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PREVALENCE OF SELF MEDICATIONS IN COMMON PEOPLE AND IMPACT OF HEALTHCARE PROFESSION: A QUESTIONNAIRE BASED SURVEY

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ABSTRACT

Background: Self-medication is a practice, growing in an alarming rate, where person treat their own disease condition with medicines, available as over the counter drug (OTC) without prescription. This may lead frequently polypharmacy and several harmful consequences, affecting the quality of life. Present study was aimed to evaluate the prevalence and knowledge of self medication and polypharmacy among common people and effect of health profession in their perception.

Methods: This was a cross-sectional questionnaire-based survey in which an online survey was conducted among the common people during a period of total two months with a pre-designed questionnaire. A comparative evaluation was done among the people who were somewhat associated with healthcare profession with others.

Results: The study revealed that 52% of the healthcare associates and 47% of non- healthcare associates responded negatively towards self-medication practice. A good finding was evaluated from the present study that most of the common people check the contraindication and expiry date of medicine before intake. The perception of the common people revealed the proper use of medicine and as per physician's were advice. The people who by themselves or their family member involved in health profession are more aware about proper medicine use than the common people.

Conclusion: The present study revealed that there was an adequate knowledge of self medication among common people, which can be a positive direction for the society. More awareness and healthcare promotion will be beneficial for the common people for better therapeutic compliance and in turn reducing the healthcare burden in the society.

Keywords: Self-medication, healthcare, awareness, perception

INTRODUCTION

Self-medication is the most common practice in the society, where an individual selects and uses medicines or any other substances for the treatment of self-recognized ailments without consulting with any healthcare professional **[1]**. This is mainly taking of any medicine, herbal or dietary supplements without a prescription or physician's direction **[2]**. Self-medication has become an integral part in individual's lifestyle to encounter common health problems **[3, 4]**. Insufficient medical facilities, easy accessibility to over-the-counter (OTC) medicines in medicine stores make this issue as a very common practice in numerous countries all over the world. Self-medication is not only medicine without consultation but also consuming the leftover medicines or sharing the medicines, prescribed for any other relatives or friends for similar disease conditions. Many times for consuming medicine without consultation they failed to maintain the proper dosing, schedule and also unaware about the contraindications, which may lead to medication non-adherence and deterioration of disease conditions. These insufficient knowledge and awareness also results in adverse drug events which may even lead to severe morbidity and mortality **[5]**. Irrational use of medicines is a global challenge to both developed and developing nations.

Self-medication practice is increasing in an alarming rate mostly in the developing countries like India, reason behind this may be the increased health burden, economically instability, inadequate health care services etc. at the same time the easy accessibility of over the counter medicines in the local markets **[6, 7]**. Health professionals are familiar with the knowledge about medicines and their proper use. Therefore regarding the perception of medication and knowledge about the proper use they are different from the other population in terms of medicine use **[8]**. Knowledge and access to prescription medicines also are sometime the potential factors for self-prescribing among the health professionals, which also may be injurious. Though different studies have been conducted on self-medication practice, the extent of self-medication among health professionals and comparison with the common people is not assessed

yet. Therefore, this study was conducted to assess prevalence of self-medication among common people who themselves or their family members were health care professionals; in respect to the common people who are expected to be totally layman in this medicine knowledge.

MATERIALS & METHODS

The study design was qualitative with the insights about the major healthcare issues like self medication leading to polypharmacy. A pre-determined questionnaire form was developed to evaluate the knowledge and perception of the commoners' regarding this.

Study Type

This was an observational, cross-sectional, questionnaire-based study.

Collection of Data

The study was conducted from the common people through predesigned online Google form.

Study Period

The study duration was 3 months from February 2020 to April 2020.

Study Subject

Google form links were circulated through several online media to get responses from the common people during the study period.

Inclusion Criteria

Participants of minimum age of 18 years were considered for the study.

Exclusion Criteria

Unwilling or incomplete responses were not considered for the study.

Methods

This cross-sectional questionnaire based study was conducted from February 2020 to April 2020. Questionnaire was filled up by survey, done online questionnaire based survey was done through Google form to collect the data from the common people. The responses received were divided into two divisions- one who by himself or any of his family members are associated with healthcare profession and others who are the commoners who neither personally nor family members are associated with healthcare profession. Data were collected and analyzed.

