



PRACTICE OF SELF MEDICATION AMONG PREGNANT WOMEN ATTENDING ANTENATAL CARE IN A HEALTH FACILITY IN ENUGU STATE, NIGERIA.

Chinelo Obi¹; Ifeyinwa Arize^{1,2}

1. Department of Health Administration & Management

College of Medicine

University of Nigeria, Enugu Campus

2. Health Policy Research Group (HPRG)

Department of Pharmacology & Therapeutics

College of Medicine

University of Nigeria Enugu Campus

Corresponding Author: Ifeyinwa.arize@unn.edu.ng

ABSTRACT

Background: The accessibility to various types of drugs and their indiscriminate use before, during, and after childbirth have become threats to the health of pregnant women and their fetuses. Many drugs are not meant to be taken by pregnant women but not many women are aware of the drugs that are dangerous to them and their unborn child. This study aimed to ascertain the prevalence and practice of self-medication among pregnant women that are attending ante-natal clinics.

Method: This study was carried out among pregnant women attending ante-natal clinic in Enugu State University of Science and Technology teaching hospital, Enugu. It was a descriptive cross-sectional study that involved distributing a structured questionnaire to 300 pregnant women attending ante-natal clinic in the hospital.

Result: The result showed the mean age of the respondents as 24.1(±1) years. The practice of self-medication turned out high with about 63% of the population practicing self-medication. The major reasons behind the practice of self-medication were affordability (31.6%) and

previous experience of treating a similar ailment (19.6%). The ailment that was majorly treated was cough (27.40) and malaria (27.05%) and the drugs mostly used were analgesics (34.4%), anti-malaria (19.1) and antibiotics (19.1%). The study showed that there was a high prevalence of self-medication among pregnant women attending ante-natal clinic in the hospital.

Conclusion: This study shows that there is a high prevalence of self-medication among pregnant women attending ante-natal clinic at ESUT teaching hospital, Enugu; despite the health education given to them during the ante-natal sections about the side effects. There is a need to continue creating awareness of the negative effects of self-medication, including reducing maternal and infant mortality.

KEYWORDS: Self-medication, Drugs, Pregnant women, Ante-natal clinic, Health facility

Introduction

Medication is directly related to the health of a community and its sustainable development (Mohammad, et al. 2013) and it is globally offered through health services (WHO 2016). Random and irregular use of these medications can lead to a whole lot of adverse effects (Mohammad, et al. 2013). Nigeria has the second-largest under five and maternal mortality rates in the world, with about 2,300 under-five children and 145 women of childbearing age lost daily (UNICEF 2013, Emmanuel, et al. 2014). Self-medication may not be a direct cause of maternal and child mortality but the consequences could lead to abortion and maybe death.

Self-medication can be defined as the use of drugs to treat disorders and symptoms that are self-diagnosed. It is also the irregular or continued use of a prescribed drug for chronic or recurrent disease or symptoms (Donkor, et al. 2012). It involves using medications without prior and proper medical consultation regarding the symptoms, dosage, as well as duration of treatment (Irvine, et al. 2010). The use of self-medication among pregnant women deserves great concern especially when we consider the availability of drugs over the counter, high rate of advertisement as well as the cultural relevance, availability, and affordability of traditional remedies in the case of herbal medicine. In the South-South region of the country, 72.4% of pregnant women attending ante-natal clinics practice self-medication (Abasiubong, et al. 2012), 63.8% of the pregnant women in Ibadan Nigeria practice self-medication (Yusuff and Omarusehe 2011) and 62.9% of the pregnant women attending ante-natal clinics practice self-medication in Jos-North (Joseph, et al. 2017). In Nigeria, the prevalence of self-medication in pregnancy is high. Despite the dreadful impacts of self-medication on pregnant women and their fetuses, there are very few programs set-up for the control of self-medication among these pregnant women (Abasiubong, et al. 2012).

