



KNOWLEDGE OF DANGERS AND PRACTICE OF SELF-MEDICATION AMONG SECONDARY SCHOOL STUDENTS OF ANOHACHIA SOUTH LOCAL GOVERNMENT AREA, DELTA STATE, NIGERIA

¹*Tawari Erebi Patricia , ¹ Boloya Vukumo Eric

¹Department of Chemical Pathology, Faculty of Basic Medical Sciences, College of Health Science, Niger Delta University, Bayelsa State, Nigeria

*Corresponding author: Tawari Erebi Patricia

ABSTRACT

Background: In recent times, self-medication has been largely aided by vigorous promotional adverts by pharmaceutical companies. Self-medication as an aspect of drug abuse is a threat to youths and adolescents, people take drug for many reasons, for example, for fun, escapism sensual stimulation and as a result of frustration. This study aimed to ascertain knowledge of dangers of self-medication among secondary school students.

Methods: The descriptive cross-sectional survey was used to study 280 students aged 12-21 years in Anohachia South LGA. The subjects were selected simple random sampling. Data collected using a well-structured questionnaire were analyzed using Statistical Package for Social Sciences (version 15). Test of associations employed Chi-square statistical too with the level of significance taken at 5%.

Results: Despite the fact that 75% respondents knew about self-medication, only 36% knew about dangers associated with self-medication. An association was established between knowledge of self-medication age, class, gender and religion ($P=0.0038, 0.032, 0.047, 0.001$ respectively).

Conclusion: There is inadequate knowledge on dangers of self-medication among students, and knowledge was influence by gender.

KEY WORDS: Knowledge, Dangers, practices, self-medication, secondary, student

INTRODUCTION

Self-medication can be defined as self-prescription, dispensing and administration of drug without a medical expert's direction and supervision¹. Self-medication is a global phenomenon and is an age long health issue. It is an act that is as old as man and has been practiced many centuries ago, whereby tree barks, roots and herbs were used to treat ailments that afflict man at those times².

In recent times, self-medication has been largely aided by vigorous promotion adverts by pharmaceutical companies. In the print and media, people are continually urged to keep fit by taking drugs to prevent and cure their common ailments such as readily available over-the-counter include pain relievers, cough remedies, vitamins, tonics and many

others³. Self-medication as an aspect of drug abuse is a threat to youths and adolescents. Many factors are incorporated in perpetuating the act of self-medication. There are responsible self-medication and non-responsible self-medication²; while responsible self-medication has to do with approved and available medicine in a safe and effective way as directed though with no prescription, non-responsible self-medication is the use of drugs in the treatment of self-diagnosed ailments of disease without supervision by a physician². The proximity and number of outlets like manufacturing plants, drug shops, and even peddlers contribute to the increased rate of self-medication among teenagers and adults due to availability and accessibility to drugs⁴. Again, one of the strongest social reasons for people's involvement in self-medication is peer pressure. Both



teenagers and adults are involved. Such peer influence is characterized by the desire to be accepted among friends or in social circumstance. Crime among juveniles and self-medication is associated with poverty, deprivation, broken homes, and lack of parental care. Parental influence is a factor that contributes to self-medication. When parents engage in self-medication their children observe them and become accustomed to medication around the house. To children from homes where parents self-medicate, medication is a way of life, and they tend to imitate their parent.

The main aim of this study was to determine the knowledge of dangers and practice of self-medication among secondary school students in Anohachia South Local Government Area, Nigeria

METHODS

The study employed a descriptive cross-sectional survey to determine knowledge of self-medication among students. Three-hundred questionnaires were administered of which 280 with complete information were utilized for the study. The students for the study were randomly selected from 10 registered secondary schools in Anohachia South Local Government Area. The procedure involved 3 stages within age the simple random non-replacement sampling technique was used to draw samples, thus giving every member equal chance to be sampled. With the same simple random non-replacement sampling technique, 10 secondary schools were selected from the 20 registered secondary schools. In each selected secondary school, 3 classes were drawn using the simple random non-replacement sampling technique. In each class 10 students were drawn by using pie random non-replacement sampling technique. From each school, 30 students were randomly sampled giving all

of 30 students from the 10 randomly selected secondary schools.

