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Original Research Article

# Study of knowledge, attitude and practice of self medication among health care workers at MC Gann Teaching District hospital of Shivamogga, India

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## ABSTRACT

**Background:** Healthcare workers gain adequate knowledge related to medications used in treating illness from their work experiences which influences self medication practices.
**Methods:** The present study was conducted in N=150 healthcare workers, divided into 2 groups with group I (nursing staff) and group II (paramedical staff) with 75 participants in each group. Data related to self medication was obtained from a pretested validated semi structured questionnaire either in Kannada or English. The responses were compared between each group with chi square test. P value ≤0.05 was considered significant. All statistical analysis was conducted with SPSS 16.
**Results:** The mean age (mean±SD) of the participants in group I and group II is 31.79±8.309 and 34.15 (±8.168) respectively with p =0.081. The prevalence of self medication was 100% in both the groups. Both the groups knowledge related to the definition of self medication was similar (group I 63 (84.0%) and group II 62 (82.7%) p = 0.900). Group I believes that self medication is entirely safe compared to group II which was statistically significant (group I 66 (88.7%) and group II 46 (61.3%) p=0.029). Most common drugs used for self medication was NSAIDS (non steroidal anti-inflammatory drugs) in both the groups being 75 (100%). Antibiotics was used by 26 (2.66%) in group I and 14 (18.66%) in group II.
**Conclusions:** Self medication practice is highly prevalent in the healthcare workers, who also influence the other populations to practice self medication. Practicing responsible self medication is more appreciable.

**Keywords:** Healthcare workers, Health, Self medication, OTC

## INTRODUCTION

Health is an important factor need for better survival.[1] WHO defines "self care" as "the ability of individuals, families and communities to promote health, prevent disease, maintain health, and to cope with illness and disability with or without the support of a health-care provider".[2] Self care involves activities and practices that are engaged on a regular or time basis to maintain health, relax mind, reduce stress, engage practices to prevent diseases and treatment of minor ailments with home remedies or medication[2]. There is an increase practice of self care due to several factors like; socioeconomic factors; lifestyle; easy access to drugs; the increased potential to manage certain illnesses through self-care; public health and environmental factors; greater availability of medicinal products; and demographic and epidemiological factors.[3]

Self medication is defined as obtaining and consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment. It includes procuring medicines without a prescription, self decision to reuse old prescriptions to purchase the same

medicines prescribed for illness without consulting the doctor, using medicines as advised by relatives or friends and using medication due to influence of media.[4] Self medication is an important component of self care and most of the drugs used for self medication are the OTC (over the counter) drugs.[4] OTC drugs are medications which can be procured without the need for a physicians prescription. Not all drugs used in self medication are OTC drugs.[5,6] WHO advices to follow a responsible self medication which requires knowledge regarding the health status and about medication or treatment with which it would be advantageous in maintaining health. Products used in responsible self medication must provide information regarding: administration of medicines;effects and possible side-effects; monitoring of effects and side effects;possible interactions; precautions and warnings; duration of use; and when to seek professional advice.[7,8]

Healthcare workers play an important role in health management. They are the people who engage in actions with the primary intent to enhance health. They function in supporting several departments of the health departments such as surgery, medicine, dentistry, radiology, ophthalmology, research etc. Nursing and other paramedical staff (OT (operation theatre) technician, optician, lab assistant, statistician etc) are important healthcare workers in the hospital who have adequate knowledge about the medications.[9] Pharmacology is a part of the syllabus to the nursing, pharmacist and other paramedical staff such as OT technician, optician etc who are trained adequately to use medications under the physicians supervision to the patients. Whereas the other paramedical staff without the knowledge of pharmacology due to the nature of their work practice self medications by observing the drugs prescribed by physicians, availability of wide number of generic medications available in the hospitals, ease of procuring the medications from the working hospitals and are also aware of the indications and dose of the medications to be used.[10] Thus knowledge of health and medications plays a vital role in self medication.[10]

Self medication practices is highly prevalent all over world with estimated prevalence of 37% in urban population and 17% in rural population in India, 68% in Europe and African countries being 40.7-81.8%.[11-13] The prevalence of self medication practices among healthcare workers to be high as 52.1% in Nigeria.[14] As the healthcare workers gain adequate knowledge of medications they would influence the other population in practicing the self medication which could have benefits as well as harmful effects. This study was conducted with the objective of evaluating the knowledge, attitude and practices among healthcare workers working at Mc Gann teaching district hospital Shimoga, a tertiary hospital.

