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Research Article

A STUDY TO ASSESS THE PRACTICES OF SELF MEDICATION AND ITS ADVERSE EFFECTS AMONG WOMEN EMPLOYEES WORKING IN HEALTH CARE SERVICESSheik Abdul Hafeez¹ and K.V.Ramanamurthy²

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Abstract:

Objective: to assess the practices of self medication and its adverse effects among women employees working in health care services.

Study Design: A non experimental survey approach with descriptive design was selected to understand the practices of self medication & adverse effects among women employees working in health care services and also the relationship with variables. Study was conducted in OMNI Hospitals, Hyderabad.

Methods: Interview schedule was prepared and data was collected from 600 sample selected using convenient sampling technique. All the respondents actively participated in the study and it took about 30-45 minutes to collect the required data from each participant. Collected data was analyzed with the help of descriptive and inferential statistics using statistical package for the Social Sciences Software version-20. Graphical representation was made for significant findings.

Results: Majority of the women employees 437 [72.8%] stated that they are self medication users, 197 [32.8%] responded that they are having illness as frequent as less than 15 days, 210 said allergies as major type of illness, Majority 250[41.7%] of them have family & friends as their source of knowledge, The study results showed that majority of the sample are using self medication for cold and cough and skin ailments and effects are seen accordingly. Gastrointestinal effects [F=154.4], nervous system effects [F=119.7], urinary tract effects [F=58.56], psychological effects [F=28.38], allergic reactions [F=185.9] and dependence to drug [F=17.8]. The above also depicts that there is significant association existing between adverse effects of self medication practice questions like gastrointestinal effects, nervous system effects, urinary tract effects, psychological effects, allergic reactions, and dependence to drug.

Conclusion: Self medication is widely practiced among women employees in health care services due to the knowledge and hand to hand availability of drugs. Cough & cold medicines, analgesic and antipyretics were most commonly used drugs. Majority of them noticed side effects related to gastrointestinal system like nausea vomiting, allergic reactions and even some stated that they are dependent on certain drugs from a long period. Health care sectors should take necessary actions to ensure healthy environment and can control self medication in women employees.

Key words: self medication, women employees, adverse effects.

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INTRODUCTION:

Self medication is a human practice in which an individual uses a substance or any exogenous influence to self administers treatment for physical or psychological ailments. Self medication is known as the treatment of certain health problems or issues with medications particularly designed and labelled for use without medical supervision and approved as safe and effective for such use [1]. Medicines for self medication are often called 'non-prescription' or 'over the counter' (OTC) drugs and is available without a doctor's prescription through pharmacies. In some countries 'over the counter' OTC products are also available in supermarkets and other general outlets. Medicines that require a doctor's prescription are called prescription products and treatment products [1].

According to the WHO's definition, self medication is the use of drugs to treat self-diagnosed disorders or symptoms, or the intermittent or continued use of a prescribed drug for chronic or recurrent diseases or symptoms.

Medication usage refers to the human act of in taking medicines for prevention, diagnosis or treatment of illness, diseases in acute or chronic forms. Intake or Consumption of correct medication should be periodically monitored by health-care personnel's. The person who is using self medicines report if any harmful symptoms reported back to the health care personnel who can further diagnose and prescribe the needed drugs to alleviate the unwanted symptoms [2].

Over the counter (OTC) drugs are a form of self medication. The buyer diagnoses his/her own illness and buys a specific drug to treat it.

OTC products provide symptom relief for conditions that do not always require medical intervention. A person with minor illness like fever, common cold, cough, diarrhoea, wounds, infections, stomach upset like nausea, vomiting, and constipation might receive suggestions and advice from family, friends, or even total strangers in India near or far about medicines, specially about usage of antibiotics [3].

Factors influencing frequency of self medication in the previous studies are age, educational level, family attitudes, advertising of drug manufacturers, legislation regulating dispensing and sale of drugs, previous experiences with the symptoms or disease, significance attributed to the disease [4] and economic situation of respondents [5].

Such persons with minor illness will either consult a medical shop, drug store (retail pharmacy) and obtain

medicine, or discuss with elders of family or a neighbour who may have some tablets left over from their previous illness and thus procure the medicine from them i.e., elders of family or a neighbour [6].

