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USE OF DRUGS WITHOUT DOCTOR'S PRESCRIPTION AMONG PREGNANT WOMEN ATTENDING ANTENATAL CARE CLINICS IN PORT HARCOURT, NIGERIA

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ABSTRACT

Background: *Pregnancy is associated with the production of hormones and other chemical substances that change the physiology and biochemistry of the woman and can lead to the use of drugs with or without doctors' prescriptions. This study, therefore, aimed to determine the pattern and prevalence of self-medication among pregnant women attending clinics at tertiary hospitals in Port Harcourt.*

Methods: *A facility-based cross-sectional study was conducted at two tertiary hospitals in Port Harcourt between January and February 2022, from which among 413 pregnant women were interviewed at the antenatal care (ANC) clinics. A descriptive analysis method was used to analyze the data.*

Results: *Among the 413 women interviewed 128 (31%) had used drugs without doctors' prescription. The common drugs used were Paracetamol (50%), Antimalaria (31.3%), Antibiotics (16.4%), Cough and Cold drugs (13.3%) and Herbal products (11.7%). The reason for self-medication includes emergency illness, high cost at health facilities and distance to the facility. The common illness/symptoms that necessitated self-medication are body pain, headache, and fever.*

Conclusion: *Considerable proportion of the study sample used drugs without prescription. To improve on fetal and maternal health, we recommend enhanced healthcare accessibility and coverage, and awareness creation on the rational use of drugs by pregnant women.*

Keywords: *Drugs, Doctor's Prescription, Pregnant Women, Antenatal Care, Self-medication.*

INTRODUCTION

Pregnancy is associated with the production of hormones and other chemical substances that change the physiology and biochemistry of the woman, these changes also affect the metabolism of drugs during pregnancy.[1] Medication taken during pregnancy can cross the placenta and affect the developing fetus.[2] The effects of medications on a fetus depend on the trimester of the pregnancy. Medications taken during organogenesis are more likely to cause congenital abnormalities and most medications should be avoided during this period.[1,2] It is therefore important to evaluate the risk level of medications given during pregnancy. Category A and B drugs have no risk in pregnancy, category C drugs are only given when the benefit outweighs the risk, and category D drugs should be avoided.[3]

Self-medication is the use of drugs for the treatment or prevention of self-diagnosed ailments without the prescription or advice of a physician or intermittent/continued use of drugs previously prescribed by a physician for chronic or recurrent ailments.[4] Self-medication may reduce the burden on the healthcare system and save time and cost for the patient however, it can also lead to severe health complications.[5,6] Self-medication in pregnancy is can lead to miscarriage, congenital abnormalities, perinatal morbidity and mortality, maternal morbidities and mortalities.[7]

Despite the obvious dangers of self-medication in pregnancy, it is a common practice in our environment. A systematic review and meta-analysis on self-medication in pregnancy in sub-Saharan Africa gave a prevalence of 78%,[8] which is higher than the global prevalence of 32%.[9] A Study in Jos reported that 62.9% of pregnant women practice self-medication.[10] The practice of self-medication in our environment is not restricted to orthodox medications. Herbal medications are commonly used by pregnant women in our environment. In a study in Ibadan, 31.2% of women practiced self-medication with local herbs.[11]

The practice of self-medication among pregnant women in our environment endangers the life of the woman and her baby and therefore, limits our achievement of safe motherhood and sustainable development goal. An understanding of the practice of self-

medication in pregnancy in our environment will help create local policies and reforms aimed at reducing self-medication in pregnancy and improving maternal health outcomes. This study aimed to determine the pattern and prevalence of self-medication among pregnant women attending clinics at tertiary hospitals in Port Harcourt.

METHODS

Study Design and Participants

This study utilized a facility-based cross-sectional study design to elicit information from all pregnant women who attended antenatal care (ANC) clinic at the University of Port Harcourt Teaching Hospital (UPTH) and Rivers State University Teaching Hospital both in Port Harcourt between January and February 2022. The minimum size of 384 was calculated using the Cochran formula for cross-sectional studies at 95% confidence level and 5% error margin, and 50% prevalence. The sample size was purposively divided into two between the two facilities. A systematic sampling method was employed to select the respondents using the daily register. The study excludes all pregnant women attending these facilities within the period who were not able to hear or speak, any form of mental disorder, and mothers who refused to give information about the use of drugs during pregnancy.

