

The Use and Understanding of Over-the-Counter medications among University of Santo Tomas College Undergraduate Students

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Abstract—Self-medication is widely practiced worldwide and often considered as a component of self-care. Due to the poor economic status and busy lifestyle, most people particularly students self-medicate and rely on the over-the-counter (OTC) drugs. Nowadays, students usually consume these drugs as a “quick fix” to relieve their uncomfortable feeling. This study aimed to determine the common practice of University of Santo Tomas undergraduate students in consuming OTC medications. A cross sectional descriptive research was employed in this study. The survey questionnaires were distributed to 300 undergraduate UST students. The respondents of the survey were selected by random sampling. The gathered data were measured by computing for the percentage of the frequency of each choice per question. Two hundred fifty-three (253) out of three hundred (300) surveys were qualified in this study. Out of these, 83.40% had taken an Over-The-Counter (OTC) medication. Cough, cold, flu or sore throat (63.24%) and pain (54.94%) were the reasons OTC medications were most likely used. Directions for usage (38.74%) and indication are what students read first about the medication. Over fifty percent (50.21%) of the respondents were not aware of the side effects. Moreover, those who were aware still take their medication (90.16%). Based from the results, Paracetamol, followed by Vitamins, were the most common OTC drugs and; these OTC Medications are taken only when needed. Furthermore, the students still lack full understanding on the coverage of self-medication using OTC medicines as evidenced by the possibility of improper drug selection. Finally, awareness on the proper usage of OTC medications by the students is still lacking as indicated by overdosing. Associating all these factors towards OTC medication use, drug misuse, improper drug selection, less or no drug dependence, and ignorance of side effects is present among UST Students.

Index Terms—Self-medication, over-the-counter drugs, college undergraduate, medication use, University of Santo Tomas, medication problems, drug use.

1 INTRODUCTION

OVER-the-counter drugs (OTCs) are the drugs that are purchased without prescription. There are currently more than 300,000 different OTC drugs available only in US. There is no regulation for the use of OTC drugs in the Philippines.

Self-medication is the use of drugs with therapeutic intent but without professional advice or prescription [1]. It is one of the major causes which eventually become the major factor of the irrational use of medicines [2]. It is not an authorized action but a human behavior in which an individual uses a substance for self-administration. In addition, it addresses medical problems that may not require medical consultation, thus allowing the provision of a cheaper alternative to alleviate public's sufferings from common illness. In the Philippines, majority self-medicate and use Over-the counter drugs to relieve the symptoms they are experiencing.

Self-medication is widely practiced worldwide and often considered as a component of self-care. The World Health Organization (WHO) has appropriately pointed out that responsible self-medication can help prevent and treat diseases that do not require medical consultation. The practice of self-medication must be based on authentic medical information otherwise irrational use of drugs can cause wastage of resources, increased resistance of pathogens, and can lead to

serious health hazards such as adverse drug reaction and prolonged morbidity.

Due to the poor economic status and busy lifestyle of an individual, most people particularly students self-medicate and rely on the OTC drugs. A study of Burak and Damico states that a record in self-medication in students has been increased worldwide. Nowadays, students, under stress due to their work pressure, have a little room for minor illness and usually lead to consumption of these drugs as a “quick fix” to relieve their uncomfortable feeling [3]. The students' improper use caused by their lack of knowledge regarding drug information can lead to serious implications in their health. Increasing the awareness on drug information among students, therefore, may reduce the undesirable effects that they may experience.

General Objective: To determine the common practice of University of Santo Tomas undergraduate students in consuming over-the-counter (OTC) medications

Specific Objectives:

1. To determine the most common OTC medications that the UST undergraduate students use.
2. To determine how often do UST undergraduate students take OTC medications
3. To assess the level of understanding of UST undergraduate

students regarding their OTC medications.

4. To determine the awareness of the students in proper usage of their OTC medications and the factors affecting their usage.

