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Use of Un-Prescribed Drugs and Traditional Medications among Pregnant Women Attending Primary Health Centres in Kano, Nigeria

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Abstract

The use and misuse of drugs in Sub Saharan region are of public health concern. Exposures to un-prescribed drugs and traditional medications are frequent and create a great danger in pregnant women. The use of herbal medicines has been on the increase in many developing and industrialized countries. The study examined the use of traditional medications and un-prescribed orthodox medicines for gestational mothers. A descriptive cross-sectional design & inferential statistic were employed for the study and a total sample of one hundred and ninety-six was used. A standardized data collection form was employed based on the World Health Organization criteria and the obtained data were analyzed using SPSS Version 22.The result showed that most of the respondents were between the age of 22- 27 years with the mean age of 24 years and majority of the respondents (63.3%) used both un-prescribed drugs and traditional medicines during pregnancy, while 27.0% used only un-prescribed drugs and 9.7% use only traditional medications. More so, the results revealed that pain killers' drug were the leading cause for misused. Also, the results demonstrated a significant relationship between respondent's awareness of harm associated with use of un-prescribed medications and educational status, (P < 0.01). The study concluded a wide spread use of un-prescribed drugs and traditional medications among pregnant women and therefore, recommend the need for health education and massive campaign with community involvement against the wrong practices by both the healthcare practioners and the government.

Keywords: *un-prescribed drug, traditional drugs, pregnant woman, medicines.*

Introduction

Pregnancy is a stressful condition that needs cautious management to ensure the safety of both the mother and fetus [1]. Drugs are taken with caution during pregnancy, because some drugs can cross the placenta and cause effect on the fetus [2]. Like loss of organ function, abnormal or absent of organ development, abortion and still birth [3]. Multiple drug use occurs 33.5% of patients, with up to 13.6% consuming four or more medication [3].

The effect of a drug upon the offspring will depend upon the dose absorbed by the mother and the period of gestation of which it is taken [4]. Some certain factors are considered before administering drugs to a pregnant woman which include gestational age of the pregnancy, severity of the maternal condition, physiological changes during pregnancy, side effect and allergic reaction [5]. In as much as possible drugs should be avoided during the first trimester [6&5]. After first trimester most fetal organs are fully differentiated and there after drugs taken by the mother cannot have a teratogenic effect on the embryo, they will however, pass the placenta and may cause the injury to the fetal organs from all what has been said above [7&2]. It is obvious that the use of un-prescribed drugs and traditional medication during pregnancy is highly risky to both the mother and the fetus [8]. In developing countries, most illnesses are treated using un-prescribed drugs [9].

A major shortfall of the use of un-prescribed drugs is the lack of clinical evaluation of the condition by a trained medical professional which could result in missed diagnosis and delays in appropriate treatment [10]. Drugs used in self- medication are usually selected by consumers for symptoms that they regard as troublesome to require any drug therapy but not

to justify the consultation of a prescribing physician [11].

Millions of people use drugs daily throughout the world and several thousands are dependent on some drugs for daily activities because of psychosocial reasons [11]. Internationally there has been a shift towards self-medication through over the counter release of many prescriptions of category of drugs and wider acceptance and use of complementary and alternative medicines. The general community perceives that these preparations are safe and this may lead to inappropriate use of drugs, a range of over the counter release of many prescriptions of category of drugs [12]. The general community perceives that these preparations are safe and this may lead to in appropriate use especially during pregnancy. Pregnant women use a range of over the counter preparations including analgesic, antihistamines, antacids, antiemetic and a variety of herbal preparation [12]. However, limited information exists on the effects of many of these agents during pregnancy (13). The basic principles utilized in deciding whether to employ orthodox medication, embryological that has potential toxic effects on the fetus also apply to herbal medicines and over the counter preparations [14]. Conventional reasoning indicates that maternal exposure to poorly studied medications should be limited [15]. Therefore, many of these agents should be used sparingly or not at all by pregnant women [16]. Orthodox medicine is radically taking over traditional medicine in the African society, as such there has been a rapid increase in the use of drugs for medicinal purposes in the early 20thcentury [17]. Despite the dangers associated with indiscriminate drug use, the culture continues to spread partly due to illiteracy and partly economics purposes [18]. The attitudes of the public lead to the concept of over the counter drugs that are safe and purchased directly without prescription. It is however difficult to enforce some of this law because of the nature of our society [19]. Drugs misuse will continue to effects our society, until the economic status of the people is improved and level of literacy and public awareness on drugs is increased [20].

