

Original Article

Pain, Self-Medication and Administration of Over-The-Counter Analgesics: An Observational Study

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Abstract

Objective Self-medication is identified as a behavioral approach that indulges an individual in the substance use as self-administration for the treatment of any physical or psychological pain. Over the counter drugs are the most widely used medicines that are commonly available and administered without the prescription of a doctor. The aim of the study was to identify the prevalence and associated factors that reinforce the self-administration of the analgesics.

Methodology An observational study had been designed that enrolled males and females participants of more than 18 years of age, from the city of Karachi. The recruited individuals were asked to fill out a structured questionnaire inquiring about the incidence of pain and prevalence of self-administration of analgesics. **Results** The study had 500 participants that involved 59% males and 41% females with the average age of 24.14 + 5.02 years. 100% of the participants reported some intensity of pain with average intensity being the most prevalent. It turned out that the individuals reported mild grades of physical and chemical with a high prevalence of headaches.

Conclusion The study concludes that even though the intensity of pain remains within the bearable edge, the availability of the pain killers, and accessibility of instant relief and also the possibility of decrease in tolerance has spoiled the population to opt for over the counter analgesics time and again.

Keywords

Pain, self-medication, OTC – Analgesics.

Introduction

According to the WHO, self-medication is a part of self-care. However, it may cause more harm than good due to any irresponsible use (WHO, 2009). Self-medication with analgesics is common and accepted and in order to avoid reimbursement it is even recommended by health systems. Self-medication, nevertheless, is not an easy task, since making choices is difficult for patients on the basis of the available standard information. Guiding information for patients has to be improved, but also physicians need to be trained how to handle self-medication

of their patients (Therapie, 2002). Self-medication is responsible to treat the diseases that do not require medical attention and may reduce overuse of medical services; self-medication's purpose is to solve minor health issues (Zaffani, et al., 2006). Self-medication can frequently cause unwanted side effects that would increase healthcare costs, creating an additional burden on the sanitary system (Talevi, 2010). Surveys show that OTC medications are considered as more effective as prescription medications (World self-medication industry, 2006). The reasons for using self-medication are poorly understood.

Most studies point to loose regulations about medication, and inadequate access to health care, as the main reasons (WHO, 2002). An observational cross-sectional study was conducted among people of all phases. Questionnaire consisted of close-ended questions related to personal data, symptoms that led to analgesic use, type of most used analgesics, most important source of information, and frequency of analgesics use by people (Amit & Nadeem, 2016). This study showed higher prevalence of analgesic use in males as compared to female (Kasulkar, 2015). People all over the world suffer common health problems (e.g. colds, headaches, digestive problems and muscle aches) in roughly the same frequency and respond in the same way to these problems (El Nimr et al., 2015). Surveys show that OTC medications are seen by many people as being as effective as prescription medications (World self-medication industry, 2006), the reasons for using self-medication are poorly understood (El Nimr et al., 2015). The aim of the present study was to estimate the prevalence of self-medication with drugs and complementary/alternative medicines among people of Karachi, Pakistan; to describe the patterns of medication use; and to identify reasons for self-medication (El Nimr et al., 2015). It was hoped that the results would guide decision-makers to take action to address self-medication and limit its potential effects. The most commonly used analgesic for self-medication was acetaminophen (paracetamol), followed by fixed-dose combinations of paracetamol and other non-steroidal anti-inflammatory drugs such as ibuprofen and diclofenac. Paracetamol is the most commonly available analgesic preparation with favorable side effect profile (Amit & Nadeem, 2016). The underlying motivation for this study is the prevailing health issues associated with inappropriate

use of drugs, which is increasingly becoming a challenge in our environment. This study was designed to determine the proportion of general outpatients who self-medicate, types of drugs used and the reasons for resorting to self-medication. It is hoped that our findings will guide us in evolving strategies to reduce self-medication to its barest minimum. In Pakistan, people have easy access to medication and can purchase prescribed medications, such as anti-acne medications and antibiotics, over the counter without the need for a prescription from a physician. One of the basic causes of self-medication is psychological factor.

Methodology

The survey was conducted among 500 participants including both males and females, of more than 18 years of age, from the city of Karachi. The recruited individuals were asked to fill out a structured questionnaire that consisted of 16 MCQ's and the data was analyzed using Spss and Microsoft excel. Questions regarding the demographic data (age, sex, educational level, income, occupation and marital status), incidence, origin, intensity of pain, knowledge about the analgesic bought and prevalence of self-administration of analgesics were asked to the subjects.

