



Clinical Research

A PROSPECTIVE OBSERVATIONAL STUDY ON SELF-MEDICATION PRACTICES AMONG UNDERGRADUATE PHARMACY COLLEGE STUDENTS

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ABSTRACT

The selection and use of medicines by individuals to treat self-recognized illness or symptoms. Self-medication includes the use of non-prescription drugs and a range of different alternative medicines such as traditional products food supplements and herbal remedies

Material and Methods

This was a prospective observational study done among 270 pharmacy students. Of all the years of undergraduate pharmacy students. It's a questionnaire based study and history of self-medication in last six was taken.

Study duration: January to June 2017

Study setting: The study was done in pharmacy colleges of Rajahmundry, AP, India.

Inclusion criteria: of sound mind, can communicate by one of the means viz. speaking or writing, inhabitant of study area, consuming any category of medication without prescription, being medication for family members without prescription.

Exclusion criteria: Inhabitant outside the study area, of insane mind, unable to communicate, faculty, drug consumers with valid prescription, pregnant students, chronic illness students.

Results & discussion: In this study we have taken 360 students out of which 270 pharmacy are willing to fill the questionnaire. Out of 270 students in which there are 162 males and 108 female students are carried out in our study, in this 243 students are single and 27 were married, and all are ethnicity of India only, this program was conducted with 270 students and family history of employed were 162 and unemployed were 108. The most frequently requested category of drugs in this study were analgesics/antipyretics and other classes of drugs, there is not any argument against the use of analgesics and antipyretics on self-medication provided they are given with proper advice and not taken as treatment continuously as evidenced by other studies.

During an illness episode individuals commonly seek information and advice from a referral networks and this affects self diagnosis and treatment by providing reference points for perceptions of illness, by contributing knowledge by gained through experience and by sharing of medications.

Conclusion:

The study concluded that self-medication is found to be a common practice among the pharmacy graduates. Commonly used drugs are pain relievers, cough remedies; cold, creams etc are highly used by the students. The highlights the importance of impressing the students about the danger of self-medication. Nonetheless awareness should be constantly provided to the students for continuous safe self-medication.

KEYWORDS : Self medication, illness, perception, communicate, suppliments, analgesics, antipyretics

Introduction:

Self medication can be defined as the use of drugs to treat self diagnosed disorders or symptoms, or the intermittent or continuous use of prescribed drugs for chronic or recurrent disease or symptoms.^[1] It is a growing trend of self-care which has its positive and negative aspects.

In India, the drugs and cosmetics act 1940 (DCA), drugs and cosmetics rules 1945. DCA regulates the import, manufacture, distribution and sale of drugs and cosmetics.^[2] Self medication is the first line of action which makes self medication a common practice worldwide.^[3] When self medication is practiced responsibly it reduces the load on medical services, decreases the time spent in waiting to see the physician and saves cost in especially in economically deprived countries with limited health care resources.^[4] However this requires a certain level of knowledge and health orientation.^[5] Additionally self medication practices are exposed to the risk of increasing the burden and expensive it may results in ADH effects that will require medical attention.^[15]

Self care: Self care behavior is not new but rather the oldest and mostly widely used of all forms of behavior that effects the health of individuals. However the use of the terms of health field is now the contemporary, self care is a response of developments and attitudes regarding the role of individuals that occur over the past 100 years and

the rapid change in the organization content and delivery of forms helps survives also suggest another reason for maintaining the term self care and developing associated theory and concepts.^[7,8]

Self care concepts: It is defined as substitute, supplementary or additive to personal care, or as a discrete component in the health care delivery system. As there are many authors and professionals concerned with health and self-care, self care is active; it is participatory rather than passive receiving of care or direction given by professionals.^[6]

Products consumed during self medication:

Some products mark the underline disease and may cause several adverse effects of fatalities. For example in GERD gastro esophagus reflux disease, antacids can neutralize acid in the esophagus, but don't significantly affect gastric PH or prevent subsequent heart burn episodes.^[9] Histamine receptor 2 antagonists (eg: ranitidine) also rapidly develop tolerance with repeated dosing, and exhibit an analgesic effect that may provide heartburn relief which leaving the esophagus exposed to the acid.^[10]

Importance of self medication:

Students are willing and able to take more responsibility for their own health and by so doing a significant amount of resources could be utilized more in perusing areas than patient receiving consultation and prescription for minor alignments.^[12]

Legal issues in self medication:

