ISSN:0976-3031

Available Online at http://www.recentscientific.com

CODEN: IJRSFP (USA)

International Journal of Recent Scientific Research
Vol. 8, Issue, 5, pp. 16949-16952, May, 2017

International Journal of Recent Scientific Research

DOI: 10.24327/IJRSR

Research Article

ASSESSMENT OF SELF MEDICATION AMONG DENTAL STUDENTS AND DENTAL PRACTITIONERS IN AND AROUND KANCHEEPURAM DISTRICT

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DOI: http://dx.doi.org/10.24327/ijrsr.2017.0805.0251

ARTICLE INFO

Article History:

Received 17th February, 2017
Received in revised form 21st March, 2017
Accepted 05th April, 2017
Published online 28th May, 2017

Key Words:

Self-medication, antibiotics and analgesics, self-treatment

ABSTRACT

A Non-doctor prescribing and self-medication of drugs is common in developing countries. People tend to act on their own for their health. Encouragement of self-care is seen as giving patients every opportunity to take responsibility and build confidence in their ability to manage their own health. Self-medication is defined as the use of medication whether modern or traditional for the purpose of self-treatment. Studies on self-medication showed that it is influenced by a variety of factors such as education, family, society, law, exposure to advertisements and the availability of drugs. The most common medication used for self- medications are antibiotics and analgesics.

Drug retail shops are frequently the first point of contact with the healthcare system. People tend to bypass the doctor visit, proceed to the pharmacy and buy the drug acting solely on their own instinct. Unlike other aspects of self-care and self-medication involves the usage of drugs and drugs have the potential to do good as well as harm.

This study aims to gather information about the awareness and prevalence of self-medication in the dental student fraternity and also to educate people to ensure safe practices.

INTRODUCTION

Medicine availability and distribution with drug programs improved over the years in many developing countries (7). According to William Osler, a great feature which differentiates man from animal is the desire to take medicines (13). Self-medicating is a practice as old as medicine itself (6) and increasingly considered as a component of self-care (8). This unhealthy, unnecessary, paternalistic approach (2) is endemic in developing countries (5).

Traditionally self-medication is defined as ''the taking of drugs, herbs or home remedies on one's own initiative or on the advice of another person, without consulting a doctor (2). As per WHO, 'self-medication is the selection and use of medicines by individuals to treat self-recognized illness or symptoms (13). This includes acquiesced medicines without a prescription, resubmitting old prescriptions to purchase medicines, sharing or using leftover medicines stored at home(17). It is one of the vital issues under debate (19).

Notwithstanding, self-medication can mitigate improvement of mild illness and thus relinquish needs to medical consult and alienate pressure on medical services supply especially in less developed and developing countries(3).

The prevalence rate of self-medication in Asia-4-75% (16,) European countries-68%, India-31%, Nepal-59%, Pakistan-51%(17), Palestine-98%(15), southIndia-92%(15), US-13%, UK-9%, Germany-11%, Australia-11%(21). The source of self-medication were families, friends, neighbors(2)pharmacist-9.4%,previous prescribed drugs (31.25%), advertisement in newspaper-14%,books-39.8%, magazines and internet-38.06%, own decision-30.16%(26). Health care system is the public's first point of contact which is drug retail shop (11). In India pharmacy and pharmacist play this role. 'White coat' guarantees trouble free access to drugs available in pharmacies (14). The growing trends of self-medication are urge of self-care, sympathy towards family members, lack of time and health services, financial constraints, ignorance, misbelieves, extensive advertisement(2), cost of drugs(11). It is divided into contextual factors (educational level (11), communities economic condition, individual factors (knowledge of people) (3). Predictive factors for self-medication are education and professional status (4). Interaction between prescribed drugs and self-medication is a risk factor (12) and health care

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provider must be aware of (11)inappropriate medical advice(12), Accidental drug poisoning(13). Drug interaction is defined as the action of an administered drug upon the effectiveness or toxicity of another drug administered earlier, simultaneously or later (6).

Antimicrobial resistance is a current problem worldwide particularly in developing countries as antibiotics are available without prescription(2).In Europe 0.1%-21% antibiotics are available without prescription (15).Developing world is the hub for the emergence of rapidly mutating and resistant strains of several pathogens including Pneumonia(16) S.typhi, Shigellaspecies (16), Neisseriagonorrhea (22). So inappropriate self-medication results in wastage of resources, increased resistance of pathogens and entails serious health hazards as adverse drug reaction, drug dependence.

Recent studies have demonstrated that adolescents present several risk behaviors, among which the most prevalent are physical inactivity, poor nutritional habits, smoking, and alcohol abuse (9). The highest rate of self-medication was reported in a sample of 155 older women with symptomatic insomnia, in which 70%used alcohol for sleep (10). So there seems to be people with insomnia use alcohol as self-medication. WHO has encouraged the use of self-medication without medical council to prevent and treat disease in a faster, efficient manner to reduce the load on healthcare centers in the rural areas (22). Young adults especially students usually made unprotected health related decisions that may affect their health (27%).

Medical students gained more practical knowledge than they did about the side effects of medicines in their senior years (25). As dental students had knowledge of pharmacology in II BDS, they are higher chances that they may indulge in self-medication (20%). Dental students are future prescribers of drugs and so it is important to find out how rational this drug use is (5).So this study was done to assess the dental students and practitioners knowledge and behavior towards self-medication.

METHODOLOGY

Study questionnaire was adapted from various similar studies conducted previously (17)

Study site- The study was carried out in and around kancheepuram district.

Study population- Was conducted on900peoples. No study was earlier conducted here.

Data collection & analysis

Data collected from participants were totally voluntary. Age, Sex, Year of study were noted.

