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A Study Of Self-Medication Patterns And Drug Use Behavior In Non-Teaching Staff Working In A Tertiary Care Center

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Abstract:

Introduction: Irrational use of medicines is a major problem worldwide. WHO estimates that more than half of all medicines are prescribed, dispensed or sold inappropriately, and that half of all patients fail to take them correctly. The present study was under taken with the objectives to assess the self-medication patterns and drug use behavior in non teaching staff working in a tertiary care center, to study the various socio-economic determinants resulting in self-medication in the above group, to give health education about rational drug usage. Methodology: Pinnamaneni Siddhartha Institute of Medical Sciences and Research Foundation is the selected tertiary health care center. It is located in Gannavaram, Krishna district, Andhrapradesh. All the non-teaching staff were included in the study. This group consists of administrative, technical, non-technical and class IV workers. Sample size of 195 members were present in this study. Results: Out of the 195 participants, 64.6% of study subjects were female, Majority of the participants (65.6%) were aged ≥ 30 Years, 107 (54.9%) were class IV workers and remaining 88 (45.1%) were grouped under class I, II, III. 45.6% of study participants were purchasing drugs directly from the medical shop during their illness. Only 47.20% of study participants purchased and taken full course of antibiotics. 62.60% of participants did not have any knowledge about Antibiotics and Anti Microbial Resistance (AMR). Conclusions: Results are indicating a need for changing policy from top to bottom, Information regarding Anti Microbial Resistance should be given from time to time to Non-Teaching cadre. Healthy non teaching staff with more knowledge about public health problems can act as Role Models in the society.

Introduction

According to WHO's definition, self medication is "The selection and use of medicines by individuals to treat self-recognized illnesses or symptoms". Self-medication includes the use of nonprescription drugs and a range of different alternative medicines such as herbal remedies, food supplements, and traditional products. In most illness episodes, self-medication is the first option which makes self-medication a common practice worldwide.^[1] Medicines for self-medication are often called 'nonprescription' or 'over the counter' (OTC) and are available without a doctor's prescription through pharmacies. Medicines that require a doctor's prescription are called prescription products (Rx products)^[2]. India does not have a list of OTC products. The prevalence of the practice of self-medication depends on many factors like nature of the disease, educational qualification of the person, nonavailability of the specialized person (during traveling or such conditions), etc.^[3] Use of self medication is highly prevalent in both urban and rural community varying from 32.5% to 81.5%^[4]. It also includes use of the medication of family members, especially where the treatment of children or the elderly is involved^[5]. Inappropriate self-medication results in irrational use of drugs, wastage of resources, increased resistance of pathogens, entails serious health hazards such as adverse reactions and prolonged suffering^[6].

Irrational use of medicines is a major problem worldwide. WHO estimates that more than half of all medicines are prescribed, dispensed or sold inappropriately, and that half of all patients fail to take them correctly^[7]. Inappropriate use of antimicrobials drives the development of drug resistance. Both overuse, underuse and misuse of medicines contribute to the Problem. The threat from drug resistance is increasing. There is a need for urgent action; everyone can play a part. The complex problem of drug resistance requires collective action.

Objectives

1. To assess the self-medication patterns and drug use behavior in non teaching staff working in a tertiary care center.
2. To study the various socio-economic determinants resulting in self-medication in the above group.
3. To give health education about rational drug usage.

Methodology

Study area:

Pinnamaneni Siddhartha Institute of Medical Sciences and Research Foundation was the selected tertiary health care center. It is located in Gannavaram, Krishna district, Andhrapradesh.

Study design and population:

All the non-teaching staff will be included in the study. This group consists of administrative, technical, non-technical and class IV workers. Sample sizes of 195 members

were present in this study. Those who are ready to give written consent will be considered as study participants.

Data collection and analysis:

A structured interview questionnaire was designed as data collection instrument . Questionnaire was submitted for institutional ethical committee approval. Other necessary permission sought from the higher authorities. The objectives of the study, confidentiality of the research and other ethical considerations mentioned in the interview guidelines were explained for every interviewee. After explaining these, every respondent was asked for his or her willingness to participate in the study and filled by researcher. This process helped in the standardization and uniformity of the data collection. The variables that collected include sociodemographic data, economic condition, questions on self-medication such as which medicines are kept in the house, any specific place for keeping the medications, whether they are kept in a classified manner or not, how often self-medication is practiced, cautions taken during self-administration of the drugs, and use of other type of medications other than Allopathy.

Data entered into the Statistical package for social sciences (SPSS) software and analyzed using this software. Results represented in the form of percentages.