## METHODS

After obtaining permission from the institutional Ethics Committee, this prospective cross sectional study was conducted among healthcare workers working at Mc Gann District Teaching Hospital Shimoga within a period of 6 months from june 2016 to October 2017. Total of 150 respondent participants with minimum 1 year of work experience were recruited in the study.

The participants were divided into two groups with 75 participants each. Group I included nursing staff who had completed either of the nursing course such as- BSc nursing, Diploma in nursing, GNM and ANM. Group II included the paramedical staff who had completed a paramedical course either diploma or certificate course such as- DOT (diploma in ophthalmic technology), COTT (certificate course of operation theatre technology), pharmacist, DMXT (Diploma in medical X ray technology) etc other than nursing staff.

Knowledge attitude and practice was evaluated by a semi structured validated pretested questionnaire to the participants in their understandable language either, in English or in Kannada. The semi structured questionnaire included two parts. Part I consisted of the demographic data (age, gender, place, education station, working position and working experience). Part II consisted of total 30 questions regarding self medication with 10 questions related to knowledge, attitude and practice each. The participants were instructed to answer all the questions provided with their fullest knowledge.

Informed consent was obtained formed all the participants. All the categorical variables were described in term of frequencies and compared between the groups with Chi square test. age of participants was assessed in terms of mean and standard deviation (SD) and was compared with student t test. All the data were entered in Microsoft excel 2007 and statistical assessment was conducted with SPSS 16. A p value with $\leq 0.05$ was considered to be significant.

## RESULTS

### *Demographic data*

The mean age (mean±SD) of the participants in group I and group II are 31.79±8.309 and 34.15 (±8.168) respectively with no statistical difference p =0.081. Female participants were dominant in both the groups with 70 (93.3%) in group I and 62 (82.7%) in group II. Compared to group I 5 (6.7%), group II 13 (17.3%) had more number of male participants which was statistically significant p= 0.044 (Table 1).

### *Assessment of knowledge of self medication among participants*

Both the groups knowledge regarding the definition of self medication was almost the same (group I 63 (84.0%) and group II 62 (82.7%) p = 0.900) and the knowledge pertaining to the diagnosis of self medication was also similar in both the groups (group I 65 (86.7%) and group II 64 (85.3%) p= 0.456). Group II obtained the information

regarding the medications/ drug used for self medication from media 9books, television, magazine, newspaper) and internet more than Group I which was statistically significant (group I 12 (16.0%) and group II 29 (38.7%) p=0.002) and (group I 8 (10.7%) and group II 22 (29.3%) p=8.167). Group I knew the correct full form of OTC (over the counter) drugs compared to group II which was statistically significant (group I 58 (77.30%) and group II 37 (49.3%) p=0.001). Group II knew better that ayurvedic drugs also come under OTC drugs (group I 16 (21.3%) and group II 30 (40.0%) p=0.012). Group I gained knowledge regarding practicing self medication by observing the drug prescribed by the physician more compared to group II (group I 35 (46.7%) and group II 22 (29.3%) p=0.029) which was statistically significant (Table 2).

**Table 1: Demographic data.**

| Demographic variable | Group I (n= 75) | Group II (n= 75) | $X^2$ (df) | P value |
|---|---|---|---|---|
| Age (Mean ±SD) | 31.79±8.30 | 34.15 ±8.16 | - | 0.081 |
| Gender | | | | |
| Male | 5(6.7%) | 13(17.3%) | 4.04(1) | 0.044* |
| Female | 70 (93.3%) | 62 (82.7%) | | |
| Background (n%) | | | | |
| Rural | 50 (66.67%) | 52 (69.33%) | 0.123(1) | 0.726 |
| Urban | 25 (33.33%) | 23 (30.67) | | |
| Marital status (n%) | | | | |
| Married | 62 (82.67%) | 68 (90.67%) | 2.07(1) | 0.152 |
| Unmarried | 13 (17.33%) | 7 (9.33%) | | |
| Year of work experience (n%) | | | | |
| 1-5 yr | 29 (38.66%) | 17 (22.67%) | 5.90(4) | 0.207 |
| 6-10yr | 16 (21.33%) | 24 (32.00%) | | |
| 11-15yr | 13 (17.33%) | 11(14.66%) | | |
| 16-20 yr | 6 (8.0%) | 7 (9.33%) | | |
| >20 yr | 11 (14.66%) | 16 (21.33%) | | |

