60.2
Prior knowledge about medicines	10	2.27
Others	45	10.2
OTC use for Common minor ailments		
Fever	286	65
Diarrhea	82	18.6
Cold/cough	189	50
Acidity	37	8.4
Muscle, joint pain	15	3.4
Constipation	40	9.0
Painful/heavy menstruation	22	5
Headache	270	61.3
Toothache	152	34.5

a place with the family unit. According to the family pay, 42.2% of them had a salary of \leq Rs.5000 every month and 5.2% had Rs.>20,000. As to OTC drug use, 35.9% have been utilizing OTC medicines for >10years and 8.6% couldn't give insights regarding the quantity of long stretches of OTC use. With connection to medical professionals in their family shows 92.0% were none and 0.5% was doctors. As to source of awareness, 47.9% of the participants have taken OTC medicine without anyone else's involvement and 46.1% were impacted by friends/relatives.

The pervasiveness of over the counter drugs use among general population was 88% with the study done out of 500 examples, 440 (88%) participants announced in regards to the utilization of OTC medications. (Table 1) These outcomes were supported with a cross-sectional examination directed among 400 grown-up patients going to PHC. The investigation discoveries indicated that the pervasiveness of OTC analgesics utilizes 84.8%. (Babakor and Ghamdi, 2018) Similarly the study results supports the cross-sectional investigation at Mansoura University, Egypt among first and last year students of both medical and nonmedical colleges to investigate the predominance of self-medication practice, likely reasons, manifestations looking for self-medicine, and wellsprings of advice. The expert infers that

the commonness of self-medication was 62.9% and commonest reason of self-medicine was "no need to visit the specialist for a minor sickness" and "information from past experience". Drug store representative, neighbours and family were the most regular wellsprings of exhortation. (Cecyli and Pragathi, 2020)

**Figure 1: Distribution of Level of Knowledge on Over-the-Counter medications use among General Population (N=440)**

(Helal and Abou-ElWafa, 2017) additionally reported with consistent discoveries that about 80% of participants in provincial and 90% of participants in urban areas detailed that headache was the most well-known signs for which OTC drug is started. Whereas, the other indications/symptoms are fever (80%) in the rustic territory and cold

and cough (74%) in the urban area was the most generally recognized symptom for taking OTC medication.

The present investigation results depict that, 97% of them had adequate knowledge on OTC medications and 3% had inadequate knowledge (Figure 1).

Table 2: Distribution of Level of Practice on Over-the-Counter Medications use among General Population (N-440)

Level of Practice	N	%
Low Practice	298	67.7
Poor Practice	137	31.1
High Practice	5	1.13

The present investigation reveals that 67.7% had low practice, 31.1% had moderate practice and 1.13% had high practice (Table 2). The mean knowledge & practice score were 12.5 with a standard deviation of 2.02 and 40.7 with a standard deviation of 5.12 respectively.

The present examination supports the examination led to survey the knowledge, attitude and practice of self-medicine among 276 health science students at Debre Markos University. The expert concluded that 64.6% of the respondents had great degree of knowledge with respect to self-medicine and 58.4% rehearsed self-medication (Abebe et al., 2017).

So also, results were stable with an examination led among 103 pregnant ladies in Okwe General Hospital Asaba in Delta State. The outcomes of the investigation portrayed that 80.6% of the respondents had good knowledge on the utilization of non-prescription medications during pregnancy with a mean knowledge score of 8.7 ± 3.0 , 64(62.1%) of respondents practiced drugs without consultant's prescription. (Okandeji-Barry et al., 2016)

The present examination exhibits that there is a weak negative connection was noted among knowledge and practice ($r = -0.244$) which was significant at $p < .001$. The present examination results show that association of demographic variables with knowledge was medical professionals in their family and source of awareness was seen as factually huge with knowledge ($p < 0.01$ and $p < 0.001$).

Additionally, a factually critical affiliation found between the degree of practice with educational qualification at $p < .01$, OTC medicine utilization in years at $p < .01$ and source of awareness at $p < .05$. The outcomes were likely with study directed among 110 grown-ups in the age gathering of 20 or more living in Chapapani-12, Pokhara. The outcomes demonstrated that there is critical relation-

ship of practice with education status of respondents. (Sharma et al., 2017)

CONCLUSIONS

The Present investigation surmises, that the utilization of OTC medications is generally being practiced among majority of participants with pervasiveness pace of about 88%. Larger part of the participants had satisfactory information on OTC medications and as yet being practiced among them supported by simple openness of medications. It is imperative to assemble mindfulness about risky utilization of OTC medications among all inclusive community to forestall wrecking complexities.

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Conflict of Interest

The authors declare that they have no conflict of interest for this study.

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