Results:

Table-1:Demographic profile of study participants

Age	Frequency	Percentage
<30 Years	67	34.4
≥30 Years	128	65.6
Sex		
Male	69	35.4
Female	126	64.6
Education		
Un Educated	108	55.4
Educated	87	44.6
Occupation		
Class I,II,III	88	45.1
Class IV	107	54.9
Experience		
<5 Years	98	50.3
≥5 Years	97	49.7

Out of the 195 participants, 107(54.9%) were class IV workers and remaining 88(45.1%) were grouped under class I,II,III for practical purpose as they were Administrators, Technical and Non-technical people.

Majority of the participants (65.6%) were aged ≥30 Years. Females (64.6%) were dominating males in number. Approximately 50% of participants got work experience of more than 5 years.

Most of the uneducated participants (55.4%) were of classIV group.

Table-2:Response of participants in case of illness-self medication pattern

Educatio n	Full Course	P-NT	NP- NT	NP- T
Un Educated	17.60%	25.00%	2.80%	54.6 0%
Educated	83.90%	4.60%	0%	11.5 0%
Occupation				
Class I,II,III	84.10%	4.50%	0%	11.4 0%
Class IV	16.80%	25.20%	2.80%	55.1 0%
Experience				
<5 Years	41.80%	19.40%	2.00%	36.7 0%
≥5 Years	52.60%	12.40%	1.00%	34.0 0%
Total	47.20%	15.90%	1.50%	35.4 0%

Majority of the study participants (45.6%) were purchasing drugs directly from the medical shop during their illness.

36.90% of participants were using old prescription to buy medicines while 12.80% participants were consulting qualified doctor (MBBS/MD) and remaining participants (4.6%) consulting non qualified doctors like RMPs.

Table-3: Drug usage pattern of participants

Educatio n	MBBS/ MD	Medical shop	Old Prescr iption	RM P
Un Educated	3.70%	40.70%	49.10 %	6.50 %
Educated	24.10%	51.70%	21.80 %	2.30 %
Occupation				
Class I,II,III	23.90%	52.30%	21.60 %	2.30 %
Class IV	3.70%	40.20%	49.50 %	6.50 %
Experience				
<5 Years	9.20%	45.90%	38.80 %	6.10 %
≥5 Years	16.50%	45.40%	35.10 %	3.10 %
Total	12.80 %	45.60%	36.90 %	4.60 %

47.20% of study participants purchased and taken full course of antibiotics.

15.90% of participants purchased but not taken (P-NT) full course of antibiotics.

1.5% of participants not purchased and not taken (NP-NT) full course of antibiotics.

35.40% of participants not purchased full course of antibiotics (NP-T) but purchased and taken partial course of antibiotics.

Table-4: knowledge of participants about Antibiotics and AMR

Education	No	Partial
Un Educated	99.10%	0.90%
Educated	17.20%	82.80%
Occupation		
Class I,II,III	17.00%	83.00%
Class IV	100.00%	0%
Experience		
<5 Years	70.40%	29.60%
≥5 Years	54.60%	45.40%
Total	62.60%	37.40%

62.60% of participants did not have any knowledge about Antibiotics and Anti Microbial Resistance (AMR). Only 37.40% of study group had partial knowledge about antibiotics.

Discussion

Unfortunately majority of participants (45.6%) in this tertiary care centre were not utilising local health services and at the same time purchasing drugs directly from medical shop irrespective of their educational, occupational status and work experience.

49% of uneducated, class IV employees purchasing drugs with old prescription. Only 24% of educated participants (class I,II,III) consulting qualified doctor.

Out of the 47.20% of participants who purchased full course of Antibiotics, majority were (84%) educated and belong to class I,II,III. More than 50% of uneducated

participants of class IV group purchased and took partial course of antibiotics (35.40%)

Almost all uneducated, classIV study participants lack knowledge about Antibiotics and AMR. Most of the educated participants of classI,II,III had knowledge only about antibiotics.

All participants didn't know the concept of AMR due to lack of Health Education sessions irrespective of their work experience.

Conclusion

Results are indicating a need for changing policy from top to bottom. Information regarding Anti Microbial Resistance should be given from time to time to Non-Teaching cadre. Healthy non teaching staff with more knowledge about public health problems can act as Role Models in the society.

Summary:

Our study is based on the self medication and drug use patterns among the non teaching staff of a tertiary health care centre. We have collected data and have derived appropriate statistical results. From these results we got know that most of the population are undergoing this self medication practice. Unfortunately most of them don't know about the adverse effects and other complications of this practice. It is necessary to give proper education and provide awareness about self medication and drug use pattern along with

their behavior to this spectrum of non teaching staff of a health care centre.

Implications:

Teaching hospitals have an ethical responsibility towards society to promote rational prescribing through the example of their teaching and non teaching staff. Non-teaching staff are socially and culturally acceptable in their societies and making them as stakeholders in the policy to combat anti microbial resistance is helpful. As this group is readily accessible to valuable health care services, there is a scope of positive impact on the society. The best approach appears to develop departmental prescribing policies for common conditions, within the national list of essential drugs, through a process of consultation and consensus building.

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