*P value ≤0.05

**Table 2: Participants knowledge related to self medication.**

| Questions | Group I (n= 75) | Group II (n= 75) | $X^2$ (df) | P value |
|---|---|---|---|---|
| 1. Self medication is taking medication without any medical supervision | 63(84.0%) | 62 (82.7%) | 0.585(1) | 0.900 |
| 2.In self medication diagnosis is done by the individual himself | 65(86.7%) | 64(85.3%) | 2.608(3) | 0.456 |
| 3.Information about self medication was obtained from | | | | |
| a) Pharmacist | 10(13.3%) | 15(20.0%) | 1.200(1) | 0.273 |
| b) Individual himself | 20(26.7%) | 18(24.0%) | 0.1414(1) | 0.707 |
| c) Family members/friends/ colleagues | 33(44.0%) | 24(32.0%) | 2.292(1) | 0.130 |
| d) Media (television, radio, magazine, newspaper) | 12(16.0%) | 29(38.7%) | 9.7(1) | 0.002* |
| e) Books | 11(14.7%) | 18(24.0%) | 2.095(1) | 0.148 |
| f) Internet | 8(10.7%) | 22(29.3%) | 8.167(1) | 0.004* |
| 4. For self medication prescription is necessary | 44(58.7%) | 48(64.00%) | 0.450(1) | 0.502 |
| 5.OTC drugs stands for | 58(77.3%) | 37(49.3%) | 12.660(1) | 0.001* |
| 6. OTC drugs are procured or dispensed by the pharmacist without prescription | 51(68.0%) | 46(61.3%) | 0.729(1) | 0.393 |
| 7. OTC drugs have no schedule | 40(53.3%) | 29(38.7%) | 3.247(1) | 0.072 |
| 8. OTC drug does not need prescription | 38(40.0%) | 41(54.7%) | 3.932(2) | 0.140 |
| 9.Ayurvedic drugs are also considered as OTC drugs | 16(21.3%) | 30(40.0%) | 12.873(4) | 0.012* |
| 10.How did you gain knowledge regarding practicing self medication | | | | |
| a) Previous consultation | 12(16.0%) | 21(28.0%) | 3.147(1) | 0.076 |
| b) Drug advertisement | 7(9.3%) | 11(14.7%) | 1.010(1) | 0.315 |
| c) From relatives/friends | 7(9.3%) | 16(21.3%) | 4.160(1) | 0.041* |
| d) From literature | 17(22.7%) | 12(16.0%) | 1.069(1) | 0.301 |
| e) From Practitioner you work under | 19(25.3%) | 27(36.0%) | 2.007(1) | 0.157 |
| f) By observing the drug prescribed by the practitioner | 35(46.7%) | 22(29.3%) | 4.782(1) | 0.029* |

*P value ≤0.05

***Assessment of attitude of participants towards self medication***

Group I believes that self medication is entirely safe compared to group II which was statistically significant (group I 66 (88.7%) and group II 46 (61.3%) p=0.029) and few participants 26 (34.7%) in group II alone believes that self medication is not safe always. Group I prefers self medication as it has advantage of being convenient in treating illness when consultation is unavailable/ as an emergency treatment compared to group I being statistically significant (group I 53 (70.66%) and group II 23 (30.66%) p=<0.0001). Group I believed improper/ insufficient dosage and frequency of medication used to be the most common disadvantage of self medication (group I 59 (78.66%) and group II 39 (52.00%) p=<0.0001) were as Group II believed self medication had more chance of side effects or drug interactions (group I 12 (16.00%) and group II 58 (77.33%) p=<0.0001). Group II preferred to seek pharmacist guidance compared to group 1 (group I 44 (58.70%) and group II 61 (81.33%) p=<0.0001). Group II preferred to suggest self medication for people without medical knowledge more compared to group I (group I 38 (58.70%) and group II 24 (32.0%) p=<0.0001) (Table 3).