According to Emmanuel et al (2014), pregnant women self-medicate because doctors are unavailable and for most of them, consulting a doctor is expensive so it becomes easier for them to ask non-professionals who have had certain illnesses the drugs they treated it with. They rely on their mothers, relatives and neighbors to guide them on which drugs to administer rather than going to the hospital. For some of them, consulting a doctor is time consuming because most of them are too busy to go through the rigorous process of seeing a doctor especially in public hospitals. Joseph et al (2017) in their study found that the major reasons behind self-medication were mostly because the respondents knew about the disease and how its treated, they had been treated previously for the same condition and because it was a minor ailment.

Shamsi et al (2010) in their study reported that pregnant women lacked knowledge about self-medication and thought that it was harmless to self-medicate and will continue to self-medicate because they had good results from it. Even among the educated women, there was still a high prevalence of self-medication and found a correlation between self-medication and education level (Mohammad, et al. 2013, Joseph, et al. 2017)

According to El Nimr et al (2015), 33% of the pregnant women in his study self medicated with an old prescription given to them at the hospital. They assumed that since the same symptoms they suffered in the past reoccurred, it must have been the same sickness. About 18% of his respondents reported to have self-medicated because they received advice and drugs from family members or friends especially older family members because they are seen as more experienced and therefore their prescriptions are always taken seriously usually because it is assumed that the prescription has worked for them over time. Friends and family play a key role as a source of drugs to self-medicate during pregnancy because they are always in contact with the pregnant woman (Oreagba, Oshikoya and Amachree 2011). 27% of the respondents said that they got the drugs from a pharmacist and didn't have to see a doctor. People always assume that any health worker can prescribe drugs for them. 20 % of the respondents reported that they self-medicated with the regular drugs in their house. While 2% of the respondents said that they got the information from the media (television, books and internet)

In view of the above, this study investigated the various reasons and factors underlying self-medication among pregnant women attending antenatal clinic in a teaching hospital in Enugu, Nigeria; disease conditions for which they usually self-medicate; the drugs usually used, the knowledge and attitudes of pregnant women regarding the potential negative effect of self-medication and reasons why they self-medicate. This information would give insight on the

current practice of self-medication and the angle to take in tackling this, thereby reducing the consequences of self-medication, which usually include abortion or even death.

Methods

Study design

This work is a descriptive cross-sectional study using a semi-structured questionnaire for data collection on 300 pregnant women attending ante-natal clinic.

Study area

This study was carried out at the ante-natal clinic of the Enugu State University Teaching Hospital, Parklane, Enugu. This hospital is a state-owned teaching hospital, located at the centre of the state.

Data collection

A self-administered semi-structured questionnaire was used for data collection, and were administered to pregnant women chosen randomly, through balloting. The questionnaire was made up of three sections: Section A (Socio-demographic characteristics), Section B (Reasons for self-medication, Diseases conditions treated with self-medicated drugs, Drugs most often used in self-medication, Source of information on drugs, Mode of requesting drugs), Section C (Knowledge regarding the side effects of self-medication).

Data analysis

Data were analyzed using SPSS version 20 and relevant data analysis such as frequency distribution and chi- square test were used in the analysis.

Ethical consideration

Ethical clearance was obtained from the ethical review board of Enugu state teaching hospital, Parklane, Enugu, where this study was carried out. Verbal consent was obtained from the participants before the interview. Participation was voluntary and confidentiality was maintained.

Results

SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTICS

The mean age of the respondents was 24.1(\pm 1.5) years; the youngest was 15years old and the oldest was 44years old. More than half of the respondents (69%) were in a tertiary institution or were graduates while 87% of the respondents were Christians. A total of 65.5% of the respondents were married while 55% of the respondents were employed. Most of the respondents were in their second trimester of pregnancy.

TABLE 1: Demographic Characteristics of the Respondents

	Frequency	Percentage	Range	M ₊ SD
Age				24.1 +1.
15-19	30	10		
20-24	92	32		
25-29	101	35		
30-34	45	16		
35-39	15	5		
40-44	7	2		
Religion				
Christian	251	87		
Islam	21	7		
Traditionalist	10	3		
Others	8	3		
Level of Education				
No formal education	19	6.5		
Primary	25	8.6		
Junior secondary	20	6.9		
Senior secondary	26	9.0		
Tertiary	200	69.0		
Marital Status				
Single	74	25.5		
Married	190	65.5		
Divorced	16	5.5		
Separated	8	2.8		
	2	0.7		
Employment Status				
Unemployment	67	23		
Self-employed	89	31		
Government employed	69	24		
Student	65	22		
Duration of pregnancy				
First trimester	86	30		
Second trimester	140	47		
Third trimester	64	23		

Number of children

One	81	28
Two	88	30
Three	66	23
Four	18	6
Other	37	13

SECTION B: THE PRACTICE OF SELF MEDICATION.

