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# EXTENT AND PATTERN OF SELF MEDICATION USE AMONG ADULT RESIDENTS OF A JURISDICTION IN NORTH INDIA

Harleen Arora *, Amarjeet Singh, R. K. Pathak and Sonu Goel

Officer/Epidemiologist (RNTCP), House No.1747, Phase-5, S.A.S Nagar, Mohali, Punjab, India.

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**Correspondence to Author:**
**Harleen Arora**

Assistant Program Officer/Epidemiologist (RNTCP) House No.1747, Phase-5, S.A.S Nagar, Mohali, Punjab - 160059, India.

**E-mail:** drharleenarora@gmail.com

**ABSTRACT: Introduction:** Self Medication (SM), a form of self care, is a topic of growing interest among researchers and a matter of concern for policy makers and implementors, owing to a plethora of associated malpractices in general population. There is paucity of information about this menace, especially in developing countries. The objective of the present study was to assess the prevalence, pattern and determinants of self medication among adult residents of a district in North India. **Methods:** This community based cross sectional mixed method study was carried out in of a district S.A.S, Nagar, Mohali, Punjab, India. Multistage stratified random sampling technique and Probability proportional to size (PPS) was used in the 400 households from urban, rural and slum areas. A pretested questionnaire was administered to one representative member of each of the 400 households. Besides 150 people visiting medical stores were interviewed for self medication practices. **Results:** SM was widely practiced (97%) in study population, more in urban as compared to rural and slum counterparts. People of all socio demographic categories practiced self-medication but were most frequently observed in age group of 31-40 years, females and urban residents. Monetary constraint was cited as the main reason for SM. Allopathy was the preferred medicinal system and the local pharmacist being the main information source for SM. Easy availability, multiple drug options and lack of prescription requirement emerged as the major factor responsible for irrational drug use under SM. **Conclusion:** SM was widely practiced in study population. Thus, there is an urgent need to curb this practice by legislation and educational means.

**INTRODUCTION:** According to WHO, self medication is "selection and use of medicines by individuals to treat self recognized illnesses or symptoms". Self-medication includes the use of non prescription drugs and a range of different alternative medicines such as herbal remedies, food supplements, and traditional products by people through using their own initiative. It has also been defined as obtaining and consuming medication without professional supervision, which comprises of acquiring medicines without a prescription, purchasing drugs by resubmitting/ reutilizing an old prescription, taking medicines on advice of relative or others, or consuming leftover medicines already available at home.

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In most illness episodes, self-medication is the first option which makes it a common practice worldwide [1]. There is an increasing trend towards self-medication not only in countries with advanced economies but also in developing countries [2]. A study on "Self-Medication Patterns and Drug Use Behaviors in a City in Northern India" shows that

97% of the house wives were in the habit of keeping the medicines and 73% of them were in the habit of taking medicines without any prescription .Most used the allopathic system of medicine as compared to other systems.

Most commonly used medicines were analgesics (81%) followed by antibiotics & antacids [3]. Another community based cross-sectional study was conducted on a sample of 352 household, out of which 27.6% ill people were self-medicated. Most frequent illness reported for self-medication was headache (60%) and most of the drugs were obtained from drug retail outlets. Another study entitled "Determination of Self-Medication Practices in an Urban Slum Community" was done to assess the prevalence and practice of self-medication and its major determinants.

It showed that the prevalence of self-medication in the community was 55.9% with significantly higher prevalence among females, younger age group and low economic and educational status population. Monetary constraint was the main reason cited by the users, allopath was the preferred system of medicine and the local pharmacist being the main information source [4].

A cross- sectional study entitled "Self-medication among university students of Karachi" reveals that frequency of self-medication was 80.4%. Most common reason found for not consulting the doctor were "problem not serious" (46%) and "previous bad experience" (30.9%). The common symptoms when self-medication sought were headache (62.3%), and fever (49.8%) cough/ cold (48.3%) & pain (44.4%). Brand was selected on the basis of previous experience (48.8%) while in 21.3% cases it was suggested by pharmacist & chemist. Only 62% of participants knew that SM can be harmful [5].

To prevent the harmful effects of self medication and control the menace of selling of non prescribed drugs, drug and cosmetics act was introduced in 1940. It was meant for regulation of sale, manufacture, import and distribution of drugs, however, in our country, drugs are being sold by pharmacist without the prescription by registered medical practitioners due to poor implementation of laws.

