

Self-Medication: Maternal Knowledge and Awareness in a Niger-Delta Community of Nigeria

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Abstract: The study examined the knowledge and awareness of mothers towards self-medication in a Niger-Delta community of Nigeria. It was designed to assess the knowledge and awareness of mothers towards self-medication.

A sample size of 560 pregnant women and mothers within age 15 to age 49 were randomly selected. The research design was in a descriptive form. A structured questionnaire was used with test retest coefficient of 0.84 established. Data collected were analysed using chi-square, numbers, and percentages.

Findings show that a great numbers of the respondents were not aware of the severity of the negative effects of self-medication on pregnancy and childbearing. The commonest reasons given for not consulting qualified personnel for prescription was that, illness not serious enough to require consultation, peer influence and ignorance about the problem resulting from self-medication. Similarly, convectional education and health education were associated with the knowledge and awareness of mothers towards self-medication. Majority of the mothers had a significant knowledge of factors that influence self-medication. Finally, the implications of this study are the needs for health education and awareness programmes on the hazards, the risks and harmful effects as well as malformation that are associated with self-medication.

Conclusively, the paper suggests that government and non-governmental organization should see to the unnecessary media advertisement of drugs and ensures that only qualified pharmacist are allowed the sale and dispense of drugs. Future studies should compare the effects of self-medication on pregnant women and breastfeeding mothers.

Keywords: Knowledge, Awareness, Mothers, Self-Medication.

I. INTRODUCTION

Drugs are defined as therapeutic agents, substance or even chemicals other than food, used or employed in the prevention, relief, treatment or cure of disease both in man (humans) and animals [1] and as such, they need to be ordered (prescribed) by a competent health giver for administration. Thus, drugs generally can be classed as either prescribed or un-prescribed, hence when they are ordered to be administered either orally (verbally) or written in the treatment of diseases conditions, they are referred to as prescribed or prescription drugs. On the other hand, non-prescription drug (self-medication) is the use of drug(s) to procure treatment for a health condition without proper diagnosis or prescription by qualified medical personnel [2].

The practice of self-medication has long been in existence worldwide, and the situation continues to increase particularly in developing countries [3], [4], [5] especially in Sub Saharan Africa [5], [6]. Self-medication involves acquiring medicines without a prescription, representing old prescriptions to buy medicines, sharing medicines with relatives or members of one's social circle [2], [7]. The irrational use of drugs is a cause of public, medical professional [2], [7] and government concern especially in Nigeria where unsafe prescription is a serious problem [7].

The prevalence of self-medication is higher among women [8], [9], [10], [11] especially among women who live alone and it is commoner among the lower socio-economic class [5]. There is increasing indication that self-medications among pregnant women are common and the situation in developing countries is worrisome, where there is poor medical services and lack of professional control of medicinal products [5]. This therefore forces people to self-medicate and various forms of substances and herbs are often used for different medical illnesses [11]. Despite the adverse effect on pregnancy, there are few programs available for their control [4].

Self-medication is a health-seeking behavior among the women within the child bearing age [5] that is associated with apparently minor diseases that are usually self-diagnosed and treated with medicines acquired at pharmacies or other medicines outlets [11], or the intermittent or continuous use of a medication prescribed by a physician for chronic or recurring diseases or symptoms [2], [12]. This is because pregnant women are known to suffer varieties of minor sicknesses such as back pain, headache, heartburn, nausea, vomiting, and haemorrhoids which may be cured appropriately with self-medication [11]. The practice of self-medication among pregnant women is on the increase in Nigeria [4]. The increase in the quantities and varieties of medicines worldwide eases the accessibility of medicine by users, thereby giving options for its misuse [2]. Poorly guided self-medication with prescription, over-the-counter and herbal medicines is persistent and significantly associated with gestational age and occupational pattern among pregnant women in Nigeria [11] and other developing countries [13]. However, non-pharmacists lack the essential professional expertise required to guide appropriate and safe self-medication especially in pregnancy [11]. Majority of these women lacked the appropriate knowledge of potential adverse outcomes associated with the use of certain medicines, and the potentially harmful medicines to avoid during pregnancy [11].