As per drug a law applicable to India, self medication is permitted for OTC drugs but in India there is no specific list of OTC drugs. The list of OTC drugs is obtained through the exclusion method means the drugs which is not in schedule H or G is OTC. The medicines procured without prescription of registered medicinal practionare and mainly used as self medication.^[1,3]

There are no "Pharmacist" only medicines moreover the situation is more complex as a number of prescription medicines are used in self medication and easily available through with pharmacies without any prescription.^[12]

Through several studies are carried out in different population to evaluate the practice of self medication there is a paucity of studies on self medication practices among then which would give the insight on how to educate them on safety practice.^[4]

Materials and methods:**Study design:**

This is a prospective observational study among pharmacy students for all the years.

Study duration:

It's a nine month study during October 2016 to June.2017.

Study procedure:

The study is conducted by using a questionnaire prepared by using WHO guidelines and QOL as well as sociodemographic details.

Study site:

Pharmacy colleges in and around karimnagar who shown the interest for participation.

Ethical clearance:

The study was approved by Institutional Ethical Committee.

Inclusion and Exclusion criteria:

As the study is only among the undergraduates of pharmacy colleges of both sexes.

Inclusion criteria:

Of sound mind
Can communicate by one of the means viz. speaking or writing.
Inhabitant of study area.
Consuming any category of medication without prescription.
Being medication for family members without prescription.

Exclusion criteria: Inhabitant outside the study area.

Of insane mind
Unable to communicate
Faculty
Drug consumers with valid prescription
Pregnant students
Chronic illness students

The questionnaire contains the following parts:

Sociodemographic details, family history, kind of illness, self medication practices times in a month, year of education, any drug interaction, any adverse drug reactions observed, frequently reported illness, duration of illness, criteria of self diagnosis, types of requests for self medication, requested category of drugs, source of advice for self medication, outcomes of previous self medication, comments on self medication.

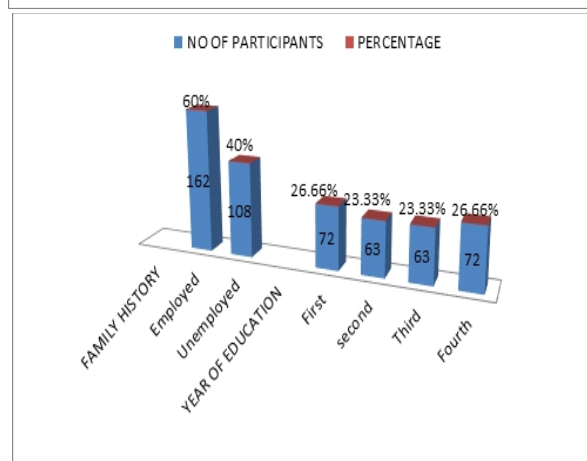
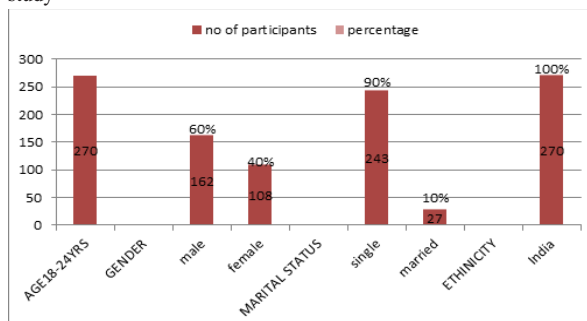
Results:**Table: Socio demographic details of the students:**

Three hundred and sixty students participated in the study. The socio demographic characteristic of the participants were presented in table 1

Parameters	Number of participants	Percentage
Age	18- 24	270
Gender		
Male	162	60
Female	108	40
Maratial status		
Single	243	90
Married	27	10

Parameters	Number of participants	Percentage
Ethnicity	270	100
India		
Programme	270	100
Students		
Family history	162	60
Employed	108	40
Unemployed		
Year of education	72	26.66
First	63	23.33
Second	63	23.33
Third	72	26.66
Fourth		

Table1: Socio demographic details of students participated in the study



Actual drug uses were asked to mention illness, or symptoms of illness that promoted them for that self medication the frequent reported illness were.