Table 2 shows that majority of the respondents practiced self-medication.

TABLE 2: The prevalence of self-medication

Options	Responses	Percentage [%]
Yes	183	63
No	107	37
Total	290	100

TABLE 3: Responses on reasons for self-medicating

Table 3 shows that out of 285 responses to the reasons behind the practice of self-medication, 90[31.6%] stated that their reason for self-medicating was affordability. Another major reason was the previous experience of treating a similar ailment followed closely by minor ailment.

Options	Responses	Percentage [%]
It is more affordable	90	31.6
I had a previous experience of treating a similar ailment	56	19.6
It was a minor ailment	55	19.3
It was for the purpose of prevention	38	13.3
The doctor wasn't readily available	22	7.7
The disease kept reoccurring	23	8.1
Others	1	0.4
Total	285	100

Table 4 shows that 81.16% of the diseases/symptoms that make pregnant women self-medicate were malaria, headache and cough.

TABLE 4: Responses on the diseases/symptoms that usually cause self-medication

Options	Responses	Percentage [%]
Malaria	79	27.05

Cough	80	27.40
Catarrh	19	6.51
Headache	78	26.71
Body pains	24	8.22
Gastrointestinal problem	8	2.74
Depression	3	1.03
Others (Specify)	1	0.34
Total	292	100

Table 5 shows that analgesics were the major medication most respondents used for self-medication. Anti-malaria and antibiotics followed closely at 19.1% each.

TABLE 5: Responses of pregnant women on drugs used for self-medication

Options	Responses	Percentage [%]
Antibiotics	91	19.1
Analgesics	164	34.4
Multi-vitamins	28	5.9
Cough syrup	39	8.2
Anti-malaria	91	19.1
Herbal medicine	15	3.1
Anti-depressant	3	0.6
Mineral supplement	31	6.5
Sleeping pill	6	1.3
Others(antacid)	9	1.9
Total	477	100

Table 6 shows that 79.2% of the respondents were aware that self-medication can affect/harm a pregnant women.

TABLE 6: Awareness of the side-effects of self-medication practice on the pregnant woman

Options	Responses	Percentage [%]
Yes	198	79.2
No	52	20.8
Total	250	100

.DISCUSSION

From the study, the prevalence of self-medication among pregnant women is was 65%. This study showed that the practice of self-medication was high and may be a common practice among pregnant women. Despite the fact that most of the respondents that took part in this study were really mature in terms of their age, there was still a high prevalence of self-medication. This study aligns with a study done in Jos, Nigeria, which showed that 63.8% of the pregnant women attending antenatal clinic self-medicated (Joseph, et al. 2017). This is also in line with another study done by Emmanuel et al (2014) which showed that 85% of the respondents self-medicated. This implies that self-medication could be a common practice in Nigeria. However, this study does not align correspond with a study done in Iran (Mohammad, et al. 2013) which showed that 35% of the respondents self-medicated, hence it may not be an issue with developing countries.

From this study, respondents self-medicate because they feel it is more affordable, has previous experience with the prescription of the ailment, and also because they feel the ailment is minor. This is consistent with findings of a study done in Jos by Emmanuel et al in 2014. It is also consistent with another study done in Jos north which showed cost-effectiveness as the least reason why pregnant women self-medicate (Joseph, et al. 2017). Another study conducted in Osogbo, Nigeria showed that poverty could be considered a major factor for the engagement in self-medication because the majority of those that participated in the study saw it as being economical to self-medicate (Kolade, Tijani and Adeniran 2016). This is mostly because they tend to avoid paying for consultation and any other necessary investigations required, which implies that affordability of care may impact self-medication.