Data Collection Instrument and Procedures

The instrument used to collect data from participants was semi-structured questionnaire developed by the researcher team based on previous studies.[12,13]. To test the validity and reliability of the questionnaire, a pretested was conducted with ten pregnant women. The questionnaire was divided into two parts: biodemographic and used of drugs during pregnancy without doctor's prescriptions related questions. The biodemographic part includes variables such as, age, marital status, religion, educational level, occupation, income, history of abortion/miscarriage, gravidity, and gestational age.

Methods of Analysis

The data were analyzed using descriptive statistics. The frequencies, percentages and charts were used to present the categorical variables; mean and standard deviation were used to present continuous variables. All analyses were done with STATA version 15 (Stata Corp, College Station, TX, USA).

RESULTS

The study was done among 413 pregnant women attending the antenatal clinic in Rivers State (220 women from UPTH and 193 women from RSUTH). The mean age of the study population was 29.7 (±5.6) years. Most of the women (89.6%) were married, 66.8% had a secondary level of education, and 96.6% were Christians. About a third (28.9%) were unemployed and only 21.6% made a monthly income of >$200. Almost half were pregnant for the first time (47.5%) and 50.1% had gestational ages of >26weeks. The mean gestational age of the study population was 26.2 (±17.0) weeks. Mores, 31% used or reused drugs during the current pregnancy without doctor's prescriptions. More details are in Table 1.

Table 1: Characteristics of the study population

		Total (n=413)	%
Facility	UPTH	220	53.3
	RSUTH	193	46.7
Age (years)	<25	65	16.2
	25-34	264	65.7
	≥35	73	18.2
Marital Status	Not Married	43	10.4
	Married	370	89.6
Educational Level	≤ Secondary	137	33.2
	>Secondary	276	66.8
Religion	Christianity	399	96.6
	Islam	14	3.4
Employment Status	Unemployed	118	28.9
	Employed	291	71.1
Income (Dollars per month)	<100	219	58.4
	100-200	75	20.0
	>200	81	21.6
Gravidity	1	196	47.5
	2-4	185	44.8
	≥5	32	7.7

Gestation Age (Weeks)	<14 weeks	42	10.4
	14-26 weeks	160	39.5
	>26 weeks	203	50.1
Used drugs without Doctor's Prescription	No	285	69.0
	Yes	128	31.0

The common drugs taken during pregnancy among the study participants were paracetamol (50.0%), antimalarial (31.3%), antibiotics (16.4%), cough and cold medications (13.3%), and herbal products (11.7%). More details in Table 2. The reasons for self-medication were emergency illnesses (48.8%) and the high cost of medications at the health facility (18.1%), distance to health facility (15%) and Delays in the hospital (9%). See Table 3.

Table 2: Drugs used during pregnancy without medical prescription

Drugs	N	%
Paracetamol	64	50.0
Antibiotics	21	16.4
Antimalarial drugs	40	31.3
Herbal products	15	11.7
Cough and cold drugs	17	13.3
Worm expeller	4	3.1
Antiasthma	1	0.8
Antihypertensive	4	3.1
Others	4	3.1

Table 3: Reasons for using drugs without medical prescription during pregnancy

Reason	N	%
Distance to the health facility	19	15.0
Emergency illness	62	48.8
High cost at health facilities	23	18.1

Delaying of the Hospital services	9	7.0
No medicine in the health facilities	1	0.8
Proximity of the pharmacy to home place	7	5.5
Spiritual attacks	3	2.4
Others	3	2.4

The medications taken by the respondents were self-prescribed in 39.1%. Other sources of prescription were by a pharmacy worker, a friend, and medical personnel (Figures 1). More than half of the women (65.6%) got their medication from a pharmacy. Other sources of drugs used for self-medication are patent medicine vendors, herbalists, hawkers, and other outlets. Figure 2 shows the place of purchase of drugs used for self-medication in pregnancy.