In several studies it has been found that inappropriate self-medication results in wastage of resources and increased resistance of pathogens. Such behavior entails serious health hazards such asadverse drug reactions, prolonged s uffering and drug dependence etc.

Despite the growing research interest in self-medication behavior, little information is available regarding its prevalence, determinants and side effects especially in the developing countries. Moreover stakeholder's perspectives have not been incorporated in the previous research studies limiting their applicability. Studies regarding factors influencing pattern of self medication should interest public health practitioners because of its possible deleterious health effects at the community level.

The present research was carried out with the purpose to ascertain the determinants and pattern of self medication in adults aged 18 years and above in a district of North India.

**Methodology: Study Design:** A community based cross-sectional study incorporating mixed method design was undertaken from January 2013 to May 2013 among adults aged 18 years and above. Operational Definition for Self Medication used in the study was those obtaining and consuming medication without professional prescription or supervision, purchasing drugs by resubmitting/ reutilizing an old prescription, taking medicines on advice of relative or others, or consuming leftover medicines already available at home. (Zafar SN, 2008).

**Study setting:** The study was conducted in a district Mohali of Punjab region in North India. The district consists of 28 urban sectors, 7 slums and 9 rural areas contributing to 60%, 30% and 10% of the total population respectively.

**Sample Size:** The total sample size for the study was 550 comprising of general population (400) and medical store visitors (150). As there is no previous data available on self-medication practice in the study population a sample size was determined based on expert consultation and research feasibility.

**Sampling Technique:** The multistage stratified random sampling technique was used to draw the sample of 400 from general population and 150 from the adults visiting medical stores. First, through simple random sampling technique, four out of 28 urban sectors; one out of 9 rural areas and three out of 7 slums were selected for study. Second, using the probability proportional to size 60% of the total sample (n=400) was taken from urban (n=240), 30% from slums (n=120) and 10% from rural areas. (n=40).

Further one member from selected households was interviewed. Further, to understand the behavioral pattern for seeking medication, a total 10 medical stores were conveniently selected in the district.

Fifteen visitors to each of the 10 medical stores were selected on different timings on consecutive day for one week and interviewed after obtaining their informed written consent. Minors with age below 18 years and the ones with medical and paramedical background were excluded from the study for unbiased assessment. The sampling technique is shown in **Fig. 1**.

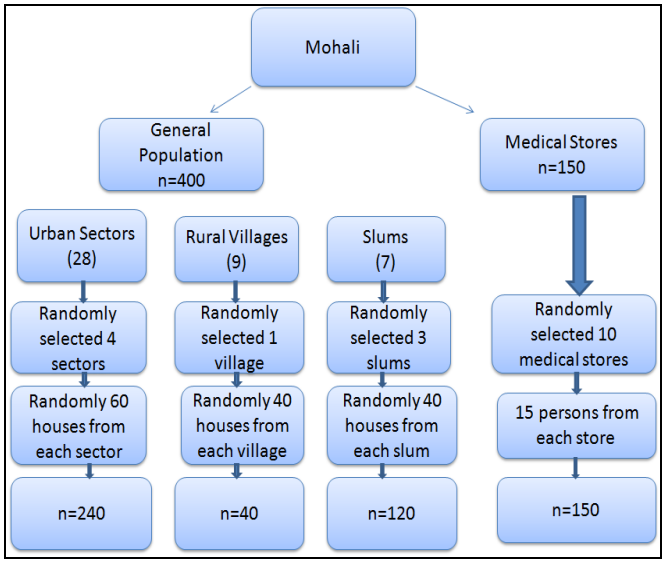


**FIG. 1: THE SAMPLING TECHNIQUE**

**Data Collection & Tools:** Two self structured questionnaires one for household member and another for patient visiting medical stores were designed and pretested in a population different from the study. The questionnaires were divided into two main sections: Socio demographic characteristics and self medication determinants. The socio demographic determinants were age, gender, marital status, family status, educational level, occupation, family income, religion, health condition of consumer while the self medication determinants were type of disease, duration of illness, reasons for self-medication and the drug used.