**Table 3: participants attitude related towards self medication.**

| Questions | Group I (n= 75) | Group II (n= 75) | $X^2$ (df) | P value |
|---|---|---|---|---|
| 1. Self medication is entirely safe. | | | | |
| a) Yes | 66 (88.0%) | 46 (61.3%) | 32.571(2) | 0.001* |
| b) No | 9 (12%) | 3 (4.00%) | | |
| c) Not always | 0 | 26 (34.7%) | | |
| 2.Self medication have advantages: | | | | |
| a) yes | 58 (77.33%) | 52(69.33%) | 1.227(1) | 0.268 |
| b) No | 17 (22.66%) | 23(30.66%) | | |
| 3.The advantages of self medication are: | | | | |
| a) Saves time from consulting doctor | 40 (53.33%) | 22(29.33%) | 8.908 (1) | 0.003* |
| b) Helps in treating minor ailments | 43 (57.33%) | 28(37.33%) | 6.017 (1) | 0.014* |
| c) Saves consultation fees | 51 (68.00%) | 22(29.33%) | 22.443(1) | <0.0001* |
| d) Convenient in treating illness when consultation is unavailable/ as an emergency treatment | 53 (70.66%) | 23(30.66%) | 24.00(1) | <0.0001* |
| e) Immediate relief of symptoms | 41 (54.66%) | 27(36.00%) | 5.273(1) | 0.022* |
| 4. Self medication has disadvantages: | | | | |
| a) Yes | 65 (86.66%) | 57(76.66%) | 3.339(2) | 0.188 |
| b) No | 10 (13.33%) | 18(24.00%) | | |
| 5. Disadvantages of self medications are: | | | | |
| a) incorrect self diagnosis | 49 (65.33%) | 22(29.33%) | 19.49(1) | <0.0001* |
| b) Risk of side effects/interactions | 12 (16.00%) | 58(77.33%) | 56.679(1) | <0.0001* |
| c) Improper/insufficient dosage and frequency | 59 (78.66%) | 39(52.00%) | 11.774(1) | <0.0001* |
| d) Incorrect choice of therapy | 30 (40.00%) | 6 (8.00%) | 21.053(1) | <0.0001* |
| e) risk of dependence and addiction | 30 (40.00%) | 8 (10.66%) | 17.058(1) | <0.0001* |
| f) can lead to toxicity and death | 19 (25.33%) | 16(21.33%) | 0.335(1) | 0.562 |
| 6.Do you prefer self medication for | | | | |
| a) Common ailments | 73(97.3) | 74(98.7%) | 0.340(1) | 0.560 |
| b) Serious conditions | 2(2.7%) | 1(1.3%) | | |
| 7. Would you like to seek pharmacist guidance before self medication | | | | |
| a) Yes | 44(58.7%) | 61(81.3%) | 9.175(1) | 0.002* |
| b) No | 31(41.3%) | 14(18.7%) | | |
| 8.Would you like to seed physician opinion if symptoms worsen with self medication | | | | |
| a) Yes | 74(98.7%) | 74(98.7%) | 0.000(1) | 1.000 |
| b) No | 1(1.3%) | 1(1.3%) | | |
| 9. Do you suggest self medication for people without medical knowledge | | | | |
| a) Yes | 38(50.7%) | 24(32.0%) | 5.389(1) | 0.020* |
| b) No | 37(49.3%) | 51(68.0%) | | |
| 10. Do you prefer to consult the doctor for treating side effects due to self medication | | | | |
| a) Yes | 75(100%) | 70(93.3%) | 5.172(1) | 0.023* |
| b) No | 0 | 5(6.7%) | | |

