Research Article

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Prevalence of prescription medication sharing behaviour among students

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Abstract

Prescription medication sharing behaviour among young people is of public health significance. The purpose of this study was to determine the prevalence of prescription medication sharing behaviour among students. 895 questionnaires were administered to students. In the questionnaires, they were asked to indicate whether they had previously borrowed or loaned prescription medication or engaged in both practices. They were also asked to indicate the type of medicines they had shared; reasons for sharing prescription medication; and if their condition improved after the medication sharing. The results revealed that 52.7% of the study population were involved in prescription medication sharing, among which 31.4% had both borrowed and loaned prescription medicines. Prescription medication sharing was more common among ages 16-25 years. The common reasons given by respondents for sharing prescription medications were: had the same problem as the person (30.5%) and got it from someone who knows about medicines (22.5%). The common types of medication shared by the study population were pain medications (55.1%), antibiotics (27.3%) and cold medications (16.1%). 31.1% of those involved in medication sharing behaviour did not have their condition improved. The study revealed that there is a high prevalence of prescription medication sharing behaviour among students.

Key-Words: Prevalence, Prescription medication sharing, Students

Introduction

Medication sharing behaviour, defined as the act of "giving medication to someone else ("loaning") or taking someone else's medication ("borrowing")"[1], has a great public health implication. Medication sharing results in inappropriate use of drugs and non-adherence to therapy. It also reduces care seeking; increase risk of adverse effects and damage to fetus; promote resistance and addiction/misuse of addictive medication; and result in drug interactions and undesired outcome of therapy[2, 3]. When medications are shared there is always loss of a vital component of care, which is patients counselling received from medication experts during the dispensing of medicines[2].

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People in developing countries are prone to prescription medication sharing, this is because self medication with prescription medicines is a major problem and people keep large stock of medicines at home either for reuse or give them to someone else who requests for them[4].

The prevalence and impact of medication sharing behaviour in developing countries have not yet been evaluated. This is because no research has been done on this in developing countries. Studies were only carried out in developed countries and the impact evaluated was of public health concern. Goldsworthy *et al*., examined the impact of medication sharing behaviour beyond abuse and exposure, and concluded that prescription medication sharing can lead to adverse outcome at the societal and personal level[2]. Daniel *et al*., examined prescription medication sharing among teenagers and its potential dangers to unplanned or undiagnosed pregnancies[1]. They concluded that medication sharing behaviour is common among adolescent girls than boys and that accidental exposure to teratogens is likely with this behaviour. Bond also examined prescription medication sharing among

women of reproductive age and concluded that it has potential health consequences. Ellis and Mullan, identified polypharmacy and multiple chronic comorbidities as a risk factor for prescription medication sharing behaviour[3]. In Canada, Poulin reported sharing of prescription stimulants among youths[6]. Medication sharing behaviour is common among all ages, but studies have shown that this behaviour is more common among young people[1, 7].

This research aims to determine the prevalence of prescription medication sharing among students in the University of Jos, Jos, Nigeria.

Material and Methods

The study was conducted among students of the University of Jos, Jos, Nigeria. The survey instrument used was a questionnaire adapted from Goldsworthy *et al*[2]. The researcher sampled 895 students through a stratified random sampling method, to respond to a pretested self-administered questionnaire. An oral informed consent was obtained from each respondent. On the questionnaire, the respondents were made to read an orientation paragraph: A prescription is a medication order received from a clinic/ hospital to enable you get a medicine, and it usually has your name on it. Medication sharing means that you give your prescription medicines to someone else or you take their own prescription medicine. In the questionnaires, we asked respondents to indicate wether they had ever borrowed or loaned prescription medication or engaged in both practices. We also asked them to indicate the type of drugs they had shared; reasons for sharing prescription medication and if their condition improved or not.

Data were analysed using statistical package for social science (SPSS) to generate descriptive statistics. Fisher's exact test was used to determine the association between medication sharing behaviour and the study variables.

Results and Conclusion

Characteristics of respondents

The respondents were students of the University of Jos, Jos, Nigeria. 895 questionnaires were distributed but only 730 questionnaires were appropriately filled and returned, thus representing 81.6% of the distributed questionnaires. Out of this, 47.8% of the respondents were females while 52.2% were males. Majority of the respondents (63.7%) lie within the age bracket of 16-25 years. The average number of prescriptions received by respondents during the past year was 1.2.