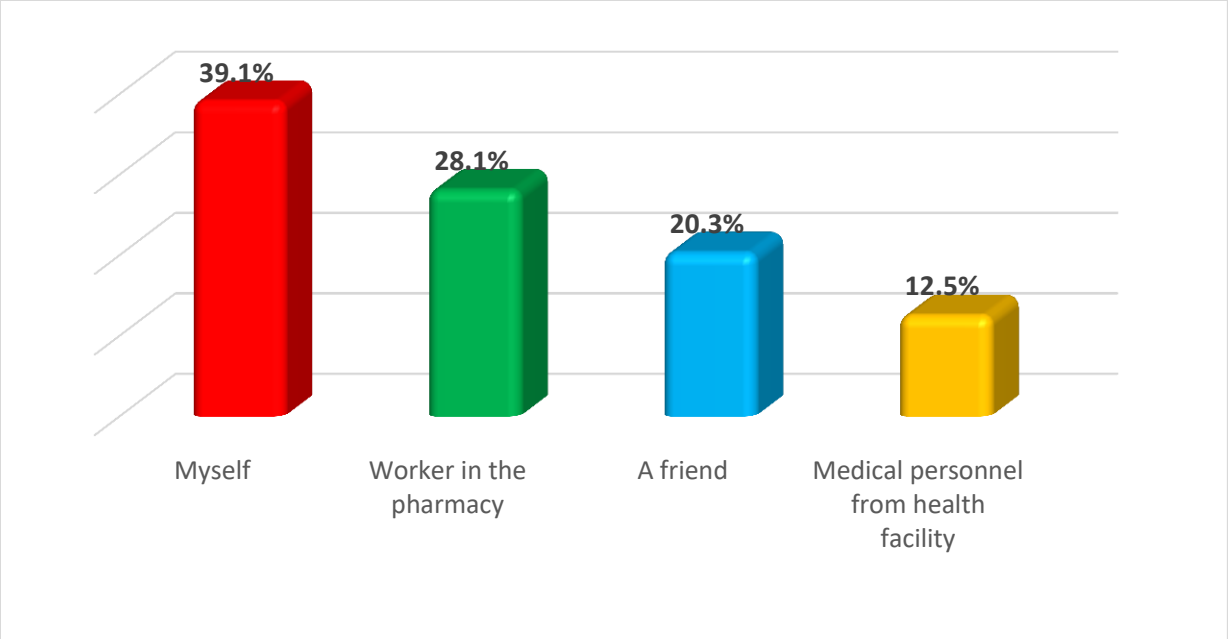

Figure 1: Prescriber of drugs used to Self-medicate among Pregnant Women attending Clinic