Statistics

Data were calculated using percentage calculating in Excel spreadsheet.

RESULTS

In the present study total 200 responses were received from the common people through the online questionnaire based survey **(Table 1)**.

In the present study most of the respondents 111(55.8%) were from the age group of 21 to 40 years and majority 126 (63.3%) were male. Most of the responses 139 (69.5%) were from the students, followed by people associated with service i.e. 43 (21.5%).

The responses were evaluated and showed that exactly 50% of the study population

i.e. 100 respondents out of 200 total population stated either themselves or any family member of them is associated with healthcare profession. A comparative study has been done between the responses from these two categories of respondents. The survey data indicated 161 (80.5%) of the study population revealed that they prefer the Allopathic medicine mostly rather than Homeopathic or Ayurvedic medicine due to its better effectiveness and availability.

The respondents were asked if they indulge in self-medication and revealed more than half of health care profession associated persons i.e. 52% responded negatively, though 27% often opt for the self-medication. But in case of Non- healthcare professionals 47% responded negatively whereas some of them (34%) agreed that they sometimes prefer self medications **(Figure 1)**.

The survey evaluated if the respondents mention about the dietary supplements and self medications they used to their physicians during their health checkups. Here also the majority of both the groups of participants i.e. health care associated (64%) and Non-Healthcare associated (65%) agreed **(Figure 2)**.

Out of the 200 participants' majority of both the Healthcare (90%) and Non-Healthcare persons (85%) responded positively when asked if they take proper medications at proper time duration as prescribed by the physician. Same was the kind of feedback when both the groups were asked if they stop their prescribed medication without the approval of the pharmacist, they i.e. Healthcare (60%) and Non-Healthcare associated persons (63%) responded negatively. Similarly when they were asked if they change the medication dosage without consulting the physician majority of both the groups, Health care (80%) and Non-Healthcare Professionals (85%) had a negative response **(Table 2)**.

Most of the respondents associated with healthcare profession (39%) opined that they never forget to take their medicine, whereas a substantial number of Non-Healthcare Professionals (44%) responded positively **(Figure 3)**. Present study revealed 27 (17.6%) of the respondents used to take a single medicine per day and 18 (11.8%) were having 2-5 medicines per day. 132 (67%) respondent stated that if they forget to take medicine, they take the next dose as per schedule, 35 (17.8%) persons stated that they take the dose after consulting the doctor and 28 (14.2%) persons responded that they take the missed dose immediately.

Most of the participants from the groups of Healthcare associated (80%) opined that they check the contraindication and labeling information of drugs while taking. But a lesser positive responses (68%) were

received from the Non-Healthcare associated persons **(Figure 4)**.

Consequently regarding the idea of the storage conditions it was evident that 78% of the healthcare associated and 66% of the Non-Healthcare associated persons had a brief knowledge of that **(Figure 5)**. The present study confirmed that common people are also much more aware about the expiry date of medicine and almost all of the respondents agreed that they check the expiry date before buying or taking the drug precisely. Lastly when they were asked if they feel comfortable about asking questions to the doctor, most of the participants also provided a positive response towards it.

Table 1: Demographic Information

Parameters		Number of Participants (%)
Age	10 to 20	54 (27.1)
	21 to 40	111 (55.8)
	41 to 60	31 (15.6)
	above 60	4 (1.5)
Gender	Male	126 (63.3)
	Female	74 (36.7)
	Others	0
Qualification	Higher Secondary	114 (57.3)
	Graduate	46 (22.6)
	Post Graduate	36 (18.1)
	Doctorate	4 (2)
Profession	Student	139 (69.5)
	Service	43 (21.5)
	Businessman	7 (3.5)
	Homemaker	6 (3)
	Unemployed	5 (2.5)