Table : Frequent reported illness by actual students

Illness/ symptoms	Number of students	Percentage
Fever	270	100
Skin disease	90	33.33
Cold	171	63.33
Cough	216	80
Eye disease	36	13.33
Skin disease	72	26.66
Gastric irritation	153	56.66
Eye disease	27	10

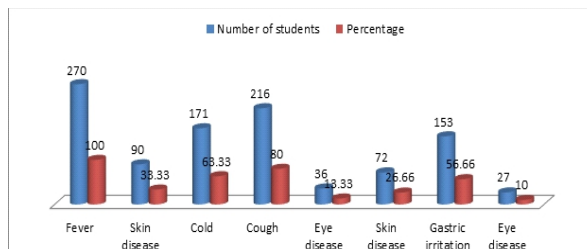
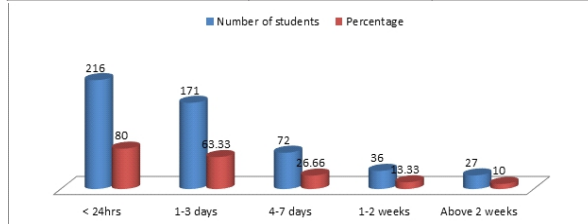


Table 2: Duration of illness of the students

The students with illness using are fever with a 100 percent, cough, cold, gastric irritations are as follows.

Duration of illness of the illness and by using self medication and how many days it took to cure is given below.

Duration of illness	Number of students	Percentage
< 24hrs	216	80
1-3 days	171	63.33
4-7 days	72	26.66
1-2 weeks	36	13.33
Above 2 weeks	27	10

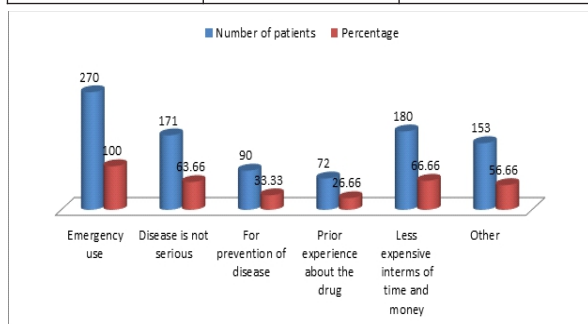


The maximum numbers of students who use self medication are recovered with in 24hrs and 1 to 3 days the least is about 2 weeks.

Table 4: Indicates the self diagnosis:

The main reason for the self diagnosis and self medication was due to the following reasons.

Self diagnosis/ self medication	Number of patients	Percentage
Emergency use	270	100
Disease is not serious	171	63.66
For prevention of disease	90	33.33
Prior experience about the drug	72	26.66
Less expensive	180	66.66
interms of time and money	153	56.66
Other		

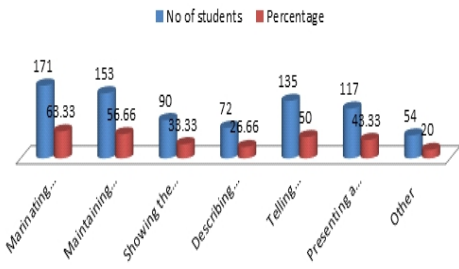


The main reason for going for self-medication of emergency use is 100 percent, less expensive and time saving is of 66.66% and disease is not serious.

The requesting drugs by showing an old sample or package of the drug product by presenting the following physical characteristics of the drug product.

Table 5: Types of self medication requests:

Requests of self medication	No of students	Percentage
Marinating the name of drug	171	63.33
Maintaining the category of drug	153	56.66
Showing the old sample of a drug	90	33.33
Describing the physical appearance of the drug	72	26.66
Telling symptoms of illness	135	50
Presenting a piece of paper	117	43.33
Other	54	20

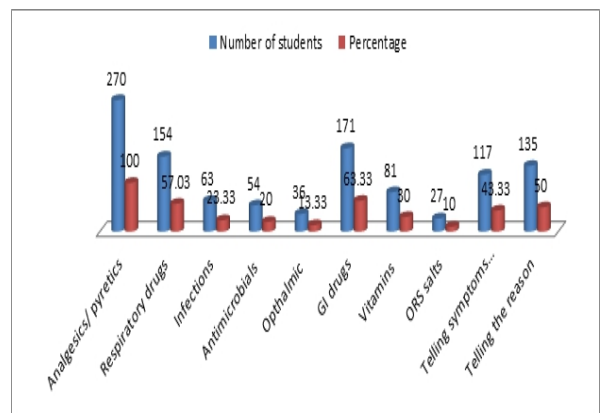


The most of the requests for the self medication are maintaining the name of the drug, category of the drug, appearance of the drug, telling the symptoms of the drug.