2 MATERIALS AND METHODS

2.1 Research Design and Selection of Subjects and Study Site

A cross sectional descriptive research was employed in this study. The University of Santo Tomas (UST) was chosen to be the study site based on convenience sampling. The survey questionnaires were distributed to 300 undergraduate students of UST within the 17 colleges of the university which includes Architecture, Commerce, Education, Fine Arts and Design, Nursing, Rehabilitation Sciences, Science, Tourism and Hospital Management, Music, Arts and Letters, Engineering, Pharmacy, Philosophy, Theology, Information and Computing Sciences, Physical Education and Athletics, and Accountancy. The respondents of the survey were selected by random sampling. Ratio and proportion was used to determine the number of students in each course that served as the respondents.

2.2 Formulation of Survey Tool

The survey tool was divided into four parts: Part 1 contains the demographics of the respondents which include the name (optional), gender, age, and faculty or college. Part 2, Over-The-Counter (OTC) Medication Use Identification, accounts whether the respondent is currently taking or have taken OTC medication over the past three (3) months; and the generic name, frequency of use, and indication of the OTC medications taken. Part 3, Use of OTC Medication (Habit and Factors in Using OTC Medications), delineates the frequency of the use of OTC medications as compared to the previous years, how the medications were taken, and the factors considered when buying OTC medications. Part 4, Understanding of OTC Medication, specifies the information the respondents look for in the package, their awareness on the side effects, and their source of information about taking OTC medications.

2.3 Distribution of Survey Tool / Data Gathering Procedure

The researchers distributed the questionnaires to the study site and were collected upon completion. The data collection was on the 2nd week of April 2016.

2.4 Data Measure / Mode of Analysis

The gathered data were measured by computing for the percentage of the frequency of each choice per question.

3 RESULTS AND DISCUSSION

In the survey taken from the different colleges in the University of Santo Tomas (UST), two hundred fifty-three (253) out of 300 surveys were qualified in this study. Out of these, 83.40% had taken an Over-The-Counter (OTC) medication (Fig. 1). The students were able to answer properly, though factors such as no knowledge of the generic name may have left out some medications that they may have taken. Nevertheless, Paracetamol, an analgesic, was found to be the most used drug with 67.98% response (Table 1). This may be because one of the highest rated symptoms that make the students use OTC medication is pain (Figure 2). Though, cough, cold, flu or sore throat (63.24%) and pain (54.94%) were the reasons OTC medications were most likely used, but the medication with its indication is hardly used which may infer an improper selection of medication for the illness. This shows a need for basic education on the use of medication among the students.

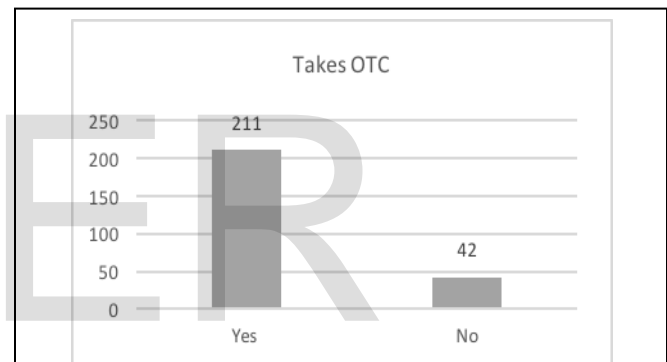


Fig. 1. The number of UST students who have taken Over-the-Counter (OTC) medications in the past 3 months.