However, there is scarcity of documented data to back the claim [5] and there is knowledge gap on the importance of appropriate intervention targeted towards empowering pregnant women in Nigeria with comprehensive information about possible adverse effects inherent in indiscriminate and unauthorized use of medicines [11]. However, a comprehensive study of the level of awareness, attitude and knowledge of nursing mothers and the pregnant women, will help reduce these problems caused by drugs in Amassoma community as well as finding solution to this increasing way of these practices among pregnant women and women within the child bearing age.

II. OBJECTIVES

1. Assess the knowledge of mothers towards self-medication.
2. Identify the social factors that influence self-medication by mothers.
3. Assess the knowledge and awareness of the effects of self-medication on mothers.
4. Assess the influence of health education on self-medication among mothers.

III. SIGNIFICANCE

There is no gainsaying the fact that the social, psychological and health challenges inflicted by self-medication on mothers in particular and, the entire population is alarming. Ironically, a great number of those who practice self-medication do not have the in-depth knowledge of the negative impacts of their actions and/or inactions on them and the society; both at micro and macro levels. Therefore, this study seeks to investigate the pattern and level of awareness and knowledge of mothers' towards self-medication in order to add to existing knowledge and make useful recommendations for policy makers and mothers in particular.

IV. STATEMENT OF HYPOTHESES

1. Education status of mothers will determine the attitude of majority of them towards self-medication.
2. Giving health education to the majority of mothers will significantly influence their attitude about self-medication.

V. THE CONCEPTUAL FRAME WORK: RATIONAL CHOICE THEORY

Rational choice theory was pioneered by a sociologist called George Homans, who in 1961 laid the basic framework for exchange theory, which he grounded in hypotheses drawn from behavioural psychology. During the 1960s and 1970s, other theorists (Blau, Coleman, and Cook) extended and enlarged his framework and helped to develop a more formal model of rational choice. Over the years, rational choice theorists have become increasingly mathematical.

The basic principles of rational choice theory are derived from neo-classical economics as well as utilitarianism and game theory (Levi *et al* 1990[14]). The focus in rational choice theory is on actors. Actors are seen as being purposive or acting intentionally as a means to an end or goal towards which their actions are aimed. Actors are also seen as having preferences or values for utilities.

Although rational choice theory starts with actor's purposes or intentions, it also take into consideration at least two major constraints on action. The first is the scarcity of resources; actors have different resources as well as differential access to other resources. This is in line with the fact that maternal health facilities are not within the reach of the poor people, the majority of whom encounter health problems in their day - to- day subsistence activities, have little or no access to health care and where they have access they do not have enough resources (money) for procurement due to high cost. Alternatively, for those with lots of resources, the achievement of ends may be relatively easy.

In pursuing a given end, actors must keep an eye on the costs of foregoing their next most attractive action. An actor may choose not to pursue the most highly valued end if his/her resources are negligible, if as a result the chances of achieving that end are slim, and if in striving to achieve that end he/she jeopardizes his/her chances of achieving his/her next most valued end (Friedman and Hechter[15]). Actors are seen as trying to maximize their benefits, and that goal may involve assessing the relationship between the chances of achieving a primary end and chances for attaining the second most-valuable objective (Ritzer, 1996[16]).

A rational action involves a utilitarian consideration between competing alternatives for specific ends. This emphasizes the choice between means and ends, that is, a woman may accept and use competent maternal health facilities, while another may result to self-medication. This brings to focus the pathways to achieving the goal of good health.

Zola (1964[17]), on his own, postulates that some people whose condition demands a rationally positive action refuse to take such action even when their lives are seriously in danger. He concluded that there is something about these people or in their background which has disturbed their rationality, otherwise they would actually seek aid. Blackwell (1963[18]) and Green *et al* (1974[19]) revealed that people subscribe to self-medication because of conflict between a strong feeling of susceptibility to disease and of a feeling that there are no efficacious methods of preventing or controlling the disease.