Every day, everywhere, consumer's, patients or persons reach for self care products to help them through their common health problems. They do so because it may be easier for them, it may be more cost or time efficient, they may not feel their situation merits making an appointment with a healthcare professional, or they may have few or no other options. The challenge and opportunity for governments, healthcare professionals, and providers of self medication products, then, is to have a responsible framework in place for self medication [7].

There is evidence that consumers patients or persons can do practice self medication responsibly. There is also support showing consumers recognize and respect non prescription medicines. As a whole, they use them appropriately, carefully, and safely; and they read non prescription drug labelling. Self care perform remain defined as much a most important populace fitness resource between the health care system. It concerns the health things to do yet health choices regarding men and women or includes self medication, self-treatment, conventional aid into illness, or first aid among everyday life. The choice in conformity to allow products in self medication through over the counter (OTC) sale is currently large activity in several countries. Drug regulatory and health authorities need to think about the kinds of medicinal products & ways of their marketing is appropriate, safe & rational towards the public health. It has become extensively popular that self medication has a necessary role in practice of move within the health care system. Recognition of the responsibility about persons for their personal health, or awareness so much expert care because minor illnesses is often needless hold contributed to this view [8].

For the conduction of present study intense review of those studies has been carried out in five categories, and findings obtained in previous studies, gave an idea of conducting the study. Major studies concluded that the practice of self medication was more in women to men and more over I have observed that some of my women colleagues in my working place practicing self medication and hence the present study was considered as choice of obtaining findings in working women in health care services in Hyderabad.

RESEARCH METHODOLOGY:

A non experimental survey approach with descriptive design was selected to understand the practices of self medication & adverse effects among women employees working in health care services and also the relationship with variables. Study was conducted in OMNI Hospitals, Hyderabad, with formal approval from Institutional Ethical Committee from 14-02-2017 to 16-08-2017. Interview schedule (questionnaire) was prepared and data was collected with due consent from 600 sample selected using convenient sampling technique. All the respondents actively participated in the study and it took about 30-45 minutes to collect the required data from each participant. Collected data was analyzed with the help of descriptive and inferential statistics. Results were inferred at respective level of significance using statistical package for the Social Sciences Software version-20. Graphical representation was made for significant findings.

RESULTS:

The methods of analysis chosen for the present study depend on the objectives, hypotheses, the purpose and use of the study.

The data was entered in the master sheet for analysis and interpretation. It was done with the help of description and inferential statistics to examine the objectives and to test the hypothesis of the study. Data was coded and processed. Data was computed by using descriptive and inferential statistical procedures. Descriptive statistical procedures used were calculation of frequency, percentage, mean and standard deviation. Inferential statistical methods used were Chi Square test and ANOVA.

Results states that majority of the women employees 437 [72.8%] stated that they are self medication users and 163 [27.8%] respondents said that they are non on direct self medication but on the medication prescribed to them long back and they use the same medicine at times when required. When coming to the variable occurrence of frequent illness, 197 [32.8%] responded that they are having illness as frequent as less than 15 days due to their inherited immunity followed by 178 [29.7%] said they have illness in 60-120days frequency, 131[21.8%] with 30-60days frequency and only 94 responded as 15-30days frequency of occurrence if illness leading to self medication.

When the type of illness was taken into consideration, out of 600 women employees, 210 said allergies as major type of illness for which they use self medication, 184[30.7%] as respiratory infections, 108[18.0%] with physical insomnia, 89[14.8%] with

occupational body aches and only 9[1.5%] responded as other un mentioned reasons as menstrual pain and skin sores.

Study also shows the data pertaining to self medication type. It explains that 274[45.8%] women use drugs under schedule G, 114[19.0%] use Schedule H drugs, 110[18.3%] are OTC Drug users and 102[17.0%] use drugs under category of Ayurvedic and Homeopathic medicines.