Data collection was done in the month of February and March 2013. One household was visited thrice for data collection by the field investigator and if the house is found locked than the investigator was instructed to go to the next household. Similarly the respondent visiting medical store if denies to participate in the study was excluded and the next consecutive person visiting the medical store was selected.

**Data Analysis:** The data collected were coded and entered into Microsoft Excel 2007, and later analyzed using SPSS 16.0. Descriptive statistics, including mean, standard deviation, and range, for quantitative data and proportions for qualitative data were used to characterize the study population. For quantitative data, $\chi^2$ or Fischer's exact test were used to observe differences between proportions for independent groups. The difference between the 2 groups was considered significant at p value below 0.05.

**Ethical Aspects:** The study participants were informed regarding the purpose of the study and informed consent was obtained. Collected data was kept confidential and privacy of study participants maintained at all the stages of study.

**RESULTS:** A total of 400 respondents from households and 150 from medical stores participated in the study. Maximum respondents were found in age group 31-40 years followed by age group 21-30 years. Most respondents (72.1%) from urban population were graduate whereas those from rural (62.5%) and slums (57.5%) were primarily educated. About 69.6% and 52.5% of urban and rural respondents were females where 63.3% in slums were males. The socio demographic profile of respondents is described in **Table 1**.

**TABLE 1: SOCIO DEMOGRAPHIC PROFILE OF RESPONDENTS**

| Variables Age(in years) | Total (n-400) | Urban (n-240) | Rural (n-40) | Slums (n-120) |
|---|---|---|---|---|
| 21-30 | 88(22.0) | 16(6.7) | 14(35.0) | 58(48.3) |
| 31-40 | 102(25.5) | 40(16.7) | 17(42.5) | 45(37.5) |
| 41-50 | 84(21.0) | 71(29.6) | 3(7.5) | 10(8.3) |
| 51-60 | 66(16.5) | 58(24.2) | 3(7.5) | 5(4.2) |
| >60 | 60(15.0) | 55(22.9) | 3(7.5) | 2(1.7) |
| Gender | | | | |
| Male | 168(42.0) | 73(30.4) | 19(47.5) | 76(63.3) |
| Female | 232(58.0) | 167(69.6) | 21(52.5) | 44(36.7) |
| Education | | | | |
| Illiterate | 9(2.3) | 4(1.7) | 3(7.5) | 2(1.7) |
| Primary | 94(23.5) | 0(0.0) | 25(62.5) | 69(57.5) |
| Middle | 37(9.3) | 7(2.9) | 6(15.0) | 24(20.0) |
| High | 49(12.3) | 24(10.0) | 4(10.0) | 21(17.5) |
| Post high | 37(9.3) | 32(13.3) | 2(5.0) | 3(2.5) |
| Graduate & PG | 174(43.5) | 173(72.1) | 0(0.0) | 1(0.8) |

**Fig. 2** depicts the percentage distribution of various diseases suffered by respondents. Among the total respondents, 66% suffered from diseases and commoner ailments were generalized body fatigue, low back and joints pain. Among chronic patients hypertension and diabetes were frequent.