Further assessment of knowledge of the students on specific drug requests showed that more than 90% of the students know the name and usage of drugs.

Table 6: requested category of drugs:

Requested category of drugs	Number of students	Percentage
Analgesics/ pyretics	270	100
Respiratory drugs	154	57.03
Infections	63	23.33
Antimicrobials	54	20
Ophthalmic	36	13.33
GI drugs	171	63.33
Vitamins	81	30
ORS salts	27	10
Telling symptoms only	117	43.33
Telling the reason	135	50

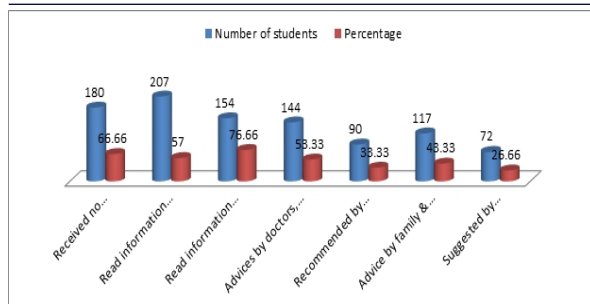


The most of the requested category of drugs are analgesics/ antipyretics, GI drugs, respiratory drugs, telling the reason, telling symptoms only and followed by vitamins.

Source of advice for self medication is the advice of the health care performance, physicians, nurses and pharmacist but now following the books and primary resources for self medication.

Table 7: Source of advice for self medication:

Sources of advice for selfmedication	Number of students	Percentage
Received no information	180	66.66
Read information from internet	207	57
Read information from books	154	76.66
Advices by doctors, nurses and other health workers without prescription	144	53.33
Recommended by pharmacist	90	33.33
Advice by family & friends	117	43.33
Suggested by tradational healers	72	26.66

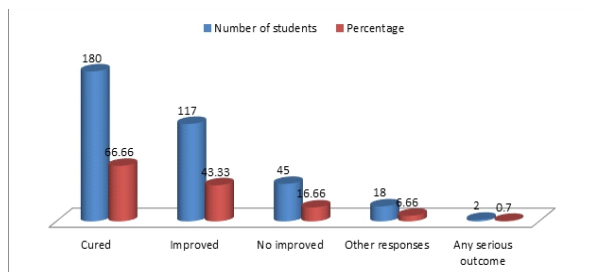


The main advices for selfmedication are mainly obtained from internet, and some students do not receive any information, read information from books, recommended by pharmacist.

The author asked whether they had better outcome/ better response after selfmedication, but the response gave the information after usage they choose medications because it saves money and time.

Table 8: Outcomes of previous selfmedication

Outcome	Number of students	Percentage
Cured	180	66.66
Improved	117	43.33
No improved	45	16.66
Other responses	18	6.66
Any serious outcome	2	0.70

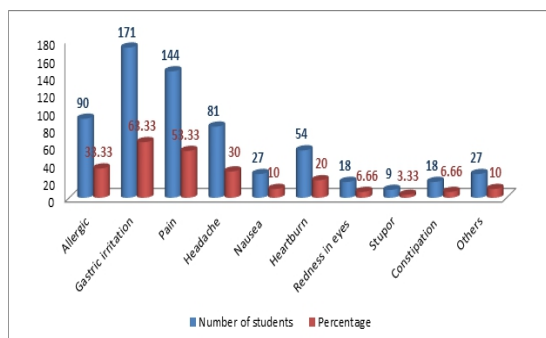


The better outcomes mainly observed were cured, improved and least was serious outcome of 0.7%.

The students who take the selfmedication sometimes observed the rashes and gastric irritation, itching.

Table 9: Types of interaction observed in students after self medication:

Types of interaction	Number of students	Percentage
Allergic	90	33.33
Gastric irritation	171	63.33
Pain	144	53.33
Headache	81	30
Nausea	27	10
Heartburn	54	20
Redness in eyes	18	6.66
Stupor	9	3.33
Constipation	18	6.66
Others	27	10

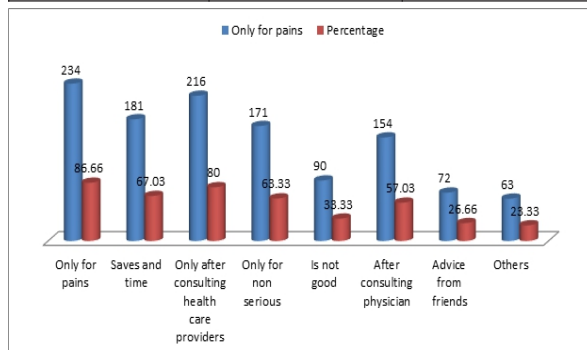


The maximum interactions was gastric irritation, pain, allergic and headache.