The use of herbal medicines has been increased in many developing and industrialized countries; it was known that between 65% and 80% of the world's population use herbal medicines as their sources of health care [21]. Patient who are likely to be at risk from adverse effect of herbal medicines include those who are already prone to difficulties from regularly prescribed medication namely, fetus, infants and older children, the elderly, as well as pregnant and lactating mothers [22&23]. In developing nation more especially, regulations of sales importation and manufacturing of herbal medication are not subject to scrutiny in terms of safety and efficacy as is the case for conventional western allopathic medicine [23&24]. According to a report "more than 60% of the pregnant women in Africa reported the use of herbal medicines [24&25]". A report found that "many more than 96% of all pregnant women report taking all kind of medications during pregnancy [25]". It was found in a study that "fifty-six (56%) of pregnant women are on un-prescribed drugs 44% are on prescribed medication that have either positive evidence of human fetal risk or a risk of drug use out weighing a possible benefit [25&24]". Despite the fact that knowledge of potential side effect of many herbal medicines in pregnancy is limited and that some herbal products may be teratogenic in human and animal models [26].

In a related study it was reported that "(96.95%) of respondents took at least one medication during their pregnancy & after excluding prenatal vitamins and iron supplement, 76.5% took at least one other medication. 62.8% used un-prescribed medication and 4.1% used herbal and /or alternative remedies [26&2]. It was reported that (31.4%) of pregnant women used herbal medicines in the subsisting pregnancy & over (40%) of respondents had at least primary education while nearly 30% had an income of less than 20,000 naira (130 USD) monthly [26]. There was limited data on the use of herbal medicine by pregnant women in Nigeria. This study was aimed to assess the prevalence of use, socio-demographic pattern, knowledge and attitude of pregnant women to the use of un-prescribed drugs & herbal medicine among those attending the antenatal clinic in health centers of Kano municipal & Kumbotso local government's area.

Methodology

Study Design and Instrument

The study employed a descriptive cross-sectional survey. The instrument used for this

study was an interviewer administered questionnaire that was adapted and modified. The research instrument was composed of closed ended questions designed to obtained information. The questionnaire has 4 sections: section (A) on socio-demographic characteristics, section (B) on common method of treatment used among pregnant women attending antenatal clinic, section (C) on reasons of pregnant women for indulging in the use of un-prescribed drugs & traditional medicines, section (D) on level of awareness of harm associated with the use of un-prescribed drugs & traditional medication during pregnancy. Two hundred and fifty copies of questionnaire were administered which were interpreted in local language (Hausa), only one hundred and ninety-six were responded to. To ensure validity of the research instrument was given to the research supervisors and other scholars in the field of study to validate by face and content method. While the reliability of the research instrument was tested by test and re-test reliability method with coefficient of stability of (r) = 0.76 approximately 0.8.

Study Area

This study was conducted in Kano Metropolis, Kano State North western Nigeria. The state is the commercial center of Northern Nigeria and is the second largest city in Nigeria after Lagos. Kano is the most populous state in Nigeria, with about 9, 401, 288 million people [27]. Kano urban area/metropolitan covers 499km2 and comprises of eight local government areas (LGAs), which are: Kano Municipal, Fagge, Dala, Gwale, Tarauni; Nassarawa, Kumbotso & Ungogo with a population of 2,826,257 [27].

Kano metropolis was chosen as the study area as a result of high prevalence of pregnancy related death as reported recently by agencies concerned.

Study population

This comprises of pregnant women attending primary health care centers in Kano Municipal & Kumbotso local government area of Kano State, Nigeria. The distance between Kano municipal & kumbotso is about 35km, to avoid contamination of subjects.