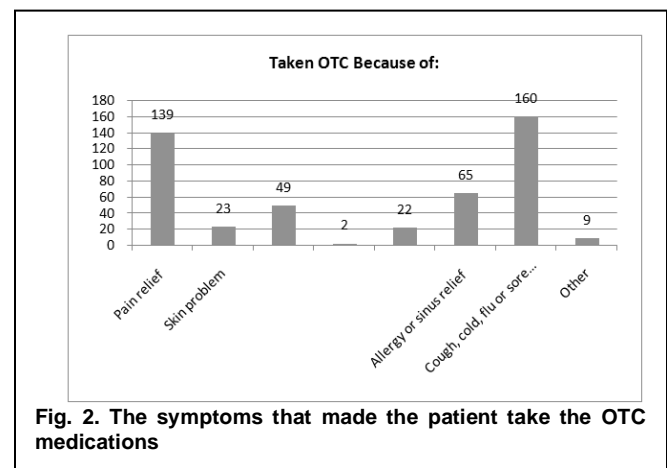
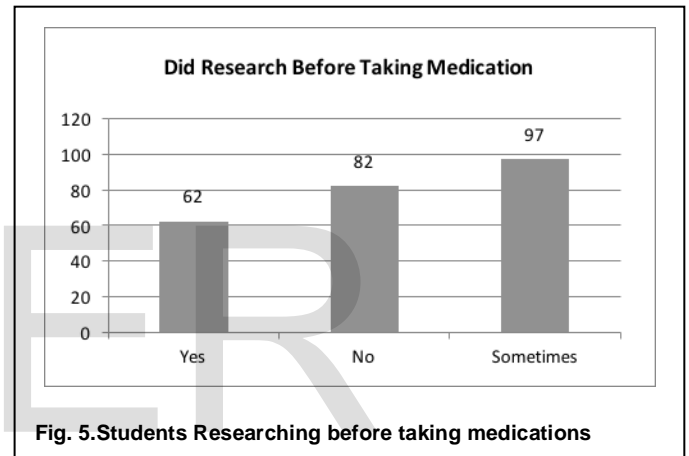
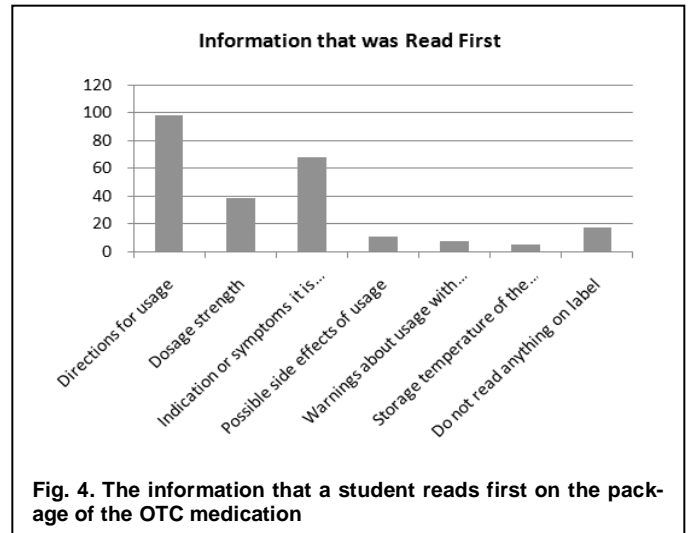
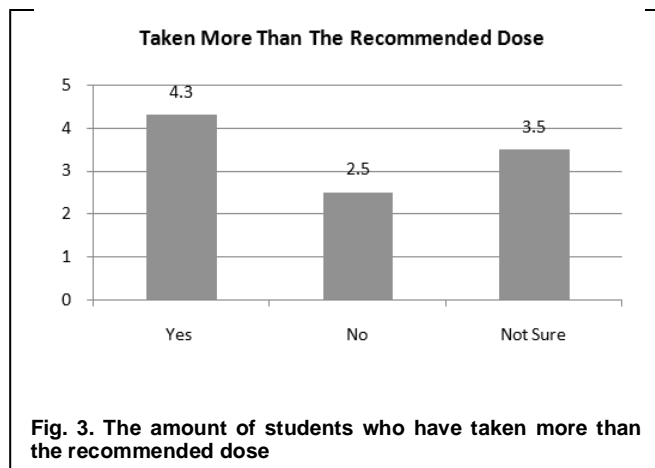