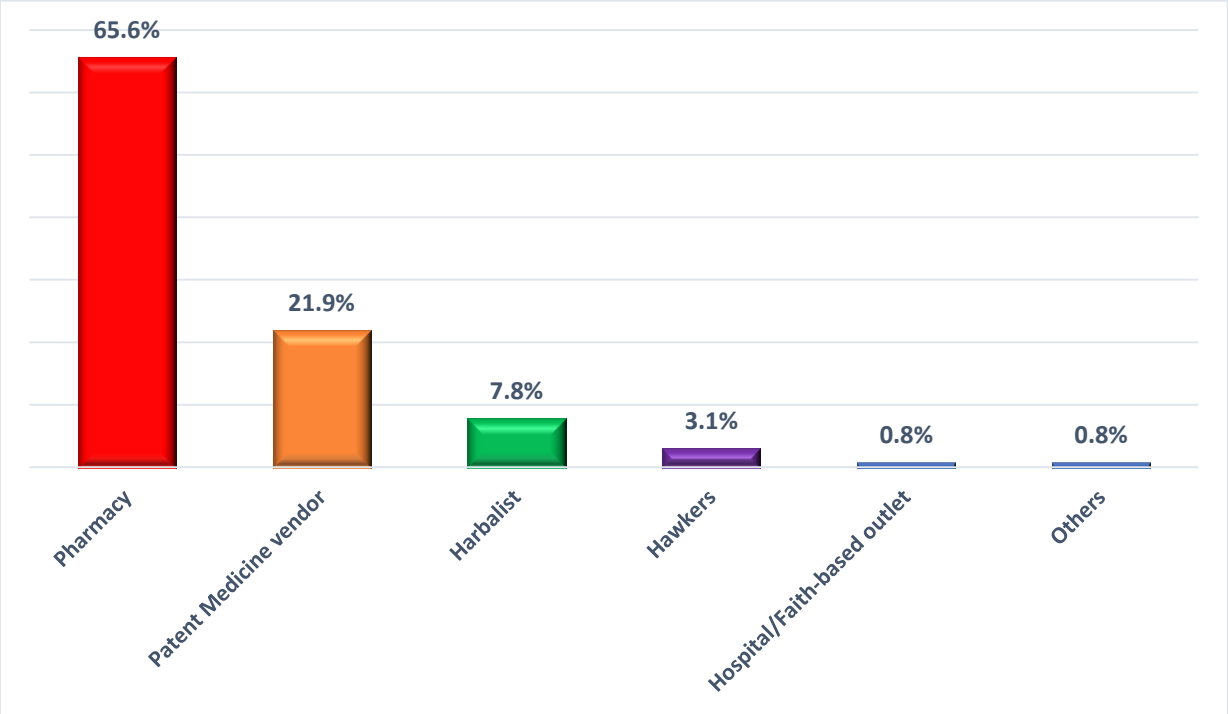

Figure 2: Place of Purchase of Drugs by Pregnant Women for Self-medication

The common symptoms that prompted self-medication among the respondents were body pains (44.9%), headache (43.3%), fever (37.0%), and cold (25.2%), other symptoms are listed in Table 4. Many of the women (77%) had relief of symptoms after practicing self-medication (figure 3).

Table IV: symptoms that prompted self-medication among pregnant women

S/N	Illness	N (%)
1	Body itches	3 (2.4)
2	Body pains	57 (44.9)
3	Body weakness	14 (11.0)
4	Cold	32 (25.2)
5	Cough	18 (14.2)
6	Diarrhoea	4 (3.1)
7	Dizziness	1 (0.8)

8	Eczema	5 (3.9)
9	Fever	47 (37.0)
10	Heartburn	2 (1.6)
11	Headache	55 (43.3)
12	Inability to sleep	5 (3.9)
13	Nausea	6 (4.7)
14	Vaginal bleeding	1 (0.8)
15	Vaginal discharge	11 (8.7)
16	Vomiting	7 (5.5)
17	The yellowness of the eyes	2 (1.6)
18	Others	2 (1.6)

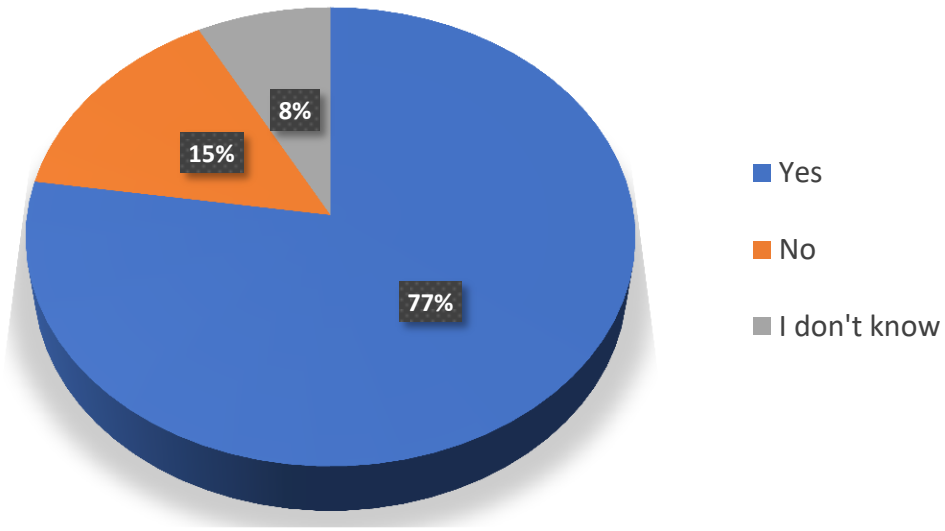

Figure 3: Relieved of the symptoms after self-medication

Discussion

The practice of self-medication during pregnancy in our environment puts the life of pregnant women at risk and prevents the achievement of Sustainable Development Goal number three: all nations of the world