When the sample were analyzed based on their sources of knowledge regarding self medication, the following conclusions were drawn. Majority 250[41.7%] of them have family & friends as there source of knowledge, 248[41.3%] as books, 65[10.8%] have mass media as source in gaining knowledge regarding medications and 37[6.2%] as lectures heard in study time as knowledge source.

It also describes that majority of the women employees 312 [52.0%] are in 18-25yrs age group followed by 246 [41%] in 26-35 yrs age, 34 [5.7%] in 36-45yrs and only 08[1.3%] belong to 46 yrs and above age group. It also gave a note on area of residence where the sample of the study belong to as majority 362[60.3%] belonging to urban area and rest 238[39.7%] belong to rural area of living.

When the sample were categorized based on their marital status and use of self medication, following results were obtained. 263[43.9%] of them were unmarried, 258[43.0%] were married, 60[10%] were single and 19[3.1%] of them were widowed and majority of the women employees of study i.e., 431[71.9%] have graduation as their educational qualification, 79[13.1%] are post graduates, 55[9.2%] employed based on intermediate education and 35[5.8%] with secondary school education working as hospital support system and when compared in religion category majority of 423[70.5%] were Hindu's, 146[24.3%] were Christians, 16[2.7%] are belonging to other religion groups and 15[2.5%] are Muslims, majority of the women employees 408 [68%] belong to nursing department, 79[13.2%] are in hospital support services department, 74[12.3%] pharmacy department and 39[6.5%] are in to Paramedical department which are considered for self medication study.

When the years of experience was taken into consideration, out of 600 women employees, 406 [67.6%] are with 1-5yrs of experience, 135 [22.5%] are with 6-10yrs experience in hospital area, 33 [5.5%] with 11-15yrs of experience and 26 [4.4%] are with more experience of 16yrs and above in their respective areas of work experience in varied health care sectors.

Study also shows the data pertaining to self medication based on Family Monthly Income the following conclusions were drawn. 325[54.2%] employees were earning 10,000 to 20,000 rupees per

month, 155[25.8%] earn Rs 20,001 to 30,000, 63[10.5%] with monthly pay between 30,001 – 40,000 rupees and only 57[9.5%] with 40,000 rupees and more.

Table 1: Distribution of women employees according to their Health variables

Variables	Frequency	Percentage
Are you among Self medication users		
Yes	437	72.8
No	163	27.2
Occurrence of frequent illness		
Less than 15days	197	32.8
15-30 days	94	15.7
30-60days	131	21.8
60-120 days	178	29.7
Type of illness		
Allergies	210	35.0
Respiratory infections	89	14.8
Occupational body aches	184	30.7
Physical insomnia	108	18.0
Any other	09	1.5
Self medication type		
Schedule G	274	45.7
Schedule H	114	19.0
OTC Drugs	110	18.3
Any other specify	102	17.0
Source of knowledge		
Books	248	41.3
Family & Friends	250	41.7
Mass media	65	10.8
Lectures	37	6.2

Table 2: Distribution of women employees according to their demographic variable

Variables	Frequency	Percentage
Age in years		
18-25 yrs	312	52.0
26-35 yrs	246	41.0
36-45 yrs	34	5.7
46 yrs & above	08	1.3
Area of residence		
Rural	238	39.7
Urban	362	60.3
Marital status		
Married	258	43.0
Unmarried	263	43.9
Widowed	19	3.1
Single	60	10.0
Educational qualification		
Secondary	35	5.8
Intermediate	55	9.2
Graduation	431	71.9
Post graduation & more	79	13.1
Religion		
Hindu	423	70.5
Muslim	15	2.5
Christian	146	24.3
Others	16	2.7

Table 3: Distribution of women employees according to their economic variables

Variables	Frequency	Percentage
Working department		
Nursing	408	68.0
Pharmacy	74	12.3
Paramedical	39	6.5
Hospital support services	79	13.2
Years of experience		
1-5 yrs	406	67.6
6-10 yrs	135	22.5
11-15 yrs	33	5.5
16 yrs & above	26	4.4
Family monthly income		
Rs. 10,000 – 20,000	325	54.2
Rs. 20,001 – 30,000	155	25.8
Rs. 30,001 – 40,000	63	10.5
Rs. 40,001 & Above	57	9.5

The study results showed that majority of the sample are using self medication for cold and cough and skin ailments.