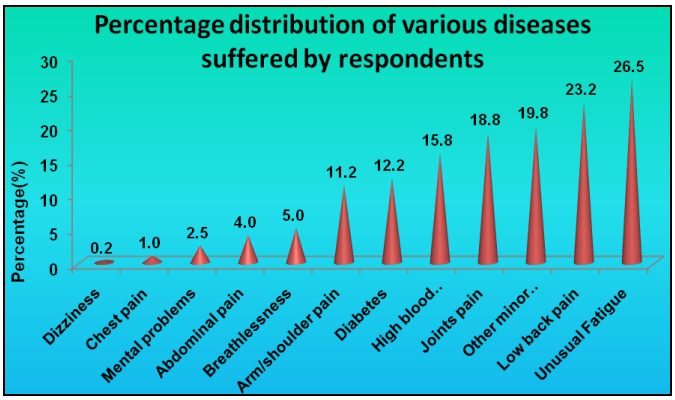


**FIG. 2: PERCENTAGE DISTRIBUTION OF VARIOUS DISEASES SUFFERED BY RESPONDENTS**

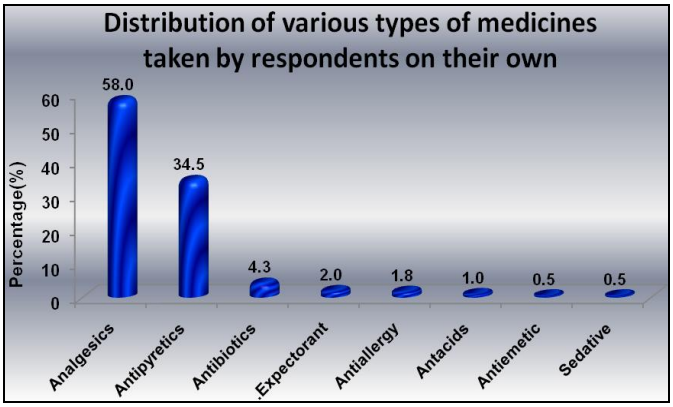


**FIG. 3: DISTRIBUTION OF MEDICINES USED BY RESPONDENTS FOR SELF MEDICATION**

**Fig.3**. Depicts that most commonly used medicines for self medication were analgesics (58%) and antipyretics (34.5%) and least commonly used were sedatives and antiemetics (0.5% each).

**Table 2** explains the reason for practicing self medication. It showed that majority of the respondents in all the groups *viz.* urban, rural and slums indulged in self medication for mild illness and due to past experience of treatment.

**TABLE: 2 REASONS FOR PRACTICING SELF-MEDICATION AMONG STUDY POPULATION**

| Reason | Total (n-400) | Urban (n-240) | Rural (n-40) | Slums (n-120) |
|---|---|---|---|---|
| Mild illness | 324(81.0) | 192(80.0) | 28(70.0) | 104(86.7) |
| Previous experience | 308(77.0) | 191(79.6) | 27(67.5) | 90(75.0) |
| Need for consulting doctor not felt | 282(70.5) | 151(62.9) | 27(67.5) | 104(86.7) |
| Doctor inaccessible | 122(30.5) | 41(17.1) | 13(32.5) | 68(56.7) |
| Disease prevention | 93(23.2) | 85(35.4) | 3(7.5) | 5(4.2) |
| Perception that drug is safe | 56(14.0) | 53(22.1) | 2(5.0) | 1(0.8) |
| Inappropriate time | 45(11.2) | 20(8.3) | 4(10.0) | 21(17.5) |
| TV advertisement | 31(7.8) | 31(12.9) | 0(0.0) | 0(0.0) |
| Chronic disease | 29(7.2) | 28(11.7) | 1(2.5) | 0(0.0) |
| Informed through Internet | 5(1.2) | 5(2.1) | 0(0.0) | 0(0.0) |
| Informed by someone | 9(2.2) | 8(3.3) | 1(2.5) | 0(0.0) |
| Other reason | 5(1.2) | 4(1.7) | 1(2.5) | 0(0.0) |

**Table 3** depicts the differences in reasons cited among populations for not visiting doctors for treatment. In slums the most common reasons were financial, illiteracy and ignorance while primary reasons among the urban areas were perceptions about non seriousness of disease & lack of time. Among rural people, the major significant reason cited was ignorance and illiteracy.

**Table 4** shows that the most common method used by respondents to purchase medicines was narrating symptoms to chemist. The practice is more common in rural and slum areas as compared to urban area. Allopathic medicines were the most commonly type of medicines (87% in urban, 82.5% in rural and slums) used by respondents on their

own followed by Home remedies (16.7% in urban, 12.5% in rural and 5.8% slums. Majority of respondents (95% in urban, 100% in rural and slums) were unaware of OTC (Over the counter) medicines.

**TABLE 3: REASONS CITED BY RESPONDENTS FOR NOT VISITING DOCTORS FOR TREATMENT**

| Reason | Total (n-400) | Urban (n-240) | Rural (n-40) | Slums (n-120) | $\chi^2$, df, p-value |
|---|---|---|---|---|---|
| Financial | 181(45.2) | 47(19.6) | 22(55.0) | 112(93.3) | 17.732, 2, 0.000* |
| Illiteracy | 103(25.8) | 3(1.2) | 21(52.5) | 79(65.8) | 19.122, 2, 0.000*** |
| Ignorance | 129(32.2) | 18(7.5) | 24(60.0) | 87(72.5) | 17.042, 2, 0.000*** |
| Non serious disease | 261(65.2) | 216(90.0) | 12(30.0) | 33(27.5) | 16.222, 2, 0.000*** |
| Dependent on others | 44(11.0) | 35(14.6) | 4(10.0) | 5(4.2) | 8.192, 2, 0.012* |
| Time saving | 77(19.2) | 61(25.4) | 2(5.0) | 14(11.7) | 15.536, 2, 0.000*** |

