

A Descriptive Study to Assess the Knowledge, Practice and Factors Influencing Self-Medication Among Nursing Students in Selected College, Bhilai, Chhattisgarh

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Abstract: Self-medication refers to the use of medicines by individuals to treat self-recognized symptoms or health conditions without consulting a qualified healthcare professional. It is a common practice among young adults and students. Nursing students may be more likely to practice self-medication due to their basic knowledge of diseases, medicines, dosage, and treatment procedures, along with easy access to healthcare information and medications. Common reasons include previous experience with similar illnesses, minor health problems, and convenience, saving time and money, and avoiding professional consultation. Although self-medication may provide immediate relief from minor ailments, inappropriate use can result in adverse drug reactions, drug interactions, incorrect diagnosis, treatment failure, antibiotic resistance, and medication dependence. As future healthcare professionals, nursing students should possess adequate knowledge and follow safe medication practices. The aim of the present study was to assess the knowledge, practice, and factors influencing self-medication among nursing students in selected colleges of Bhilai, Chhattisgarh is associated with appropriate practices related to self-medication among nursing students. **Material and Method:** A descriptive research design was adopted to conduct study. Target population was nursing students of BSc nursing 1st, 2nd 3rd and 4th year. A simple random sampling (probability) technique was utilized for select in a sample of 60 students of Shri Shankaracharya College of Nursing, Hudco, Bhilai Durg District. Expert opinion and content validity of the tools established by five experts (medical surgical nursing) and one statistician. Reliability tool was established by using Karl Pearson formula and 'r' was found to be 0.89. The tool was found valid and reliable. Data collection was done from 5 January to 4 February, 2023 for main study. Formal written Permission was taken from the principal of Shri shankaracharya college of Nursing Hudco, Bhilai (C.G.). **Result:** Overall analysis of the study shows that out of 60 nursing students, 21 (35%) had excellent knowledge regarding self-medication. 19 (31.67%) students had good knowledge, while another 19 (31.67%) students had average knowledge. Only 1 (1.66%) student needed improvement in knowledge. In practice out of 60 nursing students, 38 (63.33%) had excellent practice regarding self-medication. 16 (26.67%) students had good practice, while 6 (10%) students needed improvement in their self-medication practices. The overall knowledge score of the 60 nursing students was 472/720, with a mean score percentage was 65.55 % and a standard deviation The overall practice score

of the 60 nursing students was 381/600, with a mean practice score of 6.35 and a standard deviation of 1.61. The mean percentage was 63.50%. Positive correlation between knowledge and practice regarding self-medication that was 0.89. **Conclusion:** The study conducted that the study concluded that the majority of nursing students had adequate knowledge regarding self-medication and demonstrated good practices. The findings indicate that students were generally aware of the appropriate use of medicines and followed safe self-medication practices.

Keywords: Self-medication, Knowledge, Practice, Nursing students, Medication use, Healthcare.

1. Introduction

Self-medication refers to the use of medicines to treat self-recognized illnesses or symptoms without consulting a qualified healthcare professional. It is common among young adults and students due to easy availability of medicines, previous experience, convenience, and the desire to save time and money. Common conditions treated through self-medication include headache, fever, cough, cold, body pain, gastrointestinal problems, and minor infections. Nursing students are an important group because their basic knowledge of diseases, medicines, dosage, and administration may influence their decision to self-medicate. However, inappropriate self-medication can cause adverse drug reactions, drug interactions, incorrect dosage, treatment failure, delayed diagnosis, and antimicrobial resistance. Previous studies have reported self-medication as a common practice among nursing and university students, with analgesics, antipyretics, and antibiotics frequently used. Therefore, assessing knowledge and practice among nursing students is essential to identify gaps and promote responsible medication use. Hence, the present study assessed knowledge and practice regarding self-medication among nursing students in selected colleges of Bhilai, Chhattisgarh.

A. Objective of the Study

- To assess knowledge, practice and factors influencing self-

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medication among nursing students.

- To find out the co-relation between knowledge and practice of self-medication among nursing students.
- To find out the association between knowledge and practice with selected socio-demographic variables.

B. Hypothesis

- H0: There will be no significant difference between knowledge, practice score and factor influencing self-medication among nursing students.
- H1: There will be significant difference between knowledge, practice score and factor influencing self-medication among nursing students.
- H2: There will be significant correlation between knowledge score & practice score on self-medication among nursing students.
- H3: There will be significant association between knowledge score & practice score with selected socio-demographic variables.