Proportion of individuals involved in medication sharing

The results of this study showed that medication sharing behaviour is high among students. The results revealed that 52.7% of the study populations were involved in prescription medication sharing. 16.8% of the respondents (which represent 31.4% of those involved in medication sharing) had both borrowed and loaned prescription medicines. Most of those sharing prescription medications were between the ages of 16 and 25 years (table 1). The medication sharing behaviour was found to be significantly associated (two-tailed p-value is less than 0.01) with age and gender.

The results showed that 65.2% of students aged 16-25 years reported sharing prescription medication. The result is in agreement with other studies which reported high incidence of medication sharing behaviour among adolescents[1, 2, 8]. A high proportion of females reported sharing prescription medication than males (table 1), which also agree with other studies that shows that more females than males are involved in prescription sharing behaviour[1]. The high incidence of prescription medication sharing among female students is of concern giving the fact that they are of a reproductive age and prescription medication sharing behaviour can increase the risk of teratogenicity in unplanned or undiagnosed pregnancies[1, 7].

Reasons for sharing medication

The common reasons given by respondents for sharing prescription medications were that they had the same problem as the person (30.5%) or got it from someone who knows about medicines (22.5%). Having the same problem as the person who has the medication has been identified as one of the common reason why people share medication[1, 7]. Other major reason were that they had an emergency that needed prompt response (17.5%) (Table 2).

Types of medication shared

The common types medication shared by the study population were pain relievers (55.1%), antibiotics (27.3%) and cold medications (16.1%) as seen in table 3. Sharing of pain medications and antibiotics were common among the respondents. This result is not unlikely because research has shown that pain medications and antibiotics are the common medicines used for self medication in Nigeria[9]. The sharing of antibiotics results in inappropriate use of antibiotics which can lead to antibiotic resistance because neither those giving out their antibiotics nor those receiving it are likely to have a complete dose regimen[10].

Outcome of medication sharing and opinion about prescription medication sharing

The study showed that 68.6% of those involved in medication sharing behaviour had their condition improved and 34.8% believe that medication sharing behaviour is appropriate (table 4). Despite the improvement seen by the patients, there may be other dangers associated with this practice which may not

known to the consumer. This shows the need for public education on the dangers of prescription medication sharing behaviour. The study therefore reveals that there is a high prevalence of prescription medication sharing behaviour among students of the University of Jos. Hence there is need for public education on the dangers of this behaviour.

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Table 1: Percentage of respondent sharing prescription medication

Variables	Base No.	No. involved in medication sharing (%)	No. loaned medication Only (%)	No. both borrowed and loaned medication (%)	No. not sharing medication (%)
Age					
16-25 yr	465	303 (65.2)*	95 (20.4)	82 (17.6)	162 (34.8)
26-35 yr	207	72 (34.8)*	26 (12.6)	38 (18.4)	135 (65.2)
36+ yr	58	10 (17.2)*	6 (10.3)	1 (1.7)	48 (70.7)
Total	730	385 (52.7)	127 (17.4)	121 (16.8)	345 (47.3)
Gender					
Female	349	225 (64.5)*	75 (21.5)	68 (19.5)	124 (35.5)
Male	381	160 (42.0)*	52 (13.6)	53 (13.9)	221 (58.0)
Total	730	385 (52.7)	127 (17.4)	121 (16.8)	345 (47.3)

*Association between column and row is statistically significant ($p < 0.01$)

Table 2: Reasons given by respondents for engaging in medication sharing

Reason	Percentage (%)
Had an emergency and needed prompt respo	17.5
Had the same problem as the perso	30.5
Heard about the medicine from advert	13.4
Got it from someone who knows the medici	22.3
Got it from a family member	9.3
Ran out of my medicine	8.2
Had leftover medicine that will go waste	7.1
Others	9.7

Table 3: Types of medication shared by respondents

Types of medication	Percentage (%)
Cold/Flu Medication	16.1
Pain Medication	55.1
Antibiotics	27.3
Skin problem medications	7.8
Mood medications	1.6
Antimalarials	2.5

Table 4: Outcome of medication sharing and opinion giving by respondents on medication sharing

Variables	Percentage (%)
Outcome	
Ill-health condition improved	68.6
Ill-health condition did not improved	31.4
Opinion	
Good	34.8
Bad	65.2