A self-administered questionnaire was used in the collection of the data. The questionnaire was divided into 2 sections, section A comprises of personal data while section B comprises of 10 questions based on the objectives of the study. The data were analysed using statistical package for social sciences (version 15). Test of association was done using Chi-square statistics, with level of significance taken at 5%.

Ethical Consideration

Ethical clearance was obtained from the authority of the 10 selected schools. Informed consent was obtained from the participants.

RESULTS

Table 1 indicated that greater number 230 (81.1%) of the respondents were below the age of 21 years. One-hundred and seventeen (41.8%), were males while 163 (58.2%) were females. About 36.0% were within Junior Secondary School, 179(64.0%) were in Senior Secondary School. Christianity (62.5%) followed by Islam (17.9%) has the highest population. On family type, 51.1% of the respondents belong to the monogamy family type followed by single parenting (31.1%) has the highest population.

Table 1: Socio-Demographic Frequency distribution

| | Frequency | Percentage |
|---------------|------------|------------|
| Age | | |
| 12 - 14 | 50 | 17.9 |
| 15 - 17 | 97 | 34.6 |
| 18 - 20 | 83 | 29.6 |
| 21 and above | 50 | 17.9 |
| Total | 280 | 100 |
| Gender | | |
| Male | 117 | 41.8 |
| Female | 163 | 58.2 |
| Total | 280 | 100 |
| JSS class | 101 | 36.0 |
| SSS class | 179 | 64.0 |
| Total | 280 | 100 |



| Religion | | |
|-----------------|------------|------------|
| Christianity | 175 | 62.5 |
| Islam | 50 | 17.9 |
| Pegan | 28 | 10.0 |
| Traditionalist | 37 | 13.2 |
| Total | 280 | 100 |

| Family type | | |
|--------------------|------------|------------|
| Monogamy | 143 | 51.1 |
| Polygamy | 50 | 17.9 |
| Single parent | 87 | 31.1 |
| Total | 280 | 100 |

The Table 2 revealed that majority of the respondents 75% had knowledge of what self-medication was. In relation to the dangers associated with self-medication 64.0% do not have knowledge of dangers associated with self-medication. While on whether self-medication can lead to wrong diagnosis revealed that 48.0% of the respondents had knowledge that self-medication can lead to wrong diagnosis and treatment. About 41.0% had knowledge that self-medication can lead to drug addiction and dependence, while 29.0% had knowledge that self-medication can lead to damage of some vital organs.

This knowledge seemed to be significantly associated with age (P=0.0038), class (P=0.032), gender (P=0.047), and religion (P=0.001).

The findings of the current study revealed that adverts on TV, radio and new paper, friends, family, anxiety and to feel affiliated (64.3%, 71.4%, 78.6%, 56.4% and 54.3% respectively) were the motivational factors to self-medication among the students. Table indicates that respondents who engaged in self-medication were 153 (54.6%) and those who do not engaged in self-medication were 127 (45.4%). The following is the breakdown of respondents who practice self-medication according to family type and gender; those from monogamy family 46 (16.4%), polygamy 38 (13.6%) and single parenting 69 (24.6%). On practice of self-medication, 90 (32.1%) were males while 63 (22.5%) were females. Table 6 suggests that family type is significantly associated with practice of self-medication (p=0.047 for polygamy and p=0.001 for single parenting).