Ethical issue

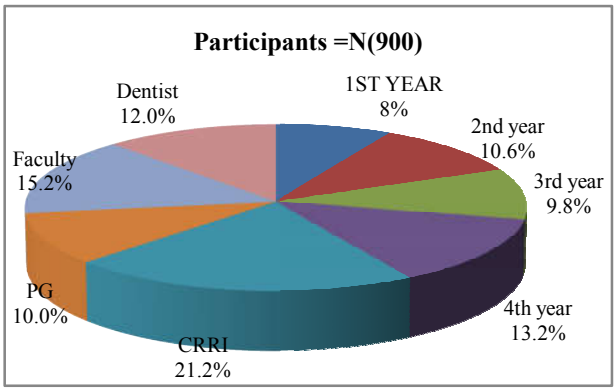
The study was approved by IRB (Institutional Review Board)

Operational definition

Self-medication is the selection and use of medicines by individuals to treat self-recognized illness or symptoms.

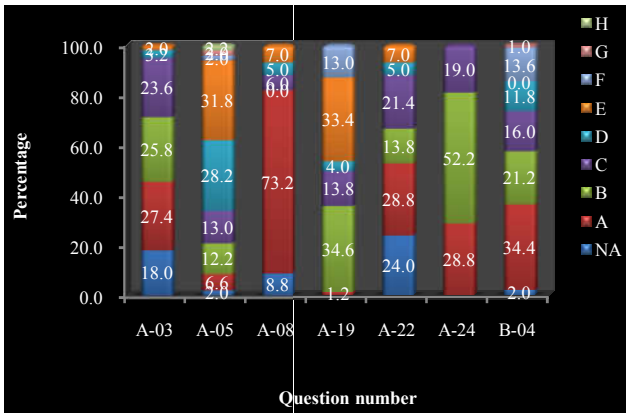
RESULT

The study includes 900 dental students, faculty and practitioners in our questioning study in the consistency of 38% males and 62%females in that female's majority in different age groups.



In this study 96% students and practitioners and faculty members are using self-medication. The prevalence shows the high members of self- medication

Type of Drugs	N	%
Antibioticis	337	41.3
Analgesics	400	45.5
Gastrointestinal Drugs	784	88.3
Cold and cough	836	96.1
Vitamins	468	51.2
Other drugs	175	29.6



Self-medication's use by the students are rarely or continuous from medical shops with old prescription 32%,self-medication 46% with their knowledge 8%, family members & friends 2% advises and pharmacist in medical shop 10%.

DISCUSSION

Drugs are chemical substances used or intended for use in the treatment, prevention or diagnosis of disease (shamsi&Bayati, 2010) (21). Obtaining and consuming drugs without the advice of the physician either for diagnosis, prescription or surveillance of treatment (11).We are unaware of the gravity of the situation (17). In a study by Dheeraj Deepak Kalra *et al* 82.2% of students stored medicines at home (20). A study in Italy showed 21.2% general public knew when it was appropriate to use antibiotics and 9.8% knew definition of antimicrobial resistance (16)

The person who consumes Self-medication with other drugs can cause harm only to him, the antibiotics have a global risk of spread of antibiotic resistance (19). According to Montgomery *et al* 2011 informal care paths were found to be common in the medical profession (21).

Ahmed *et al* also found that there was low awareness regarding drug interaction and adverse effects of common medications (22).Older ages people are keen about their health are more likely to use prescribed antibiotics (29).Treatment failures in self-medication were quite high (35%) (28). In most developing countries drug information by health providers in both primary health centers and hospitals is not yet optimal. (30)

OTC (Over the Counter) drugs selected and utilized popularly, can be highly effective in ameliorating symptoms while avoiding trivial or unnecessary physician office visits and more expensive but not always more effective, prescription drug use (19). OTC problem from escalating should be prevented by a strict system of check and balance (17).

Pharmacies have enabled self-medication and shop assistants and pharmacist have been acting as medication prescribers (9). The range of reported self-medication in the 70 included publications were 8.5-98% having a minor illness (15 studies), health care cost (9 studies), lack of adequate time to visit physician (11 studies), prior experience (7 studies) in using a drug and long waiting time to visit a qualified practioner (5 studies) were most frequently reported reasons of self-medication which is showed in a systemic review by Abdolreaza Shaghaghi *et al* in 2014(3). First product switched to non-prescription was Ibuprofen for treatment of pain in UK (1983) and US (1984) (2).

Cold medicines are used most often than other drug as self-medication (Barror, Griep & Rotenberg, 2009 (21). Self-medication increases as student's progress through medical schools (12). Prevalence in final year might be knowledge of medicines (8). More in female medical students (8,25) which was also supported by Lukovic *et al* (2), but Sanjeev Badiger *et al* 2012 shows male students (94%) more self -medication than female(14).Among self-medication, majority followed allopathic system of medicines followed by Ayurveda and homeopathic system (8).

Oral route followed by topical and inhalational was refused by majority of students as per study conducted in Gujarat (8). Commonly used were antipyretics (43%), analgesics (81%) (11), antibiotics (6%) (26), antihistamines (13%) (14), Paracetamol (11), NSAIDS (18), iron tablets (57%), tranquilizers (54%) (26).

CONCLUSION

Inevitable practice of self-medication's merits and demerits is made aware through proper education and the channel or medium through which self-medication reaches the public should be inspected regularly and properly channelized. Thus a holistic method of legally issuing medicines as per (sold on prescription only) basis be put in reality (16).

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How to cite this article:

Barathvikraman.RS *et al*.2017, Assessment of self Medication among Dental Students and Dental Practitioners in and Around kancheepuram District. *Int J Recent Sci Res.* 8(5), pp. 16949-16952. DOI: http://dx.doi.org/10.24327/ijrsr.2017.0805.0251

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