It also proved that majority of the drugs used for self medication are drugs or tablets under schedule H, under the classification given by CSA, and drugs and cosmetics act 1940 and rules 1945, India.

Study gives significant 'F' value than the table value for all the adverse effects of self medication practice questions like Gastrointestinal effects [F=154.4], Nervous system effects [F=119.7], Urinary Tract

Effects [F=58.56], Psychological effects [F=28.38], allergic reactions [F=185.9] and dependence to drug [F=17.8]. It also depicts that there is significant association existing between adverse effects of self medication practice questions like Gastrointestinal effects, Nervous System Effects, Urinary Tract effects, Psychological effects, allergic reactions and dependence to drug.

Table 4: Responses of women employees based on practice questions on adverse effects of self medication

Variables	Adverse effects of self medication			
	Responses			
	Yes		No	
	F	%	F	%
GASTROINTESTINAL EFFECTS				
Loss of appetite	496	82.4	104	17.6
Nausea/ Vomiting	127	21.1	473	78.9
Heart Burn	67	11.1	533	88.9
Abdominal pain	89	14.8	513	85.2
Blood in vomit	33	5.5	569	94.5
Constipation	51	8.5	551	91.5
Diarrhoea	55	9.1	547	90.9
NERVOUS SYSTEM EFFECTS	Yes		No	
	F	%	F	%
Involuntary movements of the face/arms/legs	42	7.0	560	93.0
Numbness in extremities	47	17.8	555	92.2
Dizziness	109	18.1	493	81.9
Blurred vision	46	7.6	556	92.4
Loss of consciousness	33	5.5	569	94.5
URINARY TRACT EFFECTS	Yes		No	
	F	%	F	%
Difficulty in urination	74	12.3	528	87.7
Loss of bladder control	49	8.1	553	91.9
Burning Micturition	74	12.3	528	87.7
Dribbling of urine	29	4.8	573	95.2
PSYCHOLOGICAL EFFECTS	Yes		No	
	F	%	F	%
Mood swings	41	6.8	561	93.2
Confusion	65	10.8	537	89.2
Impaired thinking	49	8.1	553	91.9
Insomnia	46	7.6	556	92.4
Anxiety	57	11.1	535	88.9
Disturbed senses	48	8.0	552	92.0

ALLERGIC REACTIONS	Yes	No	Yes	No
	F	%	F	%
Skin rashes	108	17.9	492	82.1
Itching	92	15.3	510	84.7
Inflammation of skin	34	15.6	568	94.4
Redness	72	12.0	530	88.4
Eruption of Blisters	30	5.0	570	95.0
Tenderness	54	9.0	546	91.0
DEPENDENCE TO DRUG	Yes		No	
	F	%	F	%
Feel weakness without particular drug intake	101	16.8	500	83.2
Have strong urge to take particular drug used	62	10.3	540	89.7

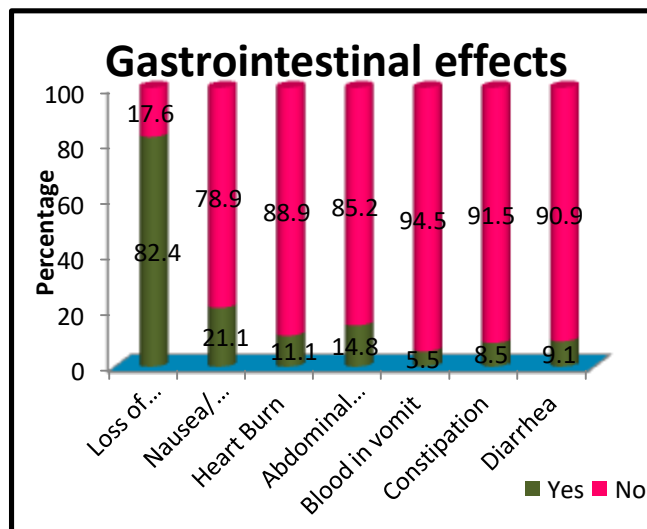


Fig. 01: Distributions of women employees according to their gastrointestinal effects of self medication