Table 2: Level of Knowledge of Self-medication and its Associated Dangers.

| | Frequency (n = 280) | Percentage (%) |
|---|--------------------------------|-----------------------|
| Do you know what self-medication is? | | |
| Yes | 210 | 75.0 |
| No | 70 | 25.0 |
| Total | 280 | 100 |
| Do you know that there are dangers associated with self-medication | | |
| Yes | 100 | 36.0 |
| No | 180 | 64.0 |
| Can self-medication lead to wrong diagnosis and treatment? | | |
| Yes | 135 | 48.0 |
| No | 145 | 52.0 |
| Total | 280 | 100 |



| Can self-medication lead to drugs addiction and dependence? | | |
|--|-----|------|
| Yes | 114 | 41.0 |
| No | 166 | 59.0 |
| Total | 280 | 100 |
| Does self-medication lead to damage of vital organs like the liver? | | |
| Yes | 80 | 29.0 |
| No | 200 | 71.0 |
| Total | 280 | 100 |
| Can Self-medication lead to drug resistance due to prolonged treatment? | | |
| Yes | 130 | 46.0 |
| No | 150 | 54.0 |
| Total | 280 | 100 |

Table 3: Knowledge on Dangers Associated with Self-Medication, General Information, Gender, Class and Religion

| General Information | Yes (%) | Demographic factors | χ^2 | P |
|------------------------------|------------|---------------------|----------|---------|
| Knowledge of self-medication | 210 (75.0) | Age | 5.028 | 0.0038* |
| | | Class | 8.633 | 0.032* |
| | | Gender | 12.65 | 0.047* |
| | | Religion | 15.37 | 0.001* |
| Knowledge of Dangers | 100 (25.7) | | | |

*Significant at $p < 0.05$.

Table 4: Motivational Factors of Self-medication

| | Yes (%) | No (%) |
|----------------------------------|-------------|------------|
| Motivational Factors | | |
| Adverts on TV, radio & newspaper | 180 (64.3) | 100 (35.7) |
| Friends | 80 (28.6) | 200 (71.4) |
| Family | 220 (78.6) | 60 (21.4) |
| Anxiety | 130 (46.4) | 158 (56.4) |
| To feel affiliated | 152 (54.3%) | 128 (45.7) |

Table 5: Family Type, Gender and Practice of Self-Medication

| | Yes (%) | No (%) |
|--------------------|-------------------|-------------------|
| Family type | | |
| Monogamy | 46 (16.4) | 97 (34.6) |
| Polygamy | 38 (13.6) | 12 (4.3) |
| Single parents | 69 (24.6) | 18 (6.4) |
| Total | 153 (54.6) | 127 (45.4) |
| Gender | | |
| Male | 90 (32.1) | 27 (9.6) |
| Female | 63 (22.5) | 100 (53.7) |
| Total | 153 (54.6) | 127 (45.4) |

**Table 6: Chi-Square Test of Family Type, Gender and Practice of Self-Medication**

| Family type | Practice (N/%) | χ^2 | Df | P value |
|------------------|----------------|----------|----|---------|
| Monogamy | 46 (16.4) | 64.436 | 2 | 0.65 |
| Polygamy | 38 (13.6) | 13.588 | 2 | 0.047* |
| Single parenting | 69 (24.6) | 26.972 | 1 | 0.001* |

*Significant at $p < 0.05$.

DISCUSSION

The Socio-demographic data according to Table 1 revealed that most of the participants were below the age of 21 years. This shows that most of the respondents were young and active and within their teenage years. This finding is similar to the findings of Awosusi and Konwea² where majority of their respondents were within the age range of 10-19 years. Respondents from senior class were more represented in the current study. Christianity followed by Islam has the highest population. This may be due to the fact that Christianity is the dominant religion in the area study. General knowledge on self-medication was good but poor for dangers associated with self-medication in the current study. The current study also revealed that respondents' knowledge on whether self-medication can lead to wrong diagnosis and treatment, drug addiction and dependence, damage to vital organs and to drug resistance due to prolonged use shows poor knowledge. It can however be argued that because the respondents in the current study were teenagers and lack information of the possible dangers associated with self-medication. Gangopadhyay⁵ found that lack of awareness of dangers of taking drugs without prescription is one of the reasons of self-medication practice. Kumar and Sharma⁶ in their study among medical students found that 52% respondents had good knowledge of self-medication and on dangers of self-medication. This may probably be due to the fact that respondents were medical students who have knowledge regarding the dangers associated with self-medication. The current study also revealed that 41.8% were males and 58.2% were females of which 32.1% males practice self-medication while 22.5% who indulged in self-medication were females. This finding on practice is similar to the findings of Philip, *et al.*,⁷.