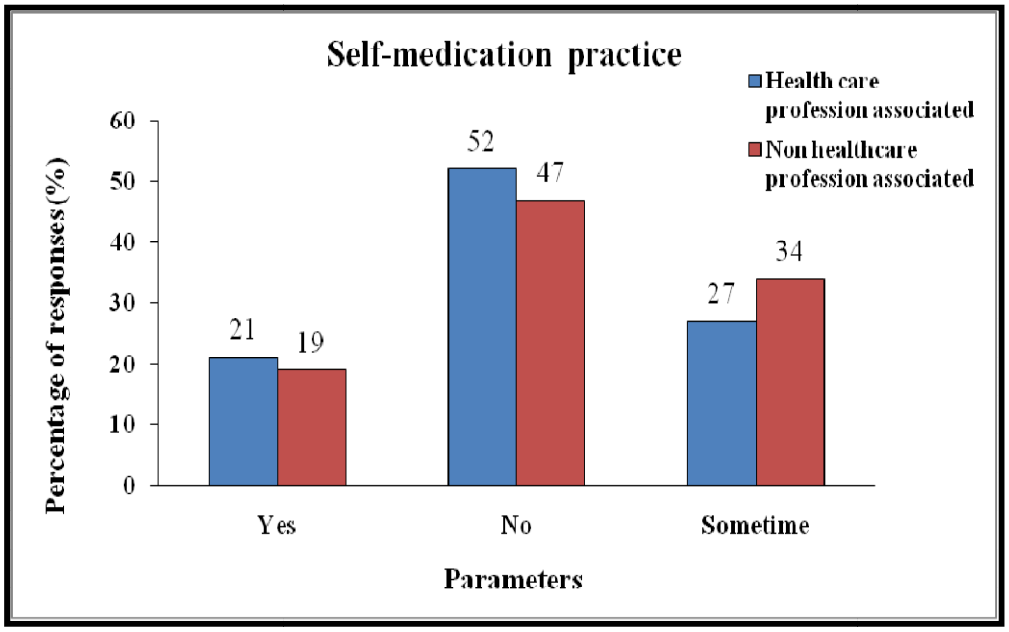

Figure 1: Represents the Practice of Self Medication among the common people (n=200)

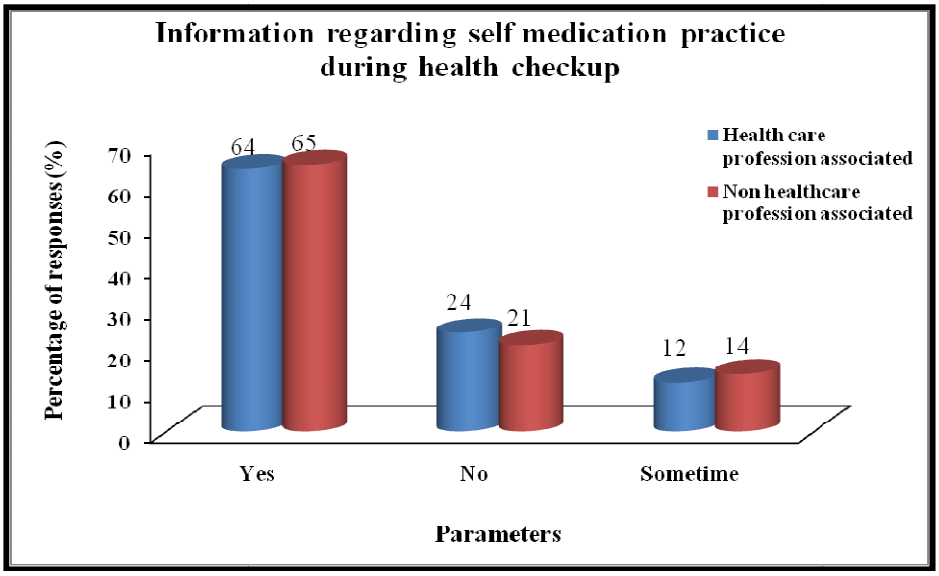

Figure 2: Represents the declaration of the detail information regarding Self Medication during Health Checkup (n=200)

Table 2: Perception of the common people regarding medicine use (n=200)