C. Operational Definition

- Assess: It refers to gather information from students on self-medication.
- Knowledge: It refers to the facts, information given by nursing students.
- Practice: It refers to the self-reported usage of medication carried out by the nursing students.
- Factors influencing: It refers to those causes that refers to practice of self-medication.
- Self-medication: It refers to the use of prescribed drug to treat self-diagnosed disorder or symptoms.
- Nursing students: It refers to individuals enrolled in a college of nursing studied in B.Sc. nursing 1st year 2nd year 3rd year and 4th year.

D. Sampling Criteria

1) Inclusion Criteria

- Those who were willing to participate in the study.
- Those who were study in Shri Shankaracharya College of nursing Bhilai.

2) Exclusion Criteria

- Students those who were sick.
- Those who were not present at the day of students.

2. Material and Methods

Conceptual frame work adopted for the study was conceptual framework on general system model (Ludwing von Bertalanffy 1968) in this study descriptive research design was used. The target population was nursing students of Bhilai and accessible population was nursing students studying in Shri Shankaracharya College of Nursing Hudco Bhilai, Chhattisgarh.

The setting for the present study was Shri Shankaracharya College of Nursing Hudco Bhilai (C.G.). The sample consisted of 60 subjects. The simple random sampling (probability) technique was adopted to select the subjects. In the present study, independent variable and dependent variables

knowledge, and practice of self-medication of nursing students. dependent variable was self-medication.

Description of the Tool:

Data collection tools are the procedure or instruments used by the researcher to observe or measure the key variables in the research problem.

It comprised of 4 parts:

- Section A – First section includes socio- demographic variables
- Section B – This section includes 12 self-structured questions of knowledge regarding knowledge of self-medication.
- Section C – This section includes 10 checklist self-structured statements practice of self-medication.
- Section D – This includes 16 rating scale of factors influencing of self - medication.

Content Validity:

Content validity was established by requesting to experts, nursing experts in the field of nursing specialist, and one statistic to go through the developed tool and give the valuable suggestions. Their suggestions of experts were incorporated in the tools and then noted in the final copy for the present study

Pilot Study:

The pilot study was conducted from 08/12/2022 to 09/12/2022 to assess the feasibility of the study and to decide analysis plan at CG College of Nursing, Bhilai (C.G.). The pilot study was conducted on 10 samples. The obtained reliability coefficient was high $r = "0.89"$. which was significant.

Organization of Data:

The analysis of data is organized and presented under the following heading

Section I: Description of socio demographic variables in frequency and percentage.

Section II: Criteria wise analysis of knowledge score in frequency and percentage.

Section III: Criteria wise analysis of practice score in frequency and percentage.

Section IV: Criteria wise analysis of factors influencing self-medication in frequency and percentage.

Section V: Overall comparison of knowledge & practice score through mean, mean percentage and standard deviation

Section VI: Description of frequency and percentage of common drugs used for self – medication

Section VII: Correlation between knowledge & practice regarding self- medication

Section VIII: Chi-square analysis for association between the knowledge score and practice score of self-medication with their selected socio-demographic variables.

3. Result and Discussion

Section A: Distribution of the Subject According to Socio-Demographics Variable.

Distribution of 60 nursing students according to gender. Out of 60 students, 50 (83.33%) were female, while 10 (16.67%) were male.

Distribution of subjects according to the year of study. It is observed that 15 subjects (25%) each were from B.Sc. Nursing 1st year, 2nd year, 3rd year, and 4th year. Thus, the study sample was equally distributed among all four years of B.Sc. Nursing, with each year contributing an equal proportion of 25% of the total subjects.

Distribution of subjects according to religion. It is observed that the majority of the subjects, 52 (86.67%), were Hindu. 7 subjects (11.67%) were Christian, while only 1 subject (1.66%) was Muslim. None of the subjects, 0 (0%), belonged to other religions. Thus, the study population was predominantly Hindu (86.67%).

Distribution of subjects according to their father's occupation. It is observed that 54 subjects (90%) had fathers who were non-health professionals, whereas 6 subjects (10%) had fathers who were health professionals.

Distribution of subjects according to their mother's occupation. It is observed that 52 subjects (86.67%) had mothers who were non-health professionals, whereas 8 subjects (13.33%) had mothers who were health professionals.

Distribution of subjects according to their area of residence. It is observed that 37 subjects (61.67%) were from urban areas, whereas 23 subjects (38.33%) were from rural areas.

Distribution of subjects according to the reason for self-medication. It is observed that 34 subjects (56.67%) practiced self-medication for symptomatic relief, while 26 subjects (43.33%) practiced self-medication for preventive purposes. None of the subjects (0%) reported any other reason for self-medication.