Fig. 2. The symptoms that made the patient take the OTC medications

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TABLE 1
THE SPECIFIC OTC MEDICATIONS THAT THE STUDENTS HAVE TAKEN IN THE PAST 3 MONTHS

	Does Not Take	Once a Day	Twice a Day	When Needed
Paracetamol	81	13	13	146
Al(OH) ₃ +Mg(OH) ₂	241	2	0	10
Albendazole	253	0	0	0
Mebendazole	253	0	0	0
Diphenhydramine	245	0	0	8
Chlorphenamine	246	0	0	7
Mefenamic Acid	189	9	1	54
Ibuprofen	198	5	2	48
Aspirin	238	2	0	13
Meclizine	252	1	0	0
Lagundi	217	2	2	32
Sambong	250	1	0	2
Dextrometorphan	252	0	1	0
Loperamide	221	2	0	30
Calcium	231	15	1	5
ORS	243	0	0	10
Bisacodyl	253	0	0	0
Senna	253	0	0	0
Castor Oil	251	2	0	0
Benzyl Benzoate	253	0	0	0
Crotamiton	253	0	0	0
Sulfur	252	0	0	1
Ferrous Sulfate	244	5	0	4
Benzoic Acid	249	1	0	3
+Salicylic Acid				
Clotrimoxazole	252	0	1	0
Miconazole	253	0	0	0
Vitamins	149	88	5	11
Folic acid + Ferrous sulfate	249	1	0	3
Zinc sulfate	247	1	1	2
Others	233	8	3	9



Majority of the respondents had taken 2 types of OTC medications for the past 3 months (30.04%). The frequency of OTC use is about the same (36.76%) or less frequent (30.04%) as compared to last year or few years ago. Those who have taken more than the recommended dose of OTC medicines (Figure 3) are less (11.46%) and tend to not know how they took the medication, although conversely those who do take more than the recommended dose usually take the next dose sooner or unsure but in this regard it is for the belief that it would bring relief more quickly (41.46%), which is the most usual reason for overdosing. Also, respondents who experience more than one symptom took combinations of medicine (41.90%). Directions for usage (38.74%) and indication are what students read first when receiving the package for the medication (Figure 4). This may have been chosen, not because it is what they truly do, but because it seemed the most appropriate answer, as it is not in line with how most of the students who answered the symptom that would make them use OTC medications. As seen in Figure 5, most respondents research (38.34%) about the medication and over fifty percent (50.21%) of the respondents were not aware of the side effects of OTC, while those who were aware still take their medication (90.16%). Furthermore, the highest rated factors that affect the purchasing of OTCs are quality, brand name, and price, which means that

students still want to make the most out of their money but will still buy branded medications as they may believe it is more effective or trustworthy. The students receive information on their medication mostly through a doctor (50.20%) and 56.52% of students ask information from a medical professional before purchasing their medication while those who do not ask believe that it was not necessary (43.85%). Friends and relatives are also a source as they can provide first-hand experience to the medication and advertisements make the students aware of the existence of medication and may also be influenced by how well the medication is portrayed. Pharmacists are at the middle as they are under-appreciated despite their supposed expertise in medication

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4 CONCLUSIONS

Based on the results obtained from the study, paracetamol, followed by Vitamins, were the most common OTC drugs among the UST undergraduate students. Majority of the students take OTC medications only when needed. Moreover, the students still lack full understanding on the full definition and coverage of self-medication using OTC medicines as evidenced by the possibility of improper drug selection. Lastly, the awareness on the proper usage of OTC by the students is still lacking as indicated by overdosing and inadequate knowledge on side effects.

Associating all these factors towards OTC medication use, drug misuse, improper drug selection, less or no drug dependence, and ignorance of side effects is present among UST Students.

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