VI. METHODOLOGY

The setting of the study: The research was conducted in Amassoma community in Bayelsa State Nigeria. The community is made up of 22 clans commonly called 'Pele'. It is assessable by land from Yenagoa the state capital city. The major languages are Izon (Ijaw) and pidgin English. Like every Izon town, people of Amassoma are characterized by similar cultural system, norms and values with a population of over 36,454 persons (National Population Commission, 1991) [20].

Research design and participants: The study adopted descriptive design to explore the knowledge and awareness of mothers towards self-medication. The target population comprises of pregnant women and mothers of childbearing age with age 15-49. A total of fourteen (14) clans were randomly selected out of 22 clans of which, forty (40) persons per clan were selected at random. Questionnaires were administered to five hundred and sixty (560) randomly selected respondents. The demography of the respondents shows that, about 18 (21.1%) were single parents, 54.6% were married, 58 (10.366%) were divorced, 78 (13.93%) were widows. 290 (51.79%) had secondary education 162 (28.92%) of the respondents had only primary education, 144 (25.71%) respondents claimed to be full house wife, 46 (8.21%) engage in farming and 68 (12.14%) engage in fishing, 90 (16.08%) were traders, 161 (28.75%) of the respondents sourced their income through self-employment. 256 (45.71%) were from polygamous family while 304 (54.29%) were from monogamous family.

Procedure: Permission was obtained from the chiefs of the community, community development committee, and heads of household. The questionnaires were made anonymous to retain respondent's privacy and confidentiality, consent was

obtained verbally from the individual respondents before data collection. The questionnaires were given to the respondents to fill and collected back. The field work lasted for 12 weeks.

Data analysis was done with the use of percentage and Pearson's chi-square tested was used to assess the significant differences between variables.

VII. RESULTS

TABLE I: Frequency table showing how informed the respondent are about self-medication

S/N	Responses	Frequency	Percentage
1	Fully aware	220	39.28
2	Partially aware	166	29.64
3	No enough information	136	24.29
4	No awareness	38	6.79
	Total	560	100.0

The table above shows that 220 (39.28%) of the respondent were fully aware of the risk that are associated with self-medication during pregnancy. About 136 (24.29%) had information about the risk but felt the information was not enough, while 38 (6.79%) had no awareness.

Table 2: Frequency table showing difference sources of information about the associated risk of self-medication and sources of knowledge about drugs use

S/N	Responses	Frequency	Percentage
1	Doctor, Nurses and other health workers	190	22.75
2	Chemist	87	10.42
3	Television	120	14.37
4	Radio	113	13.53
5	Friends/relatives	105	12.58
6	Church/Mosque	42	5.03
7	Films/Drama/Video	111	13.29
8	Newspaper/advertisement	46	5.51
9	Mother-in-law	21	2.52
	Total	835	100.0

The respondents selected more than 1 source.

Table 2 revealed that 190 (22.75%) of respondents got their information through conversation with health workers, majority got theirs from one of the electronic media specially Television 120 (14.37%) radio 113 (13.53%), films and videos 111 (13.29%), while others got theirs through advertisement 46 (5.51%), friends 105 (12.58%) and mothers-in-law.

Table 3: Shows if respondent have heard of malformation (deformation) dangers resulting from self-medications

S/N	Responses	Frequency	Percentage
1	Yes	413	73.75
2	No	79	14.11
3	Not sure	68	12.14
	Total	560	100.0

Four hundred and thirteen (73.75%) of the respondents agreed that they were aware and well informed about malformation that may result from drugs use in pregnancy.

Table 4: Educational status of majority of mothers will determine their attitude towards self-medication

Categories	F	%	df	X ²	P
At most primary education indulged in self-medication	21	3.75			
At most primary education occasionally indulged in self-medication	50	8.93			
At most primary education regularly indulged in self-					

medication	172	30.71	2	185.24	<0.001
At least secondary education seldomly indulged in self-medication	158	28.21			
At least secondary education occasionally indulged in self-medication	108	19.29			
At least secondary education regularly indulged in self-medication	51	9.11			

A Pearson chi-square was used to access whether the attitude of majority of the mothers towards self-medication could be categorized in terms of how educated they were. More than 172 (30.71%) of the respondents who did not had more than primary school education regularly indulge in self-medication while 158 (28.21%) of those who had at least secondary school education occasionally indulged in self-medication [$\chi^2 (2) = 185.24, P < 0.001$].