should reduce maternal death to a minimum by the year 2030.[14] An understanding of the prevalence and practice of self-medication in Port Harcourt will provide information on how to reduce self-medication in pregnancy and improve maternal health.

The prevalence of self-medication in pregnancy in this study was 31.0% which is similar to the global prevalence of 32%,[9] but much lower than the prevalence of 78% in Sub-Saharan Africa.[8] and a prevalence of 65.4% in Ghana.[15] Studies in Jos (North-central Nigeria), Ibadan (South-western Nigeria), and Uyo (Southern Nigeria) have all shown a higher prevalence of self-medication in pregnancy.[10,11,16] The in prevalence may due to sociocultural differences among the study populations. Secondly, these studies were all done more than five years ago and enlightenment over the years may have reduced the practice of self-medication in pregnancy.

Paracetamol is the most common medication taken by women who practiced self-medication during pregnancy. Other studies have also reported paracetamol as the most common medication taken in self-medication in pregnancy.[11] This is probably because general body pains, joint pain, and waist pain are common complaints in pregnancy. Antimalarial drugs were also commonly taken during pregnancy in this study. A combination of paracetamol and antimalarial may be taken because most women may have malaise, fever, and headache which are common symptoms suggestive of malaria. Antibiotics were the third most common medication taken by these women to relieve symptoms of cough, fever, diarrhea, and vaginal discharge. Although their symptoms are non-specific for a particular illness and therefore do not confirm any diagnosis, 77% of respondents had relief from their symptoms after they practiced self-medication.

The common reasons for self-medication in pregnancy in this study were the high cost of medications at the health facilities, distance to the health facility, delay at the health facility, and unavailability of medications at the health facility. These are similar reasons why pregnant women practice self-medication in pregnancy in other studies in Nigeria and other Sub-Saharan African countries.[11] Some also practiced self-medication during pregnancy because the pharmacy was close to their residence and was convenient for them.[15]

Most pregnant women in this study made a self-diagnosis and self-prescription and got the medication from a pharmacy or a patent medicine store. This finding is like a study in

Ibadan where 55% of women made self-diagnosis and self-prescription.[11] Some women visited a pharmacy where pharmacy personnel made prescriptions for them. Other sources of drug prescription were a health worker in the hospital and family and friends.

Herbal medication was taken by 11.7% of pregnant women in this study. This is lower than a study which reported that 45.9% of pregnant women in Ghana took herbal medication.[15] This is worrisome because the compositions of these herbal medications are unknown, the dosages are non-specific, and the same medication is prescribed for several illnesses. Most herbal medications are alcohol based and put the fetus at risk of congenital anomalies such as fetal alcohol syndrome.[17] This practice of taking herbal medicines during pregnancy in our environment may be due to cultural influence, traditional beliefs, cost, availability, and convenience. Herbal medications are very cheap and sold by herbalists along the street in our environment. They also advertised on the radio, television, newspapers, posters, and social media. There is no proper regulation on how they are sold. In addition, some women don't believe that orthodox medications alone.[15] In our study 2.4% of women who practiced self-medication did so because they believe they had spiritual attacks.

Although the prevalence of self-medication in pregnancy in this study is lower compared to other studies in Nigeria, the used of herbal medication among pregnant women is of great concern. This practice threatens the improvement of our maternal and fetal health outcome in Port Harcourt. To this prevent self-medication in pregnancy, efforts should be made to enforce and regulate drug prescription and sales of drugs. The sale and advertise of herbal medication should be regulated. More health facilities should be provided for easy access to care and hospital service delivery should be effective to prevent delays experienced in the hospital. Finally, education of pregnant women on the dangers of self-medication should be done on all media platforms.

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