KNOWLEDGE ON THE DANGERS OF SELF-MEDICATION AMONG CLIENTS OF V AND S PHARMACY, KIREKA, WAKISO DISTRICT. A CROSS-SECTIONAL STUDY.

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Abstract

Background
Medications represent an important remedy for most illnesses and improve the quality of life of patients. The study aims to assess the Knowledge of the dangers of self-medication among clients of v and S Pharmacy, Kireka, Wakiso district.

Methodology
This was a cross-sectional study comprised of all patients who were seeking medication from V and S pharmacy. in Kireka during the period of data collection. Results were manually analyzed and entered into the Microsoft Excel program and were then presented in the form of tables, graphs, and pie charts.

Results
16 (15.0%) of the participants had attained a secondary level of education, 15 (37.5%) tertiary level of education, 6 (7.5%) primary level and 3 (40.0%) were completely illiterate. The majority 31 (77.5%) were aware that self-medication wasn't safe, and 9 (22.5%) considered it to be safe for themselves. 38 (95.0%) would seek the assistance of a health worker if self-medication failed, 2 (5.0%) would seek the assistance of a friend and 0 (0%) would change to another treatment by themselves. The majority 37 (92.5%) agreed with the fact that it is bad to take medicine overdose due to ignorance during self-medication, then 3 (7.5%) disagreed with it. The majority 32 (80.0%) agreed with the fact that it was important to complete the course of a drug even when one felt better whereas 8 (20.0%) disagreed with it.

Conclusion
The levels of knowledge about the dangers of self-medication among clients of V and S pharmacy in Kireka was high based on participant awareness that one needed to seek medical advice with failed treatment, drug overdose being dangerous

Recommendation
The government of Uganda through its Ministry of Health should continue sensitizing community members through various mass media about the dangers of self-medication.

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Background of the study

Medications represent an important remedy for most illnesses and improve the quality of life of patients. However, self-medication (SM) leads to potential health risks (Schweim, & Ullmann, 2015). SM is the act of a person taking medicine on their account or as a result of a recommendation from non-medical personnel to prevent, treat, or cure a condition whose identity and severity are generally unknown (Bennadi, 2014). SM may include using leftover drugs from previous treatment courses, or drugs obtained from relatives or friends, along with over-the-counter (OTC) medicine as well as prescription-only medicines obtained without a prescription (Ocan et al., 2015).

Irrational use of medicines is worst in the least developed countries, with an increasing trend among youths (Thapa, et al. 2018). Headache, common cold, fever, hyperacidity, and vomiting are the common illness symptoms of university students for which they do self-medication (El-Nimr, et al. 2015). At Kiruddu National Referral Hospital in Uganda, the prevalence of SM was 22.2% (Nabaweesi, et al. 2021) and the SM in Northern Uganda was associated with knowledge about the drug among many other factors (Ocan, et al. (2014). The study aims to assess the Knowledge of the dangers of self-medication among clients of v and s pharmacy, Kireka, Wakiso district.

Methodology

Study Design and rationale

This was a cross-sectional study because all the required data from the study respondents was obtained once without any need for follow-up of the respondent.

Study Setting and Rationale

The study was carried out at V and S pharmacy in Kireka which is located in Wakiso district. It is a private pharmacy located on Kireka-Kamuli Road and renders services to about 40 clients daily. The study setting was chosen because

it is the one where the research problem is found yet convenient for the researcher to do the study.

Study Population

The study population comprised all patients who were seeking medication from V and S pharmacy in Kireka during the period of data collection.

Sample Size Determination

This was a total of 40 patients or their caretakers seeking for medication from V and S pharmacy in Kireka.

The 40 participants were chosen as the study sample because they comprised of a number large enough to ensure that the researcher obtained enough data to fulfill her study objectives and give valid research. The number was also above the minimum recommended sample by UNMEB guidelines.

Sampling Procedure

Simple random sampling was used to select the study respondents. 40 papers with the word

"YES" written on them were folded and mixed with another 40 papers with the word "NO" written on each of them separately. These were put into a box from where each client visiting V and S pharmacy was requested to pick one piece of paper. Any client who picked a paper having the word "YES" written on it was asked for their consent and a questionnaire was administered to them. This procedure was repeated until all the 80 papers in the box were picked out of the box and exhausted.

Inclusion Criteria

All clients seeking medication from V and S pharmacy in Kireka during the period of data collection were eligible and therefore part of the study population.

Definition of Variables

Independent variables: This comprised knowledge of