
Antibiotic Usage in an Urban Population in Nigeria

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ABSTRACT

The purpose of this study was to determine the knowledge and proper usage of antibiotic substances among an urban population, 1,260 respondents comprising 530 females and 730 males, were randomly surveyed to determine their knowledge and proper usage of antibiotics. This was done by means of questionnaires administered to them. 10% of the respondents were married, and 40% were gainfully employed, 80% visit hospital, 90% has knowledge of antibiotics, but 50% go to the Doctor for prescription, 10% go to the Pharmacists; while 40% practice self medication. 60% purchase their antibiotics from pharmacy shops while 40% purchase from patent medicine dealers. There is adequate knowledge of antibiotics and consultation of qualified Medical personnel is equally adequate but the practice of self medication is apparent. This study has shown that people in an urban area are aware of antibiotics but do not have adequate knowledge of the proper usage of antibiotics, since quite a number of them practice self medication and this could lead to abuse and misuse of antibiotic substances. Therefore there is the urgent need for proper education and counseling on the proper usage of antibiotics in this country.

Keywords: Antibiotic, Drug Abuse, Self Medication.

INTRODUCTION

Antibiotic substances are subset of antimicrobials that are naturally produced by biosynthetic processes of molds and bacteria. They are examples of secondary metabolites. Antimicrobial drugs act in one of several ways: by selective toxicity,

by inhibition of cell membrane synthesis and function, by inhibition of protein synthesis, or by inhibition of nucleic acid synthesis (Ref). Antibiotics are normally abused by consumers for many reasons. They are readily available, cheap and thus easily affordable.

When a patient visits the hospital once and gets a prescription the tendency is there for the patient to start self medication at the slightest sign of similar symptoms being ignorant of the fact that many ailments can present similar symptoms. That is why many of them only go to the hospital as a last resort, by which time diagnosis becomes more difficult (1-3). It is common practice in this country that at the slightest sign of abdominal pain people swallow some few tablets of tetracycline and flagyl. This is very unfortunate. People in this part of the world regard antibiotics as properatroy drugs like the analgesics and antimalarials which are sold under control and strictly regulated. However, in this country, antibiotics are sold by patent medicine dealers, hawkers and even on the street and inside buses. Moreover, dispensing pharmacists do not help matters as they sell antibiotics without prescription and so do not bother about correct dosage. This is gross professional misconduct ^[2]. Antibiotics are supposed to be taken strictly according to the prescription and for the stipulated period. Clinics are even guilty of prescribing antibiotics for longer duration. Abuse is the development of resistance strains by pathogenic bacterial strains that were formally sensitive ^[3]. During the discovery of penicillin it was

observed that some strains of bacteria were resistant showing that antibiotic resistance exists ^[4]. It has also been observed that antibiotic usage is a predisposing factor in the development of resistance. Therefore, authors proposed that to prevent the development of resistance, use of antibiotics should be avoided. What a paradox ^[5]. Therefore, to prevent the development of resistant bacterial strain to antibiotics the emphasis should be on the correct usage of antibiotics, by physicians, pharmacists, scientist and of course the patients whose compliance is a major factor in the variables. If the correct doage is prescribed and dispensed but the patent does not comply then we are back to square one. From the foregoing, the awareness of antibiotic usage becomes imperative, so that health providers can devise ways of tackling the problem of misuse and abuse of antibiotics.

MATERIALS AND METHODS

One thousand two hundred and sixty (1,260) individuals comprising seven hundred and thirty (730) males and five hundred and thirty (530) females in Benin City, Nigeria, were randomly surveyed by means of questionnaires administered to them by trained field workers. This was to asses their demographic characteristics, knowledge and usage

of antibiotics, visit to Hospitals, source of purchase of antibiotics and self medication. The

questionnaires were collated and analyzed to determine the extent of awareness and usage of antibiotics.

RESULT

Table 1: Social Demographic Characteristics of Respondents

	Male	Females	%
Educational level			
Primary	50	40	90
Secondary	100	220	320
Tertiary	70	50	120
Married	430	130	560
Employed	330	200	530
Total	730	530	1260

Table 2: Antibiotic Usage among Respondents

	Male	Females
	730	530
Visit of hospitals	675	450
Knowledge of antibiotics	700	500
Source of purchase		
Pharmacy	90	200
Patent medicine dealers	300	200
Self medication	300	200

DISCUSSION

This study presents the degree of awareness and usage of antibiotics by people surveyed in Benin City Nigeria. The survey shows that a large proportion of those sampled have knowledge of antibiotics, visit hospitals when sick, but still practice self medication. It was also observed that there is no adequate control on the sales and administration of antibiotics since

people can purchase antibiotics without Doctor's prescription. Indiscriminate use of antibiotics could lead to abuse and misuse which ultimately can encourage the development of antibiotic resistance by bacteria that were formally sensitive. The growing resistance of bacteria to antibiotics has previously been reported ^[7].

CONCLUSION

The practice of self medication has to be discouraged so that the proper use of antibiotics can be upheld. A combined team of the physician, pharmacists, medical lab scientist, nurses and the social workers are seriously needed to tackle the problem of antibiotic abuse and misuse in this country. We also need proper education, counselling and campaign on the proper use of antibiotics. This will help sustain and effect the antibiotic policy that is already in place.

Conclusively, there is abuse and misuse of antibiotics in this part of the country. If the situation is like this in an urban area which is supposedly enlightened, what will the situation be like in the rural areas with very high degree of illiteracy; therefore, we need to urgently address the problem of antibiotic abuse and misuse in this country.

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