* P value less than 0.05 (significant).Chi squared test with post hoc analysis

**TABLE 4: METHODS USED BY RESPONDENTS TO PURCHASE MEDICINES FROM MEDICAL STORES**

| Method | Total (n-400) | Urban (n-240) | Rural (n-40) | Slums (n-120) | $\chi^2$, df, p-value |
|---|---|---|---|---|---|
| Show of Prescription slip | 84(21.0) | 54(22.5) | 6(15.0) | 24(20.0) | 1.266, 2, 0.531 |
| Calling name of medicine | 83(20.8) | 77(32.1) | 1(2.5) | 5(4.2) | 46.916, 2, 0.000*** |
| Using old medicine strip | 24(6.0) | 7(2.9) | 0(0.0) | 17(14.2) | 20.789, 2, 0.000*** |
| Narrating symptoms to store chemist | 334(83.5) | 180(75.0) | 37(92.5) | 117(97.5) | 32.009, 2, 0.000*** |
| Previous experience of treating same illness | 66(16.5) | 39(16.2) | 10(25.0) | 17(14.2) | 2.583, 2, 0.275 |

As shown in **Table 5**, more than half urban respondents felt that they can take general medicines at their own for minor illness. Upon categorization of respondents into actual drug users and messengers, 96 respondents (64%) were actual drug users and 54 respondents (36%) were messengers who bought medicines for others. On seeking the self medication practice among patients visiting medical stores, it was found that most frequent complaints expressed by respondents for seeking self medication were fever (30%), cough (24.7%), pain and diabetes (22%), hypertension (11.3%), common cold (9.3%), headache (7.3%) etc

**TABLE 5: VIEWS OF RESPONDENTS ON SELF-MEDICATION PRACTICE**

| Views of respondents | Total (n-400) | Urban (n-240) | Rural (n-40) | Slums (n-120) | $\chi^2$, df, p-value |
|---|---|---|---|---|---|
| Do you feel that people can take medicines on their own? | 178 (44.5) | 128 (53.3) | 6 (15.0) | 44 (36.7) | 24.658, 0.000*** |
| Are you aware of medicines which people can take on their own | 88 (22.0) | 86 (35.8) | 1 (2.5) | 1 (0.8) | 66.958, 0.000*** |
| Are there any diseases for which people can take medicines? | 61 (15.2) | 59 (24.6) | 1 (2.5) | 1 (0.8) | 40.505, 0.000*** |
| Are you aware of consequences of medication taken on your own? | 32 (8.0) | 32 (13.3) | 0 (0.0) | 0 (0.0) | 23.188, 0.000*** |

As shown in **Table 6**, 66% of respondents who came to take medicines from the medical store were without prescription and only 34% of respondents came with prescription slip.

**Table 7** shows that most of the respondents (66.6%) were not in the habit of going to doctor for minor diseases, out of them majority (64.7%) were self medicating. Majority (98%) take allopathic medicines on their own, primarily (58%) analgesics, (34.5%) antipyretics and (4.3%) antibiotics. Very few of respondents (38.7%) were aware that wrongly administered self medication may cause health problems

**TABLE 6: AVAILABILITY OF PRESCRIPTION AMONG RESPONDENTS**

| Practices related to prescription | Frequency | Percentage |
|---|---|---|
| Have prescription slip | | |
| No | 99 | 66.0 |
| Yes | 51 | 34.0 |
| Prescription slip proper | 50 | 98.0 |
| Not signed by doctor | 1 | 2.0 |

**TABLE 7: CONSULTATION OF RESPONDENTS REGARDING MINOR DISEASES (n-51)**

| Practices | Frequency | Percentage |
|---|---|---|
| Go to doctor | | |
| Yes | 17 | 33.3 |
| No | 34 | 66.6 |
| If No, Specify | | |
| Don't take medicine | 12 | 35.2 |
| Take medicine on their own | 22 | 64.7 |