Cough, malaria and headache were the major ailments that led to self-medication among the pregnant women. The findings also showed that they also self-medicated as a result of catarrh, body pains, gastrointestinal problem and depression. This could be on basis that they did not consider these ailments serious enough to require visiting a health facility. Our findings in terms of ailments are consistent with a study done by Yussuf (2011) which showed that cough, headache, body pains, gastrointestinal problems were some of the common ailments for self-medication. This is was also seen in a study by Emmanuel et al (2014) which showed headache and malaria as well as cold and cough as the major reasons for self-medication while the other reasons were gastrointestinal disorders, infections, wounds, and piles. There is a need for continuous health education of the public as Malaria is one of the killer diseases in Africa and

with the emergence of COVID-19 some of these ailments that people easily self-medicate should not be trivialized as they are symptoms of corona virus.

The major drugs used by the respondents to treat these ailments were analgesics, antibiotics, antimalarial, and cough syrups. The other drugs identified from the study were mineral supplements, antacids, herbal medicine, multivitamins as well as sleeping pills. This study is in consonance with a study in Jos (Emmanuel et al., 2014) which showed that the majority of the respondents used analgesics, anti-malaria, antibiotics, and herbal remedies. It is also similar to findings from a study conducted in Ethiopia which showed that the commonly used drugs for self-medication to be analgesics and antibiotics. It also included asthma medications (Mohammed, et al. 2013). Another study conducted in Egypt (2015) identified cough and common cold drugs antibiotics and analgesics; since they have little to no prevalence of malaria (El-Nimr, et al. 2015). In order to help reduce the incidence of antibiotics resistance that is a global threat, there is a need to regulate the accessibility of prescription drugs over the counter. The responses in this study showed that the respondents mainly used orthodox medicine which is in contrast with the study done by Joseph et al (2017) in Jos which showed that 67.5% of women attending ante-natal clinics were self-medicating with herbal medicine.

In terms of sources of information for self-medication, most of the respondents in this study found out about the drugs used for self-medication through advertisements, family and friends; former prescriptions. This is consistent with the study carried out in Ethiopia by El-Nimr (2015) which showed great number of people self-medicating from former prescription (33%) because of the reoccurrence in the previous symptoms; mostly because they think it was the same illness. Furthermore, about 18% self-medicated following advice from family and friends. It shows the need for pregnant women to be well enlightened on the need for proper diagnosis before taking any medications. This would also help them to know that a reoccurrence in symptoms does not necessarily mean the existence of an ailment formerly experienced and should not be regarded as unserious either. Health Education on self-medication is essential during ante-natal visits.

Although, 79.2% of the respondents were aware of the side effects of self-medication, more than 50% of those that were aware of the side effects of self-medication still practice self-medication while pregnant. Awareness of the side-effects of self-medication did not have anything to do with their level of education because most of the respondents were educated to the tertiary level. This could be compared to a study done in Jos-North, Nigeria, which showed that the practice of self-medication increased with the level of education (Joseph, et al. 2017). It was also consistent

with a study done in Indonesia which shows the level of awareness on the possible risks of self-medication was significant among women with high school and higher education (Atmadani, et al. 2020). The implication of this is that there is a need for more counseling and improved behavioural change communication strategies for pregnant women during antenatal visits to reduce this trend.

Study limitation

This study was restricted to pregnant women attending antenatal clinic in only one hospital that is in an urban area; therefore, it cannot be generalized for all pregnant women in the state.

Conclusion

This study shows that there is a high prevalence of self-medication among pregnant women attending ante-natal clinic at ESUT teaching hospital, Enugu; despite the health education given to them during the ante-natal sections about the side effects. This is evident in the fact that more than half of the women that practice self-medication are aware that it has negative effects. The control of self-medication among pregnant women could help reduce the incidence of maternal mortality and infant mortality as well as congenital malformation/ birth defect defects related to the misuse of drugs. Some of these pregnant women do not know where to draw the line while using certain drugs for self-medication because they do not know how harmful some of these drugs can be to them and their foetuses.

Recommendation

Pregnant women should have restricted access to prescription drugs because it was seen that many of the respondents in this study could easily purchase prescription drugs using old prescriptions.

Health education on self-medication should be communicated during ante-natal visits.

