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Practice of Self-Prescribed Analgesics from the Students of Physical Therapy

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Abstract

Objective: Determine the Practice of self-prescribed analgesics from the students of physical therapy. ***Methodology:*** 150 students of physical therapy were selected to be a part of the study through randomized sampling. All of them were informed of the study and after taking verbal consent were asked to fill a questionnaire pertaining to self-prescription. Data was analyzed using SPSS Version 20.0.The Chi Square test was applied to determine the statistical significance which was kept at P=<0.05. ***Results:*** 77(51.3%) male candidates and 73 (48.7%) female candidates in our study of 150 physical therapy students showed that there was no significant difference in self-prescription of systemic analgesics with P=0.156. ***Conclusion:*** The prevalence of Self-prescription was found to be high among physical therapy students. Better regulation of over the counter medicines and efficient counseling is highly necessary to reduce the amount of self-medication ongoing.

Keywords: Analgesics, Self-Prescribed, Practice, Physiotherapy, Students, Drugs.

INTRODUCTION

Self-prescription is a term given to the consumption of drugs without the prescription of a certified physician or medical consultant. Any combination of over the counter medication or prescription-only medicines can be self-prescribed such as analgesics, anti-pyretic, and antibiotics. The ongoing practice of self-prescription as a form of self-care has always gone onto trigger controversy; however, it is still a common practice worldwide [1]. These self-prescribed drugs can elicit a harmful or adverse response in return, doing more harm than good to the individuals taking those [2]. In Pakistan this trend has gained a lot of momentum with various age groups constantly taking part in this regularly. One group that has been the major reason for self-prescription and its constant presence in our society are medical students. Medical students ranging from the field of Medical, Dental, Pharmacy, Nursing, and Physical therapy all deem themselves qualified enough to self-prescribe themselves various medication, some of which are especially harmful and can cause serious side effects if misused. One example of the shear amount of self-prescription can be seen in the study in the University of Belgrade, Serbia in which 79.0% students were reported to be self-medicating[3]. The involvement of future health care workers in a practice that requires vast experience is unethical and with the passage of time may cause our community to lose faith in our health care system. Studies have gone onto show the ugly truth of the society that we are currently living in regarding the adverse habits of self-prescription, specifically among medical students, with drugs such as analgesics, antibiotics, and other common drugs to be very commonly enlisted as self-prescribed medications [4]. Unfortunately, non-stringent regulations on the sale and purchase of pharmaceuticals has made this practice accessible and given it the legs necessary to go on [5, 6]. Students of various health care fields are expected to abide by the rules deemed for prescribing medicine; however, they too have taken the easy route and prescribed medication to themselves. With the constant self-prescription practice taking place in Pakistan, a

study was carried out to determine the Practice of self-prescribed analgesics from the students of physical therapy.

With the prevalence of increasing health care costs worldwide, the practice of self-prescription has seen a sharp increase for symptomatic management of several conditions. People have gone onto save billions in expenditure with the total annual savings in seven European countries being estimated to be in excess for 16 billion euros [7]. This shows the vast amount self-medication can safe peoples' money who is already crumbling under various debts, however the benefits of self-medication can only be beneficial if this practice is done with ethically. A global research which spanned 50 countries concludes that consumers were willingly ready to self-medicate to treat minor conditions. Sadly there is still no clear cut way in which the everyday global population can safely ensure that they are self-medicating appropriately. Two factors of a drug are solely responsible for self-medication or prescription, the characteristics of the drug and how it is going to be used. There use can only be appropriate if all the particular information concerning that drug is easily available to the consumers, as well as the literature is comprehendible to the consumer [8].

Self-prescription is reported to be higher in developing countries [9]. This prevalence rate is higher due to the fact that people consider it unnecessary to consult a doctor or a physician for minor conditions such as headache, nausea, vomiting, fever, and cold. This practice is also influenced by the educational status, gender, age, and socio-economic status [10]. Medical students are a known for self-prescribing medication. The belief is that most of the students study pharmacology, the study of drugs and the interaction of drugs. They feel that they are more than capable of prescribing medications to themselves or to their immediate family member, thereby bypassing physicians. A study conducted on medical students of first year showed that 76.9% participants had a positive attitude towards self-prescription; however the knowledge regarding it was poor [11]. Another study that wanted to evaluate the self-prescription of analgesics among medical students concluded that self-prescription has expanded among medical students which is severely alarming for policy makers [12].