**DISCUSSION:** The prevalence of SM reported in present study was quite high (89%) in medical stores and 97% in general population. The findings were similar to studies conducted in Haryana, India (73%) and in Hong Kong (97%) [5]. The possible reason for high prevalence of SM in the present study was availability of drugs to respondents from chemist shops without prescription probably due to the issue of laxity of laws and perception among general community that their disease was not serious. In rural and slum areas pattern of SM was similarly high. Similar results are found in other studies around the world [9-12].This reveals that respondents in slums and rural areas are not ready to go to doctors for minor problem [13, 14]. Under the law "drug and cosmetics act, 1940" there is a strict regulation on sale, manufacture, import and distribution of drugs but in our country due to poor implementation of laws, drugs are being sold by pharmacist without the prescription by a registered medical practitioner as( 66% in the present study). Under the law, schedule "H" drugs are a class of prescription drugs in India. These are the drugs which cannot be purchased over the counter without the prescription of a qualified doctor. However, enforcement of Schedule H laws in India is a lax. [6] In contrast rules and regulations are very strict in developed countries such as USA and UK but in low developing countries there is a lax in implementation of laws [15].

Age wise distribution of respondents practicing SM shows that more number of respondents practicing SM belonged to age group 46-60 years in medical stores and 41-60 years in urban areas. In rural areas age group practicing SM was 31-40 years whereas in slums the pronounced age group was 21-30 years. Another study from southern India supports our findings [16]. Gender wise distribution of respondents among general population shows that there is a significant difference in males and females practicing SM. In urban and rural areas there were more number of females who practice SM *i.e.* 69.5% and 54% while there was male predominance (63%) in slums. This is in accordance with a study done in an urban slum community [7]. The probable reason for more number of females practicing SM might be that females suffers from more number of health problems due to their lifestyle and take medicine easily as they can't bear pain of illness much as compared to that of males. Moreover in Indian society women do not have freedom to go out of home, so are forced for SM as also reported in studies [8].

About 57% of respondents in slums replied they had no access of doctor and 87% in slums felt that there is no need to visit a doctor and they take medicine on their own as compared to 63% and 68% in urban and rural population. The major reasons in the study were financial constraint (55% and 93.3%), illiteracy (53% and 66%), ignorance (60% and 73%). Lack of literacy and ignorance are the dominating factors among this population. The finding is supported by study done in town Sahaswan at Northern India [17]. Another common reason of self-medication reported among respondents was their habit of taking the same medicine which they took for similar episode earlier.

Most of respondents (87% among urban population and 82.5% among rural and slums) indulging in SM were in habit of taking only allopathic medicines. Analgesics were the type of drug most commonly taken by the respondents (58%) followed by Antipyretics (35%) and Antibiotics (5%). A study done on SM pattern in Haryana also reported that most commonly used drugs for self-medication were analgesics and antipyretics [1]. The most common reason cited by 88% respondents among three groups for taking painkillers was quick relief. The finding is supported by studies done in Malwa region of Punjab and Sarjapur area of East Bangalore [7, 18].

Our results indicate that there is an alarming deficiency in the patient's knowledge of the possible side effects of self- medication. Merely 23% feel that intake of wrong medicines is possible and 25% were aware of expiry date, side effects and allergic reactions of medicines. There was a

significant difference in the knowledge of urban respondents as compared to almost negligible knowledge in rural and slum population. The findings of the present study are supported by a study done in Malaysian urban population [19]. Half of respondents in present study felt that they could take medicines on their own for diseases like headache, pain, fever and acidity. Very few of them (8%) were aware of consequences of self medication. Similar view is supported by a review regarding concept of self medication by Jain *et al.*, [20].

**Common Verbatim Reiterated by Community Members in the study:**

**1.***"Hum har bar doctor ke pas nyi ja sakte dawa lene kyuki bhut samay lagta hai aur puri dihari kharab ho jati hai chahe wo sarkari doctor ho"* (we people cannot go to a doctor everytime for taking medicine as it takes a lot of time no matter the doctor is a government employee).

**2.** *"Thodi bhut problem ke liye hum khud hi dawa kha lete hai aur theek bhi ho jate hai to doctor ke pas jane ki zarurat nyi lagti*"(For minor problems we take medicines on our own so we feel that there is no need to visit a doctor).