The selfmedication drugs which are used for the conditions and comments which are given by the students after self medication.

Table 10: Comments on self medication:

Comments	Only for pains	Percentage
Only for pains	234	86.66
Saves and time	181	67.03
Only after consulting health care providers	216	80
Only for non serious	171	63.33
Is not good	90	33.33
After consulting physician	154	57.03
Advice from friends	72	26.66
Others	63	23.33



The maximum number of self medication practices is for pain.

Discussion:

In this study we have taken 360 students out of which 270 (100%) pharmacy are willing to fill the questionnaire. Out of 270 students in which there are 162 (59.25%) males and 108 (40%) female students are carried out in our study, in this 243 (90%) students are single and 27 (10%) were married, and all are ethnicity of India only, this program was conducted with 270 students and family history of employed were 162 (60%) and unemployed were 108 (40%).

Frequent illness reported by the students mainly fever 270 (100%), cough 216 (96.26%), cold 171 (63.33%), gastric irritation 153 (56.66%), skin disease 90 (33.33%), others 72 (26.66%), eye disease 36 (13.33%), and ear infections 27 (10%), in which all the students used self medication for fever and followed by cough, cold, gastric irritation, and least by ear infections.

The information obtained that the students reported that the duration of illness very less when using self-medication, the duration of illness is below 24 hours is 216 (80%) students, 1 to 3 days is 171 (63.33%), and least is of above 2 weeks is 27 (10%).

The reason why students prefer self medication is mentioned in the questionnaire given for them the result is they mostly used in emergency 270 (100%), disease is not serious is 171 (63.33%), less expensive 180 (66.66%), and others of 153 (56.66%).

The requests for self medication by the students is mainly mentioning the name of the drug 171 (63.33%), and mentioning the category of drug 153 (56.66%), showing the sample of drug 90 (33.33%), telling the symptoms of the illness 135 (50%), presenting a piece of paper 117 (43.33%), and least is of others 54 (20%), by using these type of requests students are going for self medication.

The self medication practices among pharmacy students advice is taken from health care professionals, physicians, nurses and pharmacists. The students don't get any information is 180 (66.66%), received information from materials 154 (57.03%), received information from Google 207 (76.66%), advice by doctors 144 (53.33%), advice by family and friends 117 (43.33%) and suggested by traditional healers 72 (26.66%).

From the findings the students reported that the outcomes of previous medication is that the students who gone for self medication are cured 180 (66.66%), improved 117 (43.33%), no improvement 45 (16.66%), other responses 18 (6.66%), and least responses are serious reactions

are 02(0.7%), the students informed that when we used self-medication we are getting better outcomes while consulting a physician.

The reactions observed by the students after taking the self medications are gastric irritation of 171(63.66%), pain 144(53.33%), allergic 90 (33.33%), headache 81(30%), heartburn 54(20%), nausea 27 (10%), other 27(10%), redness in eyes 18 (6.66%), constipation 18 (6.66%), stupor 9(3.33), are the reactions observed by the students after self-medication.

The comments by the students after using the self medication are mainly used for pain 234(86.66%), saves money and time 181 (67.03%), only after consulting the health care providers 216 (80.00%), only for non serious 171(67.33%), is not good 90(33.33%), after consulting physician 154(57.03%), advice from friends 72 (26.66%), others 63(23.33%) are the comments given by the students.

The most frequently requested category of drugs in this study were analgesics/antipyretics and other classes of drugs, there is not any argument against the use of analgesics and antipyretics on self-medication provided they are given with proper advice and not taken as treatment continuously as evidenced by other studies.

During an illness episode individuals commonly seek information and advice from a referral networks and this affects self diagnosis and treatment by providing reference points for perceptions of illness, by contributing knowledge by gained through experience and by sharing of medications.

Conclusion:

The study concluded that self-medication is found to be a common practice among the pharmacy graduates. Commonly used drugs are pain relievers, cough remedies, cold, creams etc are highly used by the students. The highlights the importance of impressing the students about the danger of self-medication.

Nonetheless awareness should be constantly provided to the students for continuous safe self-medication.

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