Results

The study had 500 participants that involved 59% males and 41% females with the average age of 24.14 ± 5.02 years. Results of the study suggested 100% of the participants reported some intensity of pain with average intensity being the most prevalent. It turned out that the individuals reported mild grades of physical pain with a high prevalence of head, neck and muscles pain and the less common are arthritis dysmenorrheal pain.

Table 1 Demographics

Age	24.3 + 5.07				
Gender (n)					
Male	295				
Female	205				
Education (%)					
Under-Matric	Matric	Intermediate	Under-graduate	Graduate	Post-graduate
0.2	1.6	14.4	49.3	29.3	5.2
Smoking (%)					
None	Occasional		Regular		
67.3	11.0		21.6		
Self-Medication History (%)					
Yes	10.4		No	89.6	
Family History (%)					
Yes	17.6		No	82.4	

Figure 1 Shows that approximately 15% of the targeted population reported the duration of pain for less than a day while the same ratio of population reported long lasting pain for more than three months and the highest % of people i.e. 27.7% reported the pain lasting for less than a month.

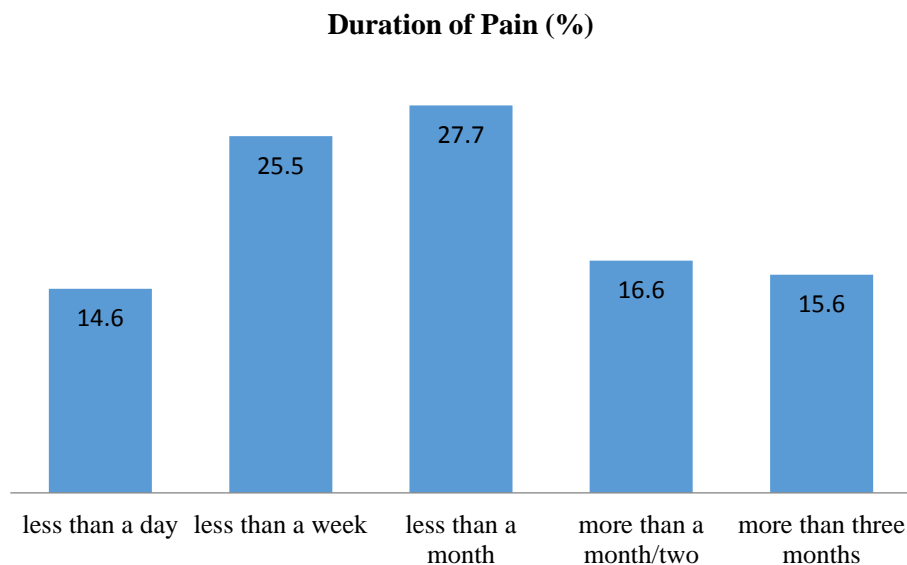


Figure 2 Shows the major reasons of pain as reported by the people, in which a large group of people i.e. (36% of the targeted population) reported pain as a result of previous illness while 18% reported pain because of accidents, 15 % reported pain to be as the result of any surgery and 21% of the subjects were unable to report the cause of pain.

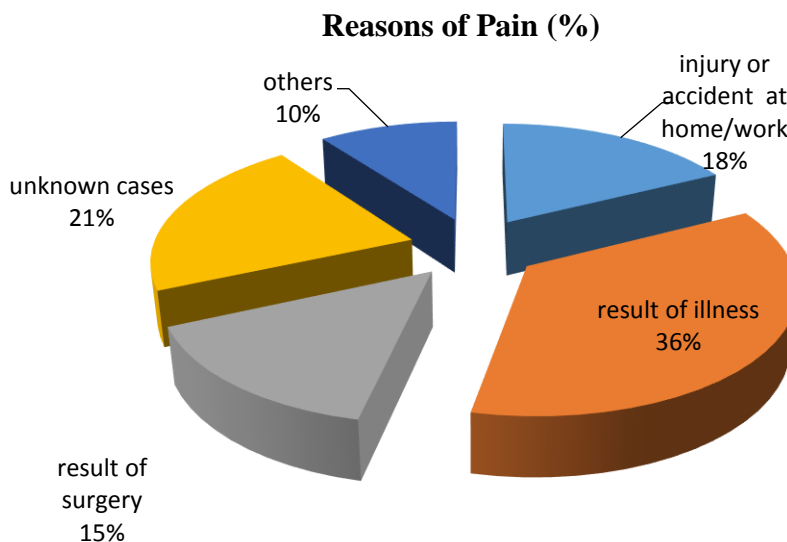


Figure 3 Majority of the population was observed purchasing the analgesics lastly in between one week to one month while approximately 40% people last bought analgesics less than one week ago.