*P value ≤0.05

**Table 4: Participants practices related to self medication.**

| Questions | Group I (n= 75) | Group II (n= 75) | $X^2$ (df) | P value |
|---|---|---|---|---|
| 1. Commonly practiced self medication are drugs are | | | | |
| a) injectables | 0 | 9 (12.0%) | 9.574 (1) | 0.002* |
| b) non injectables | 75 (100%) | 66 (88.0%) | | |
| 2. Common medical condition for which self medication is practiced | | | | |
| a) Fever | 67 (89.3%) | 63(84.00%) | 0.923 (1) | 0.337 |
| b) Cold | 53 (70.6%) | 48 (64.0%) | 0.759 (1) | 0.384 |
| c) Cough | 33 (44.00%) | 27 (36.0%) | 1.00 (1) | 0.317 |
| d) Headache | 47 (62.66%) | 35(46.66%) | 3.874 (1) | 0.049* |
| e) Musculoskeletal pain | 44 (58.66%) | 27 (36.0%) | 7.729 (1) | 0.005* |
| f) Diarrhea | 18 (24.00%) | 18 (24.0%) | 0.00 (1) | 1.00 |
| g) constipation | 1 (1.33%) | 2 (2.66%) | 0.340 (1) | 0.560 |
| h) Allergic reactions | 11 (14.66%) | 14(18.66%) | 0.432 (1) | 0.511 |
| i) Pain abdomen | 37 (49.33%) | 10(13.33%) | 22.588(1) | <0.0001* |
| j) Supplements | 8 (10.66%) | 9 (0.12%) | 0.066 (1) | 0.0797 |
| k) Nausea/Vomiting | 17 (22.66%) | 18(24.00%) | 0.037 (1) | 0.847 |
| l) Gastritis | 34 (45.33%) | 16(21.33%) | 9.720 (1) | 0.002* |
| m) Infections | 6 (8.00%) | 1(1.33%) | 3.746 (1) | 0.053 |
| n) Burns | 2 (2.66%) | 2 (2.66%) | 0.00 (1) | 1.00 |
| o) Lack of sleep | 3 (4.0%) | 5 (6.66%) | 3.061(1) | 0.680 |
| p) Mouth ulcers | 4 (5.33%) | 5 (6.66%) | 0.118 (1) | 0.731 |
| 3.Commonly used drugs for self medication | | | | |
| a) Analgesics: NSAIDs (Paracetamol, Diclofenac, Aceclofenac, Aspirin + Caffeine, Ibuprofen) | 75 (100%) | 75 (100%) | 1.007 (1) | 0.314 |
| b) Antihistamines (Cetrizine, Chlorphenaramine, Cinnarizine) | 45 (60.00%) | 38(50.66%) | 1.322 (1) | 0.250 |
| c) Gastrointestinal system: Drugs used for gastritis (Ranitidine, Pantoprazole, Omeprazole, Suralfate, Antacids) | 48 (68.00%) | 38(50.66%) | 2.725 (1) | 0.099 |
| Antiemetics (Domperidone, Metaclopramide) | 16 (21.33%) | 8 (10.66%) | 3.175 (1) | 0.075 |
| Drugs for diarrhea (ORS, Loperamide) | 5 (6.66%) | 9 (12.00%) | 1.261(1) | 0.262 |
| Drugs for constipation (Lactulose) | 2 (2.66%) | 3 (4.00%) | 0.000 (1) | 1.00 |
| Drugs for pain abdomen (Mefenamic acid) | 12 (16.00%) | 2 (2.66%) | 7.878 (1) | 0.005* |
| d)Antimicrobial agents | | | | |
| Antibiotics (Amoxicillin+clavulinic acid, Cefexime, Cefadroxil, Ciprofloxacin, Ofloxacin, Azithromycin, Cefotaxime) | 26 (34.66%) | 14(18.66%) | 4.909 (1) | 0.027* |
| Antihelminthics (Albendazole) | 2 (2.66%) | 3 (4.00%) | 0.207 (1) | 0.649 |
| Antiprotozoal agents (Metronidazole) | 1 (1.33%) | 0 | 1.007 (1) | 0.316 |
| e) Respiratory system | | | | |
| Drugs for cough (syrup- Ascoril, Benadryl, ambrolite) | 12 (16.00%) | 12(16.00%) | 0.000(1) | 1.00 |
| f) CNS | | | | |
| Drugs for insomnia (Diazepam, Alprazolam) | 1 (1.33%) | 3 (4.00%) | 1.027 (1) | 0.311 |
| g) Dermatologics (Calamine lotion, silversulfadiazine cream, Neomycin powder, cotrimazole powder, Betamethasone cream, Betadine ointment) | 9 (12.00%) | 9 (12.00%) | 0.000 (1) | 1.00 |
| h) Nutritional Supplements (Calcium, Vitamin) | 14 (18.66%) | 7 (9.33%) | 2.713 (1) | 0.100 |
| 4. Do you store drugs used for self medication | | | | |
| a) Yes | 53 (70.7%) | 53 (70.7%) | 0.00 | 1.00 |
| b) No | 22 (29.3%) | 22 (29.3%) | | |
| 5. Most common drugs used for self medication are: | | | | |
| a) Ayurvedic | 29 (38.7%) | 28 (37.3%) | 0.28(1) | 0.866 |
| b) Allopathy | 48 (64.0%) | 42 (55.0%) | 1.00(1) | 0.317 |
| c) Homeopathy | 11 (14.7%) | 10 (13.3%) | 0.055(1) | 0.814 |
| 6. Have you ever practiced self medication | | | | |
| a) Yes | 68 (90.7%) | 61 (81.3%) | 2.713(1) | 0.100 |