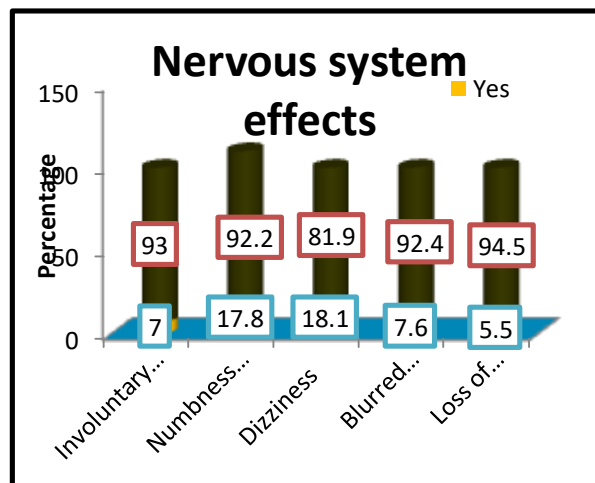


Fig. 02: Distributions of women employees according to their Nervous system effects of self medication

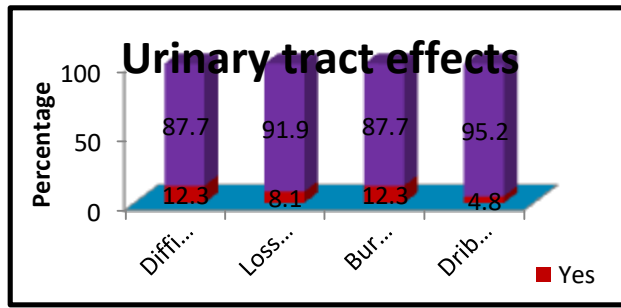


Fig. 03: Distributions of women employees according to their urinary tract effects of self medication

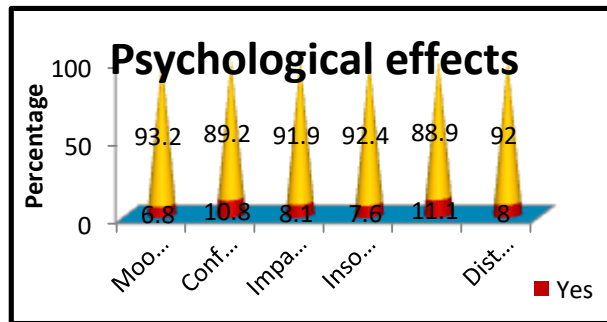


Fig. 04: Distributions of women employees according to their psychological effects of self medication

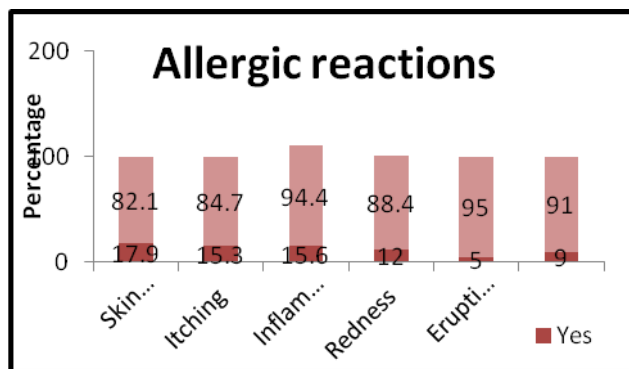


Fig. 05: Distributions of women employees according to their allergic reactions of self medication

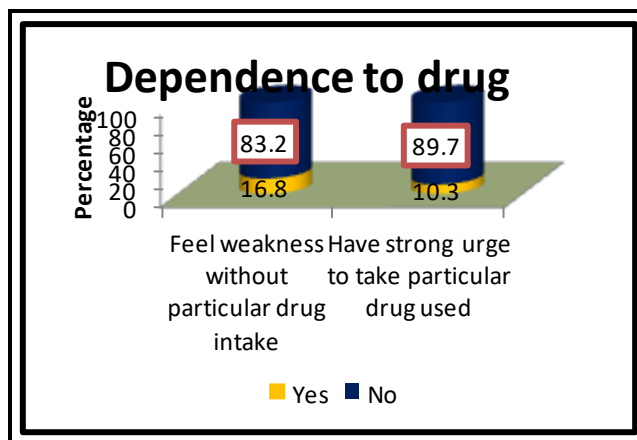


Fig. 06: Distributions of women employees according to their dependence of drug in self medication