Perception parameter	Number of Participants (%)		
	Yes	No	Sometime
Do you take the proper doses for the proper time duration prescribed by the doctor?			
Health care profession associated	90	4	6
Non healthcare profession associated	85	1	14
Have you ever stop your prescribed medication without the approval of a Doctor			
Health care profession associated	28	60	12
Non healthcare profession associated	28	63	9
Do you change the dose or duration of medication treatment on your own without consulting the doctor?			
Health care profession associated	8	80	12
Non healthcare profession associated	6	85	9

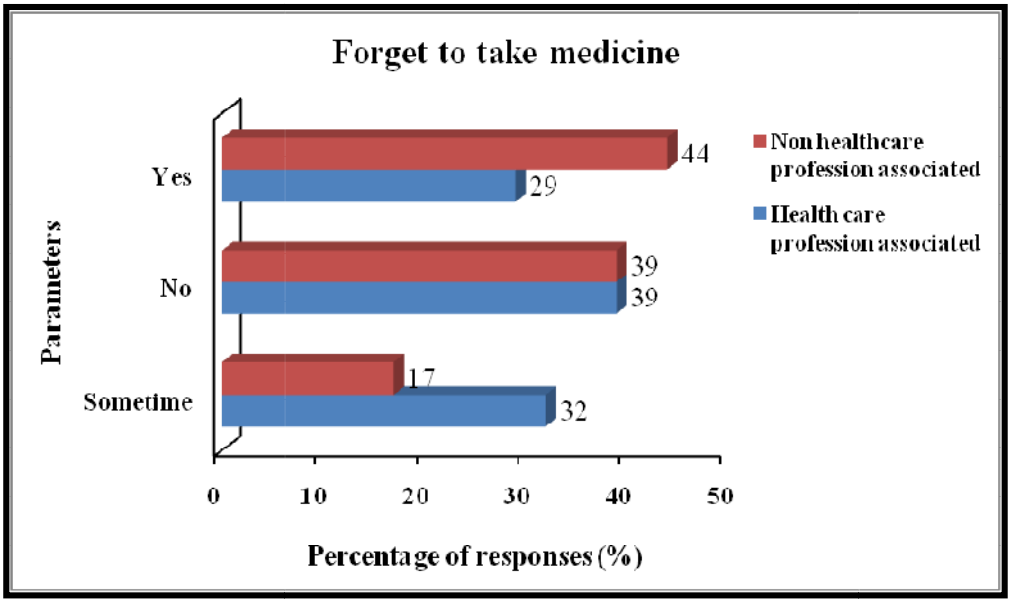

Figure 3: Represents the forgetfulness of the common people regarding medicine schedule (n=200)

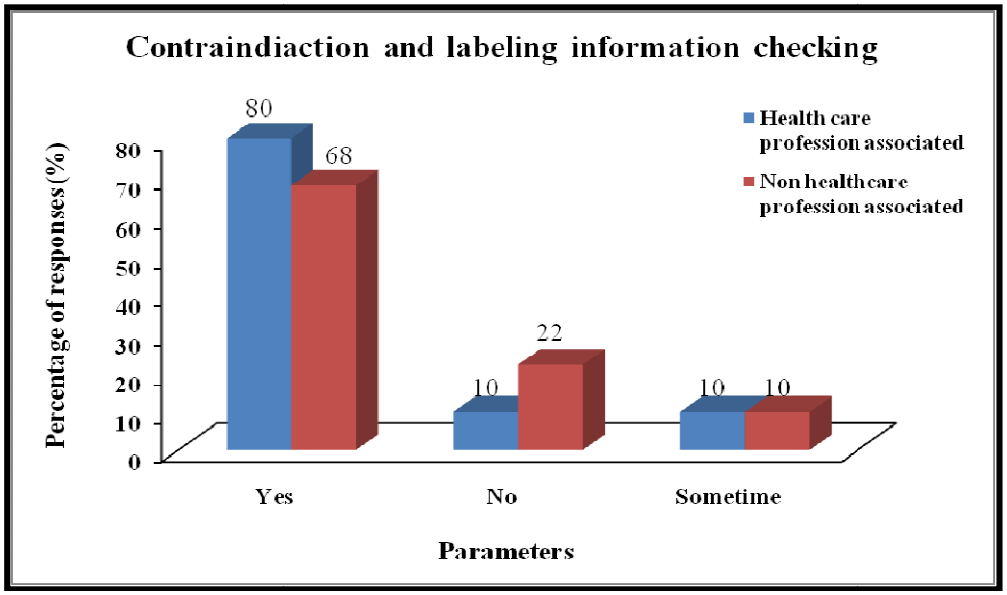

Figure 4: Represents the contraindication and labeling information checking among Professionals (n=200)