**3.** *"Har bari doctor ke pas jao choti choti problems ke liye to itni fees le lete hai dawai unhone wahi deni hai jo chemist bhi jante hai"* (Doctors take a lot of consultation fees every time when we go to them for minor diseases. In any case they give the same medicine which even a chemist would give without charging any fees).

**4.** *"Jab hum jante hai ki yeh problem dubara dubara ati hai to har bar doctor ke pas jane ka kya fyada. Hum wahi medicine lekar theek ho jate hai jo pichli parchi par likhi hoti hai" (*If we know that same problem will be there time and again than, what is the need of going to a doctor everytime. We take the same medicine as written on the older prescription).

**5.** *"Jab adhi dose lene se theek ho jate hai fir itne din dawai khane ki kya zarurat hai aur doctors ka kya hai wo to dubara kuch din bad bulane ke liye fees ke chakar mein zada din ki dawa likh dete hai aur zada dawa khane se garmi bhi ho jati hai"*(If we know that we will be fine after taking half dose of medicine than why to take medicine for more number of days and doctors call for follow up only because of fees and write medicine for more number of daysand eating more medicine causes acidity).

**6.** "*Hum zada to nhi jante par sar dard ya sareer mein koi bhi takleef ho thakwat ki wajeh se to hum hare pate wali dawa store se lekar kha lete hai dard theek ho jata hai,ek rupaye ki ek goli mil jati hai karyana store se whi khate hai aur aram na aye fir to doctor ke pas jana hi padta hai"*(We do not know much, but for any type of pain such as headache, bodyache due to fatigue etc we take a medicine in green strip from Glossary store in one rupee only and our pain gets relieved. However we go to doctor only if our pain does not get relieved with this medicine).

**7.** *"Yeh routine problems ke liye to khud hi dawa le leni chaiye doctor ke pas jane ki koi zarurat ni hai unhone bhi to yeh hi dawai deni hoti hai"*(We should take medicines on our own for minor routine problems there is no need to visit a doctor as they also give the same medicines).

**8.** *"Jab hum jante hai ki yeh problem dubara dubara ati hai to har bar doctor ke pas jane ka kya fyada. Hum wahi medicine lekar theek ho jate hai jo pichli parchi par likhi hoti hai"(*If we know that same problem will be there time and again than, what is the need of going to a doctor everytime.We take the same medicine as written on the older prescription.)

**9.** *"Zadatar hum khud hi theek ho jate hai dawai khake, to doctor ke pas jane ki zarurat nyi hoti. Agar zada problem ho to hi doctor ke pas jana chaiye"*(Most of the times we are relieved by taking medicines on our own so there is no need of going to a doctor but if the problem is more severe than only we go to a doctor).

**10.** *"Har bari doctor ke pas jane se samay barbad hota hai, yhi chemist se same dawa mil jati hai kyuki yeh bhi to aadhe doctor hai"*(Every time going to a doctor is a waste of time as we get same medicine by asking from chemist because they are half doctors only).

**CONCLUSION:** Self-medication is widely practiced (97%) in Mohali district of Punjab, India. People of all socio demographic categories practice

self-medication. Maximum respondents practicing SM were females among urban areas. Only 11% of respondents were aware of OTC (Over the Counter) drugs. Significantly higher difference was found regarding the awareness level about SM *i.e.* urban>rural>slums. Easy availability of wide range of drugs without a prescription emerged as the major factor responsible for irrational use of drugs in SM.

**RECOMMENDATIONS:** This study highlights the urgent need of public education about specific risks and side effects of SM and its importance. Local government authorities should involve mass media for creating awareness among general public. Attention should be provided to all drug consumers, particularly to vulnerable drug consumers such as pregnant and breast-feeding women, children, elderly and chronically ill patients. Pharmacists should be made aware about the medico legal aspects, Consumer Protection Act and human rights issues regarding SM. Enforcement of law pertaining to dispensing of medicines should be properly implemented.

**LIMITATIONS:** The major constraint in the study was that respondents were reluctant in sharing their previous health seeking behavior and SM practices due to social desirability bias. More reluctance to give interview was experienced in rural and slum areas.

**CONFLICT OF INTEREST:** No conflict of interest exists.

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