On motivational factors of self-medication, this study shows that adverts on Television, radio and newspaper, friends, family, anxiety and to feel affiliated were reported as the motivational factors for self-medication (Table 4). Salem¹ and Fainzang³ in their studies found that internet and advertisement were the major source of identifying severity of a disease and respond to symptoms and gives credibility to the drug. Increase adverts on drugs

threatens health because it can lead to appropriate medication use. In the current study, it was also evidence that age, class, and religion were significantly associated with knowledge of self-medication (Table 3). This finding is in agreement with others studies^{2, 7}. The association was such that those within the ages of 15-21 years, in senior class and who were Christians had good knowledge of self-medication. Berrtoldi *et al.*,⁸ found that self-medication was higher among young people.

Practice of self-medication seem to be significantly associated with polygamy and single parenting families ($p=0.047$, $p=0.001$). Almasdy and Shariff⁹ found that family members are a reason of self-medication. Although girls dominated in the current study (58.2%), self-medication was significantly practiced among the males. Findings from our research (Table5) is consistent with the finding of Salem¹ where males were more likely to practice self-medication more than the females.

CONCLUSION

The findings of the current study suggest that students' knowledge and dangers associated with self-medication were not adequate enough to limit their exposure to self-medication. Much of what they knew were not sufficient to encourage behavioral change and health seeking behavior that is adequate to limit or eradicate self-medication used. Religious affiliation, gender, class and age had influence on knowledge of dangers of self-medication among the study participants in the current study. Family influence and adverts on radio and television, feeling of affiliation have high motivational effects on the students.

ACKNOWLEDGEMENTS

The authors would like to acknowledge and thank the students who participated in this research and the school Principals from the 10 registered secondary schools in Anohachia South Local Government Area selected for this research.

DISCLOSURE STATEMENT

No potential conflict of interest was reported by the authors.



REFERENCES

1. Salem, B.B. (2015). *Determinants of self-medication practices. World Journal of Pharmacy and Pharmaceutical Sciences, Vol.4, Issue 10, 138-154.*
2. Awosusi, A.O. and Konwea, P.E. (2015). *Self-medication Practice among Secondary School Students in Ekiti State, Southwest Nigeria. Journal of Advances in Medical and Pharmaceutical Sciences, 3(2): 61-68.*
3. Fainzang, S. (2013). *The other side of self-medicalization: self-medication and self-Medication, Culture Medical Psychiatry, 37(3):488-504.*
4. Fadare, J.O. and Tamuno, I. (2011). *Antibiotic self-medication among undergraduate in northern Nigeria. Journal of Public Health Epidemiology, 3(5):217-220.*
5. Gangopadhyay, S. (2012). *Motivation of self-medication: a behavioral analysis, International Journal of Management Research and Review, 2(13): 132-142.*
6. Kurma, R. and Sharma, S. (2015). *Knowledge, Attitude and Practice of Self-Medication among Medical Students. Journal of Nursing and Health Science, Vol. 4, Issue 1, pp. 89-96.*
7. Philip, P.T., Senan, A., Reji, S. and Kumar, T.R.A. (2015). *Assessment of self-medication practices among undergraduate medical and paramedical students: a case of rural medical schools of Tamil Nadu, India. World Journal of Pharmacy and Pharmaceutical Sciences, Vol. 4 Issue 10, pp.1587-1604.*
8. Bertoldi, A. Camargo, A., Telis, S.M., Menezes, A., Formoso, A.M., et al. (2014). *Are older women likely to use medicines than older men? Results from AHSP study, Caspian Journal of International Medicine, Spring, 5(2): 77-81.*
9. Almasdy, D. and Sharrif, A. (2011). *Self-medication practice with nonprescription medication among university students: a review of the literature, Archives of Pharmacy Practice, 2(3):95-100.*