DISCUSSION:

The misuse of non prescription drugs amongst young people has become a serious problem. This raises concerns of incorrect self diagnosis, drug interaction and use other than the original indication. In several studies, it has been found that self medication is associated with many drugs related problems such as wastage of resources, increased resistance of pathogens and serious health hazards such as adverse drug reactions, drug interactions. Even if the drugs were used correctly, self use may result in a number of serious health hazards. Adherence to treatment and quality of life are also affected by self medication.

Self administering of drugs results in many physiological changes that could theoretically affect absorption, first pass metabolism, protein binding, distribution and elimination of the drug. An appropriate dose for one person can be an overdose for another, thus the individual who is ill, advised in subjecting himself to potentially dangerous self medication. A major drawback of self medication is the lack of clinical evaluation of the patients, which could result in misdiagnosis and delay in appropriate treatment. Inappropriate self medication at the community level could lead to the drug induced diseases and waste of expenditure. Since over the counter drugs can be used for self medication without the advice of the physician, their use is often not recorded in the individual medication history. The need to treat OTC drugs like all the other medications and to monitor self medication practices are more and more recognized.

Majority of the women employees 437 [72.8%] stated that they are self medication users and 163 [27.8%] respondents said that they are non on direct self medication but on the medication prescribed to them long back and they use the same medicine at

times when required. When coming to the variable occurrence of frequent illness, 197 [32.8%] responded that they are having illness as frequent as less than 15 days due to their inherited immunity followed by 178 [29.7%] said they have illness in 60-120days frequency, 131[21.8%] with 30-60days frequency and only 94 responded as 15-30days frequency of occurrence if illness leading to self medication.

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When the sample were analyzed based on their sources of knowledge regarding self medication, the following conclusions were drawn. Majority 250[41.7%] of them have family & friends as there source of knowledge, 248[41.3%] as books, 65[10.8%] have mass media as source in gaining knowledge regarding medications and 37[6.2%] as lectures heard in study time as knowledge source.

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majority 362[60.3%] belonging to urban area and rest 238[39.7%] belong to rural area of living.

When the sample were categorized based on their marital status and use of self medication, following results were obtained. 263[43.9%] of them were unmarried, 258[43.0%] were married, 60[10%] were single and 19[3.1%] of them were widowed and majority of the women employees of study i.e., 431[71.9%] have graduation as their educational qualification, 79[13.1%] are post graduates, 55[9.2%] employed based on intermediate education and 35[5.8%] with secondary school education working as hospital support system and when compared in religion category majority of 423[70.5%] were Hindu's, 146[24.3%] were Christians, 16[2.7%] are belonging to other religion groups and 15[2.5%] are Muslims, majority of the women employees 408 [68%] belong to nursing department, 79[13.2%] are in hospital support services department, 74[12.3%] pharmacy department and 39[6.5%] are in to Paramedical department which are considered for self medication study.

When the years of experience was taken into consideration, out of 600 women employees, 406 [67.6%] are with 1-5yrs of experience, 135 [22.5%] are with 6-10yrs experience in hospital area, 33 [5.5%] with 11-15yrs of experience and 26 [4.4%] are with more experience of 16yrs and above in their respective areas of work experience in varied health care sectors.

Study also shows the data pertaining to self medication based on Family Monthly Income the following conclusions were drawn. 325[54.2%] employees were earning 10,000 to 20,000 rupees per month, 155[25.8%] earn Rs 20,001 to 30,000, 63[10.5%] with monthly pay between 30,001 – 40,000 rupees and only 57[9.5%] with 40,000 rupees and more.

Health variables like Occurrence of frequent illness ($\chi^2= 13.0$), type of illness ($\chi^2= 5.7$), self medication type ($\chi^2= 76.9$) and source of knowledge ($\chi^2= 46.2$) have significant association with self medication.