Sample Size Determination

A sample size of 196 was obtained by utilizing the Kirkwood formula for determining sample size $n=z^2p\ (1-p)/e^2$ (Kirkwood, 2003). Where n = the acquired minimum sample size, e= margin of error (5%) = 0.05, p= prevalence, z= standard normal deviation corresponding to 95% confidence level. = 1.96. The sample size was increased by 5% to 206 to control attrition.

Sample Techniques

A multistage probability sampling technique was used to select two local governments out of eight local government of Kano state metropolitan; the selected local governments were Kano municipal & Kumbotso local governments. These local governments have ten health care centers; as such simple random sampling was used in selecting six health care centers, three from each local government; while convenience non-probability sampling technique was used in selecting respondents.

Data Analysis

Data was analyzed using SPSS version 22, summarized and analyzed using measures of central tendency, other descriptive measures and inferential statistics.

Results

Table 1. Objective: Assessment of Demographic variables of the respondents

Variable	Frequency(N=196)	Percentage%
Age		
18-22yrs	42	21.4
22-27yrs	69	35.2
28-32yrs	51	26.0
33-37yrs	15	7.7
38-42yrs	12	6.1
43-47yrs	7	3.6
Ethnicity	148	75.5

Hausa	39	19.8
Fulani	3	1.5
Yoruba	1	0.5
Igbo	5	2.6
Kanuri	4	2.0
Education	53	27.0
None formal	34	17.3
Quranic	80	41.0
Primary	22	11.2
Secondary	3	1.5
Tertiary		81.1
Adult	159	8.7
Occupation	17	10.2
None	20	10.2
Hand craft	20	36.2
Teaching	71	53.6
Terms of	105	14.8
pregnancy	29	44.9
1wk-12wks	88	27.6
13wks-	54	10.7
28wks	21	2.0
29wks-	4	46.9
40wks	92	33.2
N of	65	15.8
pregnancy	31	4.1
1-3	8	
4-6		
7-9		
10-12		
13-15		
N of		
children		
1-3		
4-6		
7-9		
10-12		

From table 1, above revealed that majority of the respondents were at the age of 22 to 27yrs with certain percentage of (35.2%) and the other side of the analysis proves 28-32yrs of the respondents were at (26.0%,), while (6.1%) were at the age of 38-42yrs. The table also showed that most of respondents (75.5%) were Hausas, followed by Fulani (19.9%), Hausa/Fulani are the most populated ethnicity in the state with about (95%) of the total population in the study area as well as the state at large, on level of education majority (41.0%) of respondents attended secondary school, (27.0%) attended Quranic School, (17.3%) attended primary school and (11.3%) tertiary school. This indicated the low level of educational attainment among the participants. The table also revealed (81.1%) of respondents do not have any occupation, some do various handicrafts (8.7%) and teachers constitute (10.2%). From the aforementioned responses, it was indicated that unemployment is higher among the respondents. The table further shows majority (53.6%) of respondents were within 29 weeks-40 weeks of pregnancy, (36.2%) were within 13-28 weeks of pregnancy, while (10.2%) were within 1-12weeks of gestation. Most of respondents (44.9%) had 4-6 pregnancies; while (10.7%) had 10-12 pregnancies; (46.9%) of respondents were having 1-3 children while (3.6%) were having 10-12 children.

Table 2. Objective 2: identification of factors that influences the use of un-prescribed medications

Variables	Frequency (N=196)	Percentage%
Method of treatment		
Un-prescribed medications.	54	27.0
Traditional medications.	19	9.7
Both**.**	123	63.3
Awareness of harm associated with un-prescribed drugs		
Not aware	110	56
Partially aware	56	29
Aware	30	15
Reasons for use of un-prescribed drugs & traditional medications		
Cultural belief	55	28.1
Ignorance	28	14.3
Shortage_of_qualifed health personale	80	40.8
Poverty	33	16.8
Common drugs used		
Pain killer	76	38.8
Antibiotics	13	6.6
Sleeping pills	2	1.0
Herbs	45	23.0
Antacid	27	13.8
Anti-emetics	33	16.8