The two most common medications noticeably self-prescribed are analgesics and antibiotics. Analgesics agents are used to treat various types of pain ranging from joint, muscular, dental, or any visceral pain for that matter. Although most of the analgesics are safe to use, some can have serious side effects. Antibiotics are used to treat all sorts of bacterial infections in the body. Unfortunately, the inappropriate use of antibiotics through self-prescription has caused significant adverse effects. The most damning of them is the development of antibiotic resistance; apart from that drug toxicity and treatment failure are also seen [13, 14]. The growing number of bacterial strains becoming resistant to antibiotics is one of the most pressing public health problems of the recent decades, raising major concern worldwide [15, 16]. These resistant strains may make treatment of infectious diseases more difficult, causing an increase in infectivity, prolonged hospital stays and medical cost and more crucially can drive the mortality rate up. A study conducted on the students of medical sciences constantly use analgesics, due to reasons such as headache, dysmenorrhea, headache, stomach ache, bone, and joint pain. The study also concluded that most of the students took self-medication on the advice of family and friends (54.7%) [17].

Pakistan is a poor and developing country, with 79% of its primary care being provided through the private sector which can therefore be a cause of self-medication in the country [18].

The self-medication rate is steadily on the rise in Pakistan due to a continuous increase in sale of over the counter medicines in the country [19, 20]. A study conducted across 272 pharmacies showed that during the duration of the study, 4348 medicines were purchased for self-medication [21]. Another study conducted on nursing students from Dow University of Health Sciences, Karachi showed that more than half of the nursing students (52.7) were self-prescribing antibiotics, with fever and sore throat being the two major predisposing factors for self-medicating [22]. Another preliminary study conducted on 200 students showed that 42% of the students were self-medicating [23]. These studies along with countless other studies in the country goes to show that the prevalence of self-prescription amongst students is high, and they use mass media, previous history of use, and family and friends as the basis for their decision making ability.

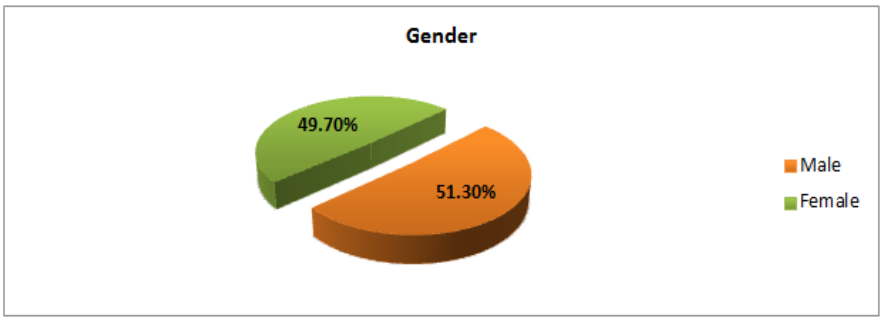
METHODOLOGY

A cross-sectional study was conducted among 150 students of Physical Therapy (DPT) of various years at Al-Tibri Medical College Isra University, with the study spanning for duration of six months. The data was collected only after proper ethical approval was taken and granted by the concerned reputable ethical committee of the institution. The 150 physical therapy students were selected through randomized sampling technique. Informed consent was taken from each and every individual that was included in the study, only after which the students were given a questionnaire and asked to fill the questionnaire accordingly. The names of all the participants were kept anonymous. SPSS version 20.0 was used for the analysis of the data. Qualitative data was presented in the form of frequency and percentage with the statistical significance being analyzed by applying the Chi-square test. The level of significance was set at P=<0.05.