**Table 4: Continue…**

| Questions | Group I (n= 75) | Group II (n= 75) | $X^2$ (df) | P value |
|---|---|---|---|---|
| b) No | 7 (9.3%) | 14 (18.7%) | | |
| 7. Were the symptoms/ illness relieved on self medication | | | | |
| a) Yes | 58 (77.3%) | 57 (76.0%) | 0.037(1) | 0.847 |
| b) No | 17 (22.7%) | 18 (24.0%) | | |
| 8. Have you experienced side effects after self medication | | | | |
| a) Yes | 17 (22.7%) | 18 (24.0%) | 0.037(1) | 0.847 |
| b) No | 58 (77.3%) | 57 (76.0%) | | |
| 9. Do you practice self medication to treat side effects occurred due to self medication | | | | |
| a) Yes | 10 (13.3%) | 33 (30.7%) | 6.566 (1) | 0.010* |
| b) No | 65 (86.7%) | 52 (69.3%) | | |
| 10. Do you read drug information sheet before self medication | | | | |
| a) Yes | 59 (78.7%) | 66 (88.0%) | 2.352(1) | 0.125 |
| b) No | 16 (21.3%) | 9 (12.0%) | | |

*P value ≤0.05

***Assessment of practice of self medication among participants***

There were 68 (90.7%) in group I and 61 (81.3%) practiced self medication (p= 0.100) and in group II alone 9 (12.0%) participants preferred injectables for self medication (p=0.002). The most common illness (Figure 1) for which self medication was practiced was fever in both the groups I [group I 67 (89.30%) and group II 63 (84.00%) p=0.337]. Most common drugs used for self medication was NSAIDS (non steroidal anti-inflammatory drugs) in both the groups being 75 (100%). Antibiotics was self medicated by 26 (2.66%) in group I and 14 (18.66%) in group II.

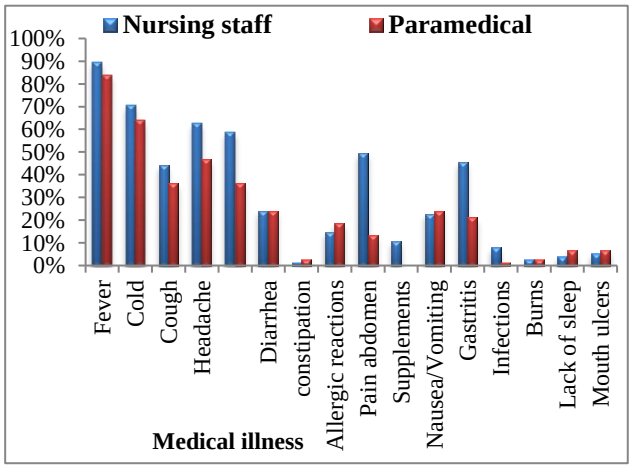


**Figure 1: Medical illness for which self medication was practiced by the healthcare workers.**

## DISCUSSION

The overall knowledge, attitude and practice of self medication among the healthcare workers in the present study was encouraging. Healthcare workers gain adequate knowledge regarding medications and practice self medications which would influence the other populations with less knowledge related to medications. Other than the occupation related to health socioeconomic status, technologies such as internet, media etc promotes self medication in several populations.[15]