From table 2, majority of the respondents (63.3%) used both un-prescribed drugs and traditional medications, (27.0%) used un-prescribed drugs only and (37.2%) use only traditional medication. This was in line with the study "frequent use of herbal agents & over the counter medications in pregnancy in Africa, as well as in related study on use & abuse of drugs & chemicals in Tropical Africa [7&5]". Meanwhile From table 2, also revealed that (56.0%) of the respondents were not aware of the harm associated with traditional & un-prescribed medications, (29.0%) were partially aware, while (15.0%) were aware of the harmful effect. This was in support of a study that "many more than 96% of all pregnant women were reported to be taking all kind of medications without knowing its harmful effect [27]". Also the table shows (40.8%) of respondents attributed their reasons for the use of un-prescribed drugs & traditional medications to shortage of qualified health personal in their health care centers, while (28, 1%) related it to cultural belief; this was in line with a study on "Cultural factors blocking the utilization of orthodox medicine in Warri area of Delta state Nigeria [10]. As well as in a study on "from intentions to actions: a theory of planned behavior, New York [4]. (16.8%) attributed it to poverty. The table also showed (38.8%) of respondents used pain killers as common drugs used in pregnancy, (23.0%) of respondents takes herbs (traditional) while (16.8%) used anti-emetics and (13.8%) used antacid. This was in support of the study on the use of herbs in pregnancy which stated that "despite the fact that there is limited knowledge among pregnant women on the potential side effects of many herbal medicines in pregnancy, many pregnant women in developing countries take it [26]".

Table 3. Objective 3. Identification of relationship between education & awareness of harm associated with un-prescribed medication

Variables		Educational level	Awareness of harm associated with traditional medications
Educational level	Pearson Correlation	1	.810**
	Sig. (2-tailed)		.000
	N	196	196
Awareness of harm associated with un-prescribed medications	Pearson Correlation	.810**	1
	Sig. (2-tailed)	.000	
	N	196	196

**Correlation is significant at the 0.01 level (2-tailed)

Table3, above showed significant relationship ($p<0.01$) between level education & awareness of harm associated with the use of un-prescribed medications.

Table 4. Correlation between occupational status & drugs commonly used in pregnancy

Variables		Occupational status	Drugs Used In preg
Occupational status	Pearson Correlation	1	702**
	Sig. (2-tailed)		.000
	N	196	196
Drugs commonly used in pregnancy	Pearson Correlation	.702**	1
	Sig. (2-tailed)	.000	
	N	196	196

**. Correlation is significant at the 0.01 level (2-tailed).

Table 5 shows significant correlation ($p<0.01$) between occupational, Status & used of drugs in pregnancy using Pearson correlation

Discussion

The demographic characteristic of the respondents, showed majority were Hausas and Fulanis, while most of respondents were at the age of 22-27yrs; this was in relation that Kano Municipal & Kumbotso are predominantly Hausas/Fulani & women gets married at the age of 19-21yrs. Similarly result also showed that majority of respondents (41.0%), attended secondary education, only (11.3%), that attended tertiary education. This indicated the low level of educational attainment of the respondents. It was found that majority of the respondents (63.3%) used both un-prescribed & traditional medication. This could be due to the fact that, in Nigeria, patent medicine stores are usually the first choice in health care, with inadequate qualified health persona and cultural beliefs on the use of traditional medications. In Nigeria also, laws regulating sales and distribution of un-prescribed drugs & traditional medications are poor while access to them is largely unrestricted. There is significant correlation between awareness of harm associated with un-prescribed drugs & respondents' educational level ($p<0.01$), this was attributed to the low level of education and literacy among the respondents; also, significant correlation between occupational status of respondents & common drug they use in pregnancy ($p<0.01$), this was attributed to joblessness and cheaper access to the drugs.

Conclusion

The study concluded that majority of pregnant women used both un-prescribed drugs & traditional medications; most of them indicated easier accessibility of both un-prescribed drugs & traditional medications as their reasons for indulgence. It was concluded that most of pregnant women were not aware of harm associated with un-prescribed drugs and traditional medications, and shortage of qualified health personal along with cultural belief, coupled with easy accessibility contributed to the use of un-prescribed drugs during pregnancy.

Recommendations

It was recommended that health education and massive campaign with community

involvement should be encouraged by the healthcare givers, while government should formulate a policy to ban access to un-prescribed drugs, at the same time regulating the activities of traditional healers.

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