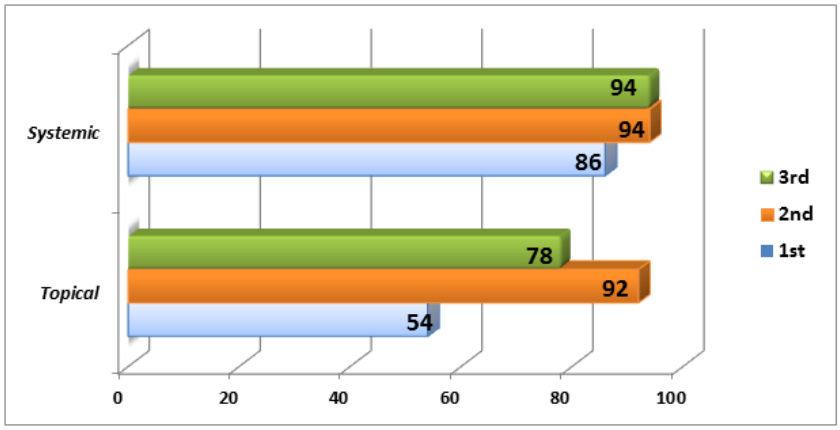
RESULTS

Total 150 numbers of medical students were participated in this study with Mean age of 20.21± 1.23. The percentage of gender based distribution was shown in Figure 1.1. The Positive Response of the participants was shown in the form of Frequency and percentage with level of significance in Table I.

The Percentage of commonly use of topical or systemic analgesic among the participants as shown in Figure 1.2. There was a significant difference were found among the medical students and P=0.006, while there was no significant difference was found in self-prescription of systemic analgesics with P=0.156.



	1st year	2nd year	3rd year	P=value
Symptoms	**Yes**	**Yes**	**Yes**	
Headache	47(94%)	50(100%)	47(94%)	**1.000**
Muscular	48(96%)	48(96%)	45(94%)	**0.208**
Dental	46(92%)	48(96%)	45(90%)	**0.702**
Abdominal	45(90%)	50(100%)	48(96%)	**0.156**
Joint	44(88%)	50(100%)	49(98%)	**0.018**
Fever	50(100%)	50(100%)	49(98%)	**0.221**
Urinary tract	14(28%)	27(54%)	26(54%)	**0.016**
Others	20(40%)	5(10%)	10(20%)	**0.018**



DISCUSSION

People in order to fully recover their health and safe themselves from the shackles of an expensive health care costs, may dwell on the wrong path of self-prescription of drugs. There are multiple sources in our society attaining towards self-prescription, which include relatives, friends, family members, pharmacist, these individuals recommended us these medications due to their prior experience and knowledge of the medication [24, 25]. Self-prescription is a global health crisis, one which needs addressing immediately. The prevalence of this issue is much more widespread in developing countries, due to ease in drug regulations. Studies have shown the prevalence of self-prescription to be massively high in countries such as Pakistan (84%), Saudi Arabia (78%), and Nigeria (67%) [26-28]. The prevalence of self-medication was found to 60-77% in Asian countries, and according to survey report in 2017 the 66% in Pakistan [29]. There has been a rise in the self-prescription of medicines among medical students to treat themselves or their fellow colleagues. Factors that have provoked self-prescription among medical students include easy of accessibility, cost-effectiveness, and cultural norms. Coupling this rise in prevalence with the already ongoing self-prescription by other demographics has led to many grave consequences. Data is present to suggest that this has led to the masking of various illnesses, created many

adverse effects, drug-drug interactions within the body, and antibiotic resistances. Physical therapy is another important field in the branch of medical sciences, helping the public with their pain management by prescribing them analgesics. It was crucial to evaluate the awareness and prevalence within physical therapy students concerning self-prescription. Our study concluded that physical therapy students were frequently prescribing medications to themselves. Another study, similar to our study conducted on physical therapy also showed that medication use was ongoing without the advice or supervision of a doctor. In that same study it was observed that 5%, 21%, 18%, 4%, 27%, 25% were self-prescribing medication on a daily, weekly, fortnight, monthly, yearly, and occasional basis respectively 30. The physical therapy students were prescribing themselves all kinds of drugs. Another study found that self-prescription was common amongst medical students, with headache (81.9%), cold (58.3%), and flu (53%) being the more frequent symptoms for which students were medicating on [31]. This shows that not just in the general population, but in the medical sector which is the backbone of our health care is also dwelling in the wrongful act of self-prescription. There needs to be more strict vigilance and surveillance to tackle this issue among students of medical fields as they are the future of our health care system. More stringent rules needs to be made in place by the concerned governing bodies to tackled this free flowing self-prescription trend among medical students. Students must also be made aware of the drastic consequences of this act and need to be counseled regarding self-prescription.

CONCLUSION

The practice of self-prescription was found to be prevalent among students of physical therapy. Students need to be properly guided and more strict rules need to be place regarding the easy availability of medications without prescription.

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