The overall prevalence of self medication in nursing staff and paramedical staff was 100% in this study were as in a study conducted by Williams A et al the prevalence of self medication among nursing and midwifery students was 91.7%.[16] In a study conducted by Asa auta et al, the prevalence of self medication among medicine vendors was 75.4%.[17] Another study conducted among the health workers in tertiary hospital at Ondo State, Nigeria reported a prevalence of 73%.[18] Demographic variable such as education status, socioeconomic status, gender and age also affect the status of self medication, with Self-medication being more in advanced education, in middle income earners, female and lesser than 40 years of age.[19]

Self medication is practiced due to the advantage of being convenient, saves time from consulting doctor, helps in treating minor ailments, being more economical when reaching doctor becomes difficult and early/initial relief of symptoms before consulting doctor.[20,21] Though self medication has advantages it is becoming an occupational hazard due to the ill effects of self medications such as use of sub therapeutic or toxic doses, use of improper drug, drug interactions, drug abuse or drug dependance, failure to diagnose the illness, wastage of health resources due to illicit use and drug resistance.[20,21] Self medication or irrational use of antibiotics has led society to antibiotic resistance which is a serious health problem worldwide.[22,23]

The major factor which influence the Healthcare worker to practice self medication was by observing the drug prescribed by the practitioner constituting 35 (46.7%) in nursing staff and 22 (29.3%) in paramedical staff which was significant (p=0.029). Palestinian medical and non medical students practiced self medication as the majority of them (58%) felt the illness was simple and also from the experience of previous episodes (29%).[24] Media plays a highly influential role in procuring information related to self medications in general population. Compared to the other media internet carry more than 90.0% of the global information capacity. In this study group II preferred (22 (29.3%) internet to gain knowledge related to self medication more compared to the group I. literacy and public health education also plays a vital role in practicing self medication.[25]

Nowadays there is an increase trend in the transfer of prescription ("Rx") medicines to non-prescription or OTC medicines which is known as "Rx-to-OTC switch".[26] OTC switch occurs when a new medicine after being used in large population with adequate scientific information for suitable conditions manufacturer may choose to apply to procure OTC status from appropriate authority.[26] Knowledge regarding the OTC medications which are the most common groups of drugs practiced for self medication was better in the nursing group than the other paramedical staff in this study. OTC drugs are effective and safer if used with appropriate instruction, information for proper diagnosis with adequate dosage and route of administration. Precautions should be laid when used in children, geriatric age group and pregnancy.[27,28]

In this study, the most common reasons reported by a large number of participants for self-medication was for common ailments such as fever [which was highest constituting 67(89.3%) in nursing staff and 63(84.00%)in other paramedical staff], cold, cough, headache, musculoskeletal pain etc (Figure 1). Residents in Wuhan, China practiced self medication for cough and cold the most (55.1%).[29] Due to the ease of procuring the medications from the hospital or the working place several drugs belonging to different groups was self medicated among the healthcare workers in this study. NSAIDS was the most common drug self medicated in all the participants, followed by antihistamine and drugs acting on GIT. Antibiotics were commonly used by the nursing staff (34.66%) compared to the other paramedical staff. In a study conducted by Belachew Gutema G et al, reported NSAIDS (42.2%) followed by antibiotics to be the most common group of drug self medicated by the health sciences students.[30]

Though self medication has advantages, self- medication has been negatively used as malpractice with increased risk of adverse drug reactions, addiction, drug dependence, drug interactions, food and drug interactions, inadequate dosing and polypharmacy.[31] In this study 6.7% of non nursing staff practiced self medication to treat the side effects due to self medication. Such practices would lead to inadvertent effects of self medication and can harm ones health status, hence it is always appropriate to follow appropriate instructions before self medications and consult the practitioner to treat the adverse effects due to self medication.

## CONCLUSION

Self care plays a vital role in maintenance of health. Healthcare workers having the knowledge of medicines prescribed through their work experiences are more prone to self medication and also influence the other non medical related population to practice self medication. It is always advisable to approach the physician for treating ailments when the self medication practice in not a responsible one.

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