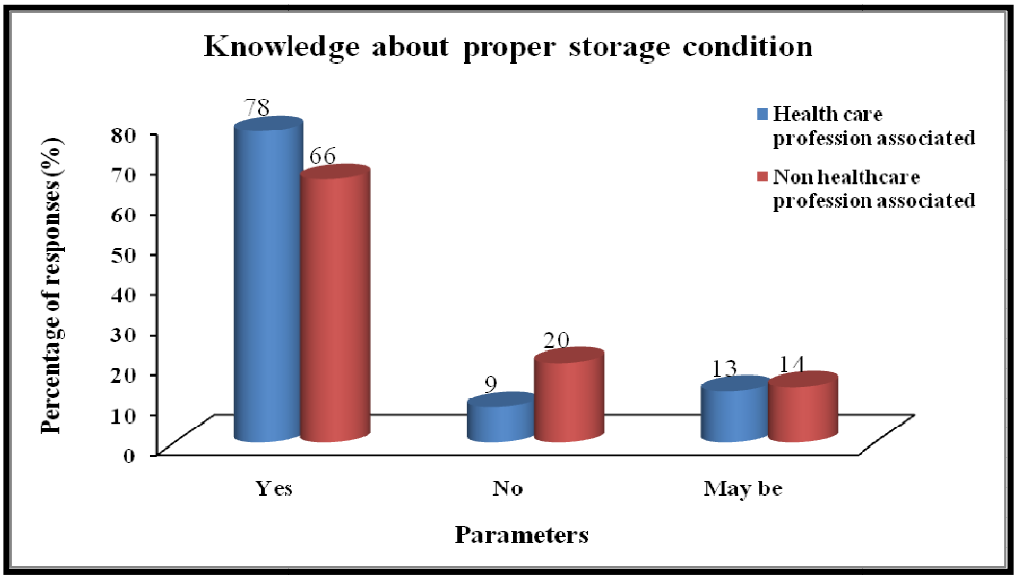

Figure 5: Represents the knowledge of the common people about proper storage of medicine

DISCUSSION

Personal health is one of the major concerns among the people and for this reason they have a tendency to use self-medication, a feature of healthcare, from ancient times. Although self-medication is related with several advantages and disadvantages, however it depends on the person and the purpose and process of its use **[4]**. Many countries have adopted the strategy of self-medication for the management of minor ailments with nonprescription drugs as well as self-care for chronic conditions. However, in reality, the autonomy provided to the consumer is often misused resulting in the self-use of medications that need to be taken with a prescription. Every medication needs to be administered in the right dose, at the right time, and for the right duration to elicit a

beneficial response **[9]**. Present study focused on the common people who themselves or any of their family members are health care professionals, because they have adequate knowledge of medicine in theory and are more cautious about the safety of drugs which is generally lacking in other non-medical groups or in the general population.

Present study revealed the respondents were mostly belonging to the age group of 21 to 40 years (55.8%) and majority 126 (63.3%) were male. This was similar to another study where increased self-medication practice was found among the young generation like 47.36% were in the age group of 16-25 years, followed by 26-35 years (32.45%) and most of the respondents were also male **[10, 11]**. Most of the studies indicating the practice of self-medication among the different healthcare professionals revealed the prevalence of self-medication among them. Study from Ethiopia, where 67.5% of health professionals were self-medicating with modern medicines **[12]**. Abay and Amelo reported minor illness was the major reason for self-medication among pharmacist and other health care personnel **[13]**. Ritu *et al.* also observed that 68% of the pharmacists take medicine by themselves due to minor illness **[14]**. But in contrary to these all, present study data indicated that 52% of the respondents, who by themselves or their family members involved with healthcare profession, stated that they were not indulged in self-medication practice, though 27% often opt for the self-medication and 21% agreed they were indulged in self-medication. A higher degree of self-medication practice (91.07%) had also been found among the staff nurses related to minor ailments **[15]**. In case of Non- healthcare professionals also 47% responded negatively in having self-medication practice, which was a good thing to be noticed. This is also similar with a study from Mumbai, where 40% of the study population was found to be not practicing self-medication practice and another study from urban Puducherry had also shown very less prevalence (11.9%) of self-medication to allopathic medication **[16,17]**. In contrary to this another studies from Northern India, Nepal reported the higher prevalence rate of self-medication between 62% to 71% **[18-20]**. In this study as a whole cold and cough (38.8%), fever (26%), headache (15.8%) were most common types of illnesses where the commoners prefer self-medication. This was supported by most of the studies on the self-medication use **[9, 21, 22]**.