Distribution of subjects according to their source of information regarding self-medication. It is observed that 23 subjects (38.33%) obtained information from a previous prescription, followed by 19 subjects (31.67%) who obtained information from print media. 8 subjects (13.33%) received information from drug shops, while 7 subjects (11.67%) obtained information through electronic media. Only 3 subjects (5%) reported peer groups as their source of information.

The distribution of subjects according to the duration of self-medication. It is observed that 47 subjects (78.33%) practiced self-medication as and when required. 11 subjects (18.33%) reported using self-medication for less than a week, whereas only 2 subjects (3.34%) continued self-medication for more than a week.

Section B: Criteria wise Analysis of Knowledge Score of Subjects Regarding Self-Medication the distribution of subjects according to their knowledge score regarding.

It is observed that 21 subjects (35%) had an excellent level of knowledge. 19 subjects (31.67%) had good knowledge, while an equal number of 19 subjects (31.67%) had an average level of knowledge.

Only 1 subject (1.66%) was categorized as needing improvement.

Section C: Analysis of Practice Score of Subjects Regarding Self-Medication

The distribution of subjects according to their practice score regarding self-medication. It is observed that 38 subjects (63.33%) had excellent practice, while 16 subjects (26.67%)

had good practice. Only 6 subjects (10%) were categorized as needing improvement in their practice regarding self-medication.

Section D: The responses were categorized as strongly disagree, disagree, neutral, agree, and strongly agree for factors influenced the subjects' practice of self-medication.

The findings indicate that several factors influenced the subjects' practice of self-medication.

- Regarding knowledge about medicines, 22 subjects (36.67%) agreed and 18 subjects (30%) strongly agreed that having more knowledge about medicines encouraged them to take self-medication.
- For having family members working in the medical field, 21 subjects (35%) agreed, while 22 subjects (36.67%) disagreed.
- Regarding the availability of medicines at home, 23 subjects (38.33%) agreed and 21 subjects (35%) strongly agreed, indicating that easy availability of medicines was an important influencing factor.
- Concerning costly physician fees, 18 subjects (30%) agreed and 16 subjects (26.67%) strongly agreed that high consultation costs influenced their decision to self-medicate.
- Regarding knowledge gained through the internet, 18 subjects (30%) agreed, while 15 subjects (25%) remained neutral.
- For taking the same medicine previously prescribed by a doctor when similar symptoms occurred, 18 subjects (30%) disagreed and 15 subjects (25%) strongly disagreed, suggesting that this factor was not strongly supported by a large proportion of subjects.
- Regarding knowledge of the disease condition and its treatment, 19 subjects (31.67%) disagreed, while 15 subjects (25%) agreed.
- Regarding the clinic being far from home, 20 subjects (33.34%) strongly disagreed and 18 subjects (30%) disagreed, indicating that distance from the clinic was not a major influencing factor for most subjects.
- Regarding being busy with their study schedule, 21 subjects (35%) strongly agreed and 15 subjects (25%) agreed, suggesting that academic workload contributed to self-medication.
- The statement "I take medicine when I feel ill or sick" received the highest agreement, with 19 subjects (31.67%) agreeing and 24 subjects (40%) strongly agreeing.
- Regarding the ability to adjust the dose of a drug when ill, 16 subjects (26.67%) agreed and 21 subjects (35%) strongly agreed.
- Exposure to medicine advertisements was not a major influencing factor, as 22 subjects (36.67%) strongly disagreed and 16 subjects (26.67%) disagreed.
- Regarding taking self-medication whenever symptoms arise, 21 subjects (35%) agreed and 12 subjects (20%) strongly agreed.
- For the perception that consulting a doctor is time-

consuming, 20 subjects (33.34%) strongly disagreed and 19 subjects (31.67%) disagreed, indicating that this was not considered a major factor by most subjects.

- Regarding knowledge about the method of medicine administration, 20 subjects (33.34%) agreed and 22 subjects (36.67%) strongly agreed, showing that familiarity with administration methods may contribute to self-medication.
- Finally, regarding the belief that self-medication is safe for all age groups, 31 subjects (51.67%) strongly disagreed and 13 subjects (21.67%) disagreed, indicating that the majority of subjects did not consider self-medication universally safe for all age groups.

Section E: Overall Comparison of Knowledge Score and Practice Score

The mean knowledge score of the subjects was 7.86, with a mean percentage of 13.1% and a standard deviation of 2.41. The mean practice score was 6.35, with a mean percentage of 10.58% and a standard deviation of 1.61.