Demographic variables like age ($\chi^2= 0.85$), area of residence ($\chi^2= 3.51$), Marital status ($\chi^2= 5.12$), Educational status ($\chi^2= 0.90$) and religion ($\chi^2= 5.2$) and economic variables like Working department ($\chi^2= 5.70$), years of experience ($\chi^2= 1.67$) and family monthly income ($\chi^2= 5.12$) have no significant association with self medication.

ANOVA of women employees based on characteristic health variables reflects that F value is significant for the Occurrence of frequent illness

($F=10.23$) and Self Medication type ($F=73.22$). these values when compared to the table values, are higher therefore researcher rejects null hypothesis [H_0] and it is inferred that there is significant association between occurrence of frequent illness and self medication type of women employees to their self medication practices.

ANOVA of women employees based on characteristic demographic variables reflects that F value is not significant for the age ($F=0.810$), area of residence ($F=0.11$), marital status ($F=0.018$), levels of education ($F=0.454$) and religion ($F=0.14$). As the calculated values are more than the table values, the researcher accepts null hypothesis [H_0] and it is inferred that there is no significant association between age in years, area of residence, marital status, levels of education and religion of women employees to their self medication practices.

ANOVA of women employees based on characteristic economic variables reflects that F value is not significant for the Working department ($F=3.55$), years of work experience ($F=0.74$) and family monthly income ($F=3.63$) therefore researcher accepts null hypothesis [H_0] and it is inferred that there is no significant association between economic variables like working department, years of work experience and family monthly income of women employees to their self medication practices.

ANOVA of women employees based on practice questions on self medication drug schedules depicts that significant 'F' value to the table value for all the self medication practice questions like indication for self medication ($F=2597$) and drug used for self medication ($F= 1136$) with their drug schedule depicts that there is significant association existing between self medication practice questions like indication for self medication and drug used for self medication with their drug schedules.

ANOVA of women employees based on practice questions on adverse effects of self medication depicts that significant 'F' value than the table value for all the adverse effects of self medication practice questions like gastrointestinal effects [$F=154.4$], nervous system effects [$F=119.7$], urinary tract effects [$F=58.56$], psychological effects [$F=28.38$], allergic reactions [$F=185.9$] and dependence to drug [$F=17.8$]. The above also depicts that there is significant association existing between adverse

effects of self medication practice questions like gastrointestinal effects, nervous system effects, urinary tract effects, psychological effects, allergic reactions and dependence to drug.

CONCLUSION:

Self medication is widely practiced among women employees in health care services due to the knowledge and hand to hand availability of drugs. The subjects in the study show good knowledge towards self medication and positive attitude towards favoring it is acceptable and not a wrong activity in maintaining health in day to day life. Cough & cold medicines, analgesic and antipyretics were most commonly used drugs. Headache, fever, sore throat, and cough were the most common indications for self medication as stated by samples under study. Retail Pharmacies are the main source for procuring self medication drugs. Prevalence of self medication was high due to minor illness and prior experience of diseases. The risk of wrong diagnosis, adverse reaction, drug dependence, delay in seeking medical advice, were the most reasons against self medication practice.

Results obtained will be submitted to the Hospital Authorities and management and can take necessary actions in reducing the self medication by conducting workshops, continuous education programmes within hospitals.

Results analyzed should be informed to Government authorities to formulate norms against wrong supply and issue of non prescribed drugs even to employees in health care services.

Wide range of awareness programmes can be systematically planned and conducted on self medication and its adverse effects on health.

Exclusive workshops for women can be organized to explain the complications of non prescription drugs. Request and encourage government and pharmacy organizations to formulate strict policies in supplying and issuance of OTC drugs.

Reasons for self medication should be identified and measures like personal and group counseling should be given to the needy to reduced further use of medicines without prescription.

Every pharmacy should strictly follow the government acts in accordance to buying and selling medicines with reference to the government guidelines.

Authorities should only allow qualified & eligible pharmacists to sale the drugs, so that potential high

risk due to drug dose, duration can be controlled to some extent.

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