References

- Abasiubong, F, E.A Bassey, J.A Udobang, O.S Akinbami, S.B Udo, and A.U. Idung. 2012. "Self-medication: Potential risks and hazards among women in Uyo, Nigeria." *Pan African Medical Journal*, 13, 15.
- Atmadani, R.N., O Nkoka, S.L Yunita, and Y Chen. 2020. "Self-medication and knowledge among pregnant women attending primary healthcare services in Malang, Indonesia: a cross-sectional study." *BMC Pregnancy Childbirth*, 20, 42. <https://doi.org/10.1186/s12884-020-2736-2>.

- Donkor, E.S., P. B Tetteh-Quarcoo, P. Nartey, and I. O Agyeman. 2012. "Self medication practices with antibiotics among tertiary level students in Accra, Ghana: a cross-sectional study. ." *International Journal of Environmental Research and Public Health* 3519-3529.
- El-Nimr, N.A, I.M.H Wahdan, A.M.H Wahdan, and R.E Kotb. 2015. "Self-medication with drugs and complementary and alternative medicines in Alexandria, Egypt: prevalence, patterns and determinants. ." *Eastern Mediterranean Health Journal*, 21 (4).
- Emmanuel, A., G Achema, B.B Afoi, and K.R Maroof. 2014. "Self medication practice among pregnant women attending antenatal clinic in selected hospitals in Jos, Nigeria." *Standard Research Journal of Nursing and Midwifery* 046-051.
- Irvine, L, RW Flynn, G Libby, IK Crombie, and JM. Evans. 2010. "Drugs dispensed in primary care during pregnancy: A record-linkage analysis in Tayside, Scotland. ." *Drug Safety* 33(7) 593-604.
- Joseph, B.N, I J Ezie, B M Aya, and M L P Dapar. 2017. "Self-medication among Pregnant Women Attending Ante-natal Clinics in Jos-North, Nigeria." *International Journal of tropical disease and health* 21(1) 28-48.
- Kolade, A., A. Tijani, and D.A. Adeniran. 2016. "Kolade, A., Tijani, A., & Adeniran, D.A. (2016). SELF MEDICATION PRACTICES AMONG PREGNANT WOMEN ATTE NDING THE STATE HOSPITAL , OSOGBO NIGERIA." *Semantic Scholar* <https://www.semanticscholar.org/paper/SELF-MEDICATION-PRACTICES-AMONG-PREGNANT-WOMEN-ATTE-Kolade-Tijani/a2ec1303c55554f92c2f39dec8b898746537630d>.
- Mohammad, H.B, B Shahnaz, B Maleknaz, Yousefi, N., and R Zolghadr. 2013. "Attitude and practice of pregnant women regarding self- medication in Yazd, Iran. Archives of Iranian medicine." *Archives of Iranian medicine*; 16(10), 580-593.
- Mohammed, Adem, Hussein Ahmed Jeramal, Workicho Bushra Abdulhalik, and S. Aljadhey Hisham. 2013. "Medications use among pregnant women in Ethiopia: A cross sectional study." *Journal of Applied Pharmaceutical Science*, 3(4), 116-123.
- Oreagba, I. A., K. A Oshikoya, and M. Amachree. 2011. " Herbal medicine use among residents in Lagos, Nigeria. ." *BMC Complementary and Alternative Medicine*, 11 (117), 1-8.
- Shamsi, S, A Arzi, Sawalha, and A Ashtarimezad. 2010. "Antibiotics Self-Medication among Southern Iranian University Students. ." *International Journal on Pharmacology*, 6, 48-52. 48 -52.
- UNICEF. 2013. *Situation of women and children in Nigeria: Challenges faced by women and children in Nigeria* . <https://www.unicef.org/nigeria/situation-women-and-children-nigeria>: UNICEF.
- WHO. 2016. *Medication Errors: Technical Series on Safer Primary Care*. . Geneva: World Health Organization.
- Yusuff, K.B, and L.-D., Omarusehe. 2011. " Determinants of self medication practices among pregnant women in Ibadan, Nigeria." *International Journal of Clinical Pharmacy*, 33(5), 868-875.