Section F: Correlation Between Knowledge and Practice Regarding Self-Medication

The mean knowledge score was 7.86 with a standard deviation of 2.41, while the mean practice score was 6.38 with a standard deviation of 1.63. The Pearson's correlation coefficient (r) was 0.83, indicating a positive correlation between knowledge and practice scores.

Section G: Chi-square analysis of the association between the practice level regarding self-medication and selected socio-demographic variables among the subjects. The association was tested at the 0.05 level of significance.

- Gender: The calculated chi-square value was 5.92 with 2 degrees of freedom, compared with the critical value of 5.99. Since $5.92 < 5.99$, the association between gender and practice was not statistically significant.
- Age: The calculated chi-square value was 9.31 with 4 degrees of freedom, compared with the critical value of 11.07. Since $9.31 < 11.07$, there was no significant association between age and practice.
- Year of study: The calculated chi-square value was 29.34 with 6 degrees of freedom, compared with the critical value of 12.59. Since $29.34 > 12.59$, there was a statistically significant association between year of study and practice.
- Religion: The calculated chi-square value was 9.91 with 6 degrees of freedom, compared with the critical value of 12.59. Since $9.91 < 12.59$, the association between religion and practice was not statistically significant.
- Father's occupation: The calculated chi-square value was 4.31 with 2 degrees of freedom, compared with the critical value of 5.99. Since $4.31 < 5.99$, there was no significant association between father's occupation and practice.
- Mother's occupation: The calculated chi-square value

was 6.06 with 2 degrees of freedom, compared with the critical value of 5.99. Since $6.06 > 5.99$, there was a statistically significant association between mother's occupation and practice.

- Area of residence: The calculated chi-square value was 3.67 with 2 degrees of freedom, compared with the critical value of 5.99. Since $3.67 < 5.99$, the association between area of residence and practice was not statistically significant.
- Reason for self-medication: The calculated chi-square value was 7.84 with 4 degrees of freedom, compared with the critical value of 9.49. Since $7.84 < 9.49$, there was no significant association between reason for self-medication and practice.
- Source of information: The calculated chi-square value was 10.24 with 8 degrees of freedom, compared with the critical value of 15.51. Since $10.24 < 15.51$, the association between source of information and practice was not statistically significant.
- Duration of self-medication: The calculated chi-square value was 7.13 with 4 degrees of freedom, compared with the critical value of 9.49. Since $7.13 < 9.49$, there was no significant association between duration of self-medication and practice.

4. Implications

The finding of the present study has implication in the field of nursing education, nursing administration, nursing research, nursing practice

Nursing Practice: The most important role of the nurse to provide awareness to the students regarding self-medication.

- The nurse is clinically responsible for the giving knowledge about self-medication, their harmful effect.

Nursing Education:

- The nursing curriculum can be modified with more emphasis on knowledge among self-medication.
- Nursing personnel should give an opportunity to update their knowledge periodically.
- The nurse educator when equipped with proper knowledge will prepare students aware about self-medication, self-medication practice and factors responsible for self-medication.

Nursing Administration:

- The nursing administrator should give more emphasis on training & community nurse and school health nurse in self-medication.
- The administrator should give the opportunity to the school health nurses to arrange seminar special lecture etc. for students on self-medication so, they can be gain more knowledge regarding self-medication. Teaching students and training health and social care colleagues. Maintaining awareness of local community activities and opportunities.

Nursing Research:

- A profession seeking to improve the quality of its practices and to enable its professional status would

strive for continuous development of its body of knowledge.

- There are many studies conducted on self-medication, there is necessity of more studies in this field. The findings of the study have added to the existing body of the knowledge in the nursing profession.
- Other researcher may utilize the suggestions & recommendations for conducting further study. The tool & technique used has added to the body of knowledge & can be used for further references.

Limitations:

The study was limited in one group.

- The study only includes nursing students in selected college at Bhilai.
- Response of the subject was limited due to self-structured knowledge questionnaire.
- Sample size of 60.
- The sample size was less to make generalizations.
- Time span of study was short.

5. Recommendations

In the light of the study the following recommendations were made;

- The study can be replicated with a large number of students for generalizations.
- A comparative study can be conducted on health professional & non health professional students.
- An experimental study can be conducted on medical students.
- A cross-sectional study conducted on bank worker.
- A comparative study can be done by comparing between the knowledge and practice of self-

medication rural & urban people.

- A similar study can be conducted by using other research approach e.g. (Exploratory, experimental, quasi-experimental etc.).

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