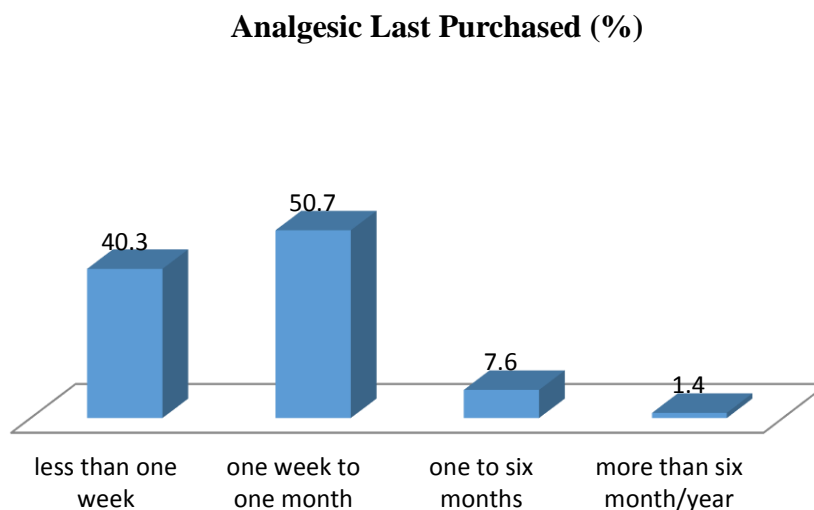
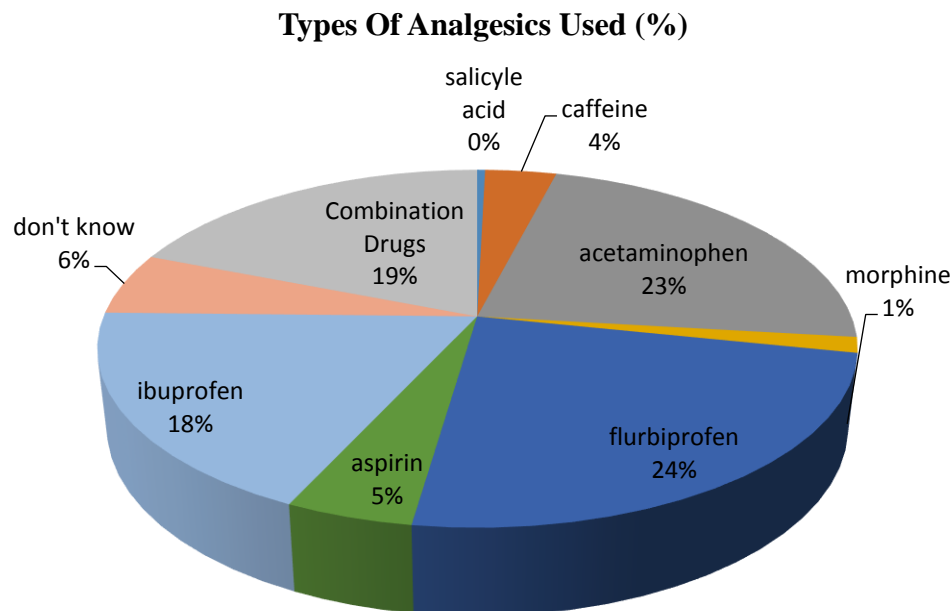


Figure 4 Showing types of analgesics people usually prefer in their routine with the maximum use of flurbiprofen (24%) and acetaminophen (23%) and normal use of ibuprofen and other combination drugs.



Conclusion

The study concludes that even though the intensity of pain remains within the bearable edge, the availability of the pain killers, accessibility of instant relief and also the possibility of decrease in tolerance has spoiled the population to opt for over the counter use of analgesics either prescribed or suggested by friends and relatives without seeking advice from the doctor. Subjects usually increase the dosage according to their own requirements because the prolong use of the drug makes the body resistant to the drug effect, so an increase in dose may help. Pain is one of the primary reasons that influence people towards self-medication and OTC (Gualano et al., 2015 & Langelove, 2016).

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Conflict of Interest

There is no conflict of interest between the authors.

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