Out of the 200 participants' majority of both the Healthcare (90%) and Non-Healthcare persons (85%) responded positively when asked if they take proper medications at proper time duration as

prescribed by the physician. A study from Amritsar reported majority of the patients, attending the out-patient departments (90.91%) were aware about the proper way of medicine use and also about the dosing schedule **[23]**. Same was the kind of feedback when both the groups were asked if they stop their prescribed medication without the approval of the prescriber, 60% of the healthcare associated and 63% of the non-healthcare associated persons denied. However 28% from the both group also agreed to do such practice. This was supported by the study where most of the patients (71.21%) were also concern about the duration of the therapy **[23]**. Similarly when it was asked if they change the medication dosage without consulting the physician, majority of both the groups both health care (80%) and non-healthcare professionals (85%) had a negative response. The patient's ability to understand the medication instructions and proper uses is a very important factor influencing medication adherence **[24]**.

Instead of these all in response to the forgetfulness in taking medicine which is a very common practice, 39% of the respondents irrespective of their association with any healthcare profession denied to that fact. However, 44% of the respondents who are not associated with healthcare profession strongly supported this and also 32% of the respondents having associated with healthcare stated they also seldom used to forget taking medicine. This study data was similar to another study, from which it can be indicated that in 49.6% of patients opined to the fact that forgetfulness was one of the major non-intentional reasons **[25]**. In contrary it was found to be higher in a study population from Spain where 79% revealed poor-adherent due to occasional forgetfulness to take medications **[26]**. Therefore it can be seen that the common people mostly used to develop medication non-adherence due to their irregular medication pattern many time due to their forgetfulness in taking medicine. Polypharmacy and increase in number of medicines will also increase this type of problems in such cases. This study documented participants' attitude towards proper medicine use. 132 (67%) respondent opined that after a missed dose, they take the next dose as per schedule and 35 (17.8%) persons also stated that they take the dose after consulting the doctor.

A study from Saudi-Arabia revealed that majority (85.2%) of the respondents failed to check the expiration date and over 70% were unaware of information leaflets **[27]**. Whereas, a good finding was evaluated from the present study that almost all of the study population the common peoples also check the expiry date of medicine before intake. Most of the participants from healthcare associated (80%) opined that

they check the contraindication and labeling information of drugs while taking, which is a bit lesser (68%) from the non-healthcare associated persons. A study revealed that even a very few among the patients visiting out-patient department (11.36%) were aware about the conditions in which they should not take the drug and only 21.97% had correct knowledge regarding the storage of the drug **[23]**. In contrary a study from Ethiopia revealed that most of the community people were aware about the contraindications regarding self-medications **[28]**. In the present study also the knowledge regarding the storage conditions of medicines among the common people is a bit lacking (68%), which need to be improved for maintaining the efficacy of medicine and better therapeutic compliances.

CONCLUSION

The present study revealed that there was a satisfactory knowledge of polypharmacy and self-medication among the common people, which was beneficial for the society. It also signified that things are changing in a positive direction in the future days. The people who by themselves or their family member involved in health profession are more aware about proper medicine use than the other common people. Therefore increasing awareness among common people and implementation of the role of clinical pharmacists in the present healthcare system may help to increase the knowledge and perception of common people. This can also help in selection of economic and rational drug therapy which would be helpful in improving patient safety and reducing economic burden of the therapy in patients.

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