Table 5: Influence of health education on the attitudes of mothers toward self-medication

Categories	f	%	df	X ²	P
Very Influential	328	58.57			
Influential	121	21.61	3	414.16	<0.001
Uninfluential	82	14.64			
Very uninfluential	29	5.18			

Table 5 results showed the null hypothesis which states that given health education to the majority of mothers will significantly influence their attitude about self-medication accepted, because 80.18% that were influential concerning the influence of health education and attitude towards self-medication were more than 19.82% that were uninfluential [$\chi^2 (3) = 414.16, P < 0.001$].

Table 6: Summary of chi-square computation of respondents as per knowledge of factors that influence self-medication

Categories	F	%	df	χ^2	P
Very knowledgeable	119	21.25			
Knowledge	59	10.53	3	199.98	<0.001
Unknowledgeable	114	20.36			
Very unknowledgeable	268	47.86			

VIII. DISCUSSION

Based on level of education of the respondents, it was deduced that majority of the mothers were aware and informed of the fact that self-medication is harmful but findings further revealed that they don't know the extent and nature of such harmful effects like malformations (deformations) resulting from self-medication. Also it was found that most of the respondents are aware that, traditional drugs use can result to harmful effects and can cause damage at specific stages of pregnancy such as foetal malformation, congenital abnormalities and miscarriages especially those drugs that they soaked in alcohol that they take orally. It was deduced that mothers-in-law and relatives are the main sources of information and advice for engaging in self-medication.

Analysis of the most commonly used drugs showed that routine drugs, Anti-malaria drugs, blood tonic as well as pains relieving drugs are the most commonly used drugs and dangerous drugs like antibiotics and hormones can also be bought without a valid prescription. This was supported by Lawan et al., [5] and Gaillard et al., [21] findings that proprietary drugs which are sold over-the-counter include pain relievers, cough remedies, anti-allergies, laxatives, vitamins, tonics, antacids, and many others. This may be due to high rate of malaria attack, anaemia and ready availability of the various blood tonic and un-curtailed series of advertisement of pain relieving drugs on the media, inside public buses and along the streets.

It was deduced that more than average of the women afford their drugs without consulting medical experts and one could strongly believe that self-medication is being practiced among the women of Amassoma, this is also applicable and common in developing countries. This was supported by [3], [4], [5], [22] that self-medication and non-doctor's prescription of drug is common in developing countries.

Women indulged in self-medication not because they are not informed of the health risk involved but, because of high bill price for treatment given by the medical experts hence, self-medication provides cheap alternative to people who cannot afford to pay competent medical practitioners.

Self-medication therefore, is often the first response to illness among the people with low income. This was supported by Afolabi et al., [23] and Lawan et al., [5].

Finally, it was established that conventional education and health education were associated with involvement in self-medication.

IX. CONCLUSION

A larger proportion of the respondents were found to be indulging in self-medication. It was also concluded that ignorance and lack of in-depth understanding of the dangers associated in self-medication, were the common reasons reported for indulging in self-medication by the respondents.

Furthermore, there is need for health education of the mothers and the public on the risks, problems, effects and complications that may arise due to self-medication. Levels of income, conventional education and health education were associated with the attitude of the mothers.

X. RECOMMENDATIONS

The following recommendations were made; the health workers in partnership with the community leaders should know the risk and the problems of harmful drugs use and ensure they inform the mothers adequately. There should be proper health education at every ante-natal clinic programme and within the community. Mothers are encouraged to always seek counsel and take only drugs prescribed by physicians during pregnancy. The government and non-governmental organization should embark on campaign and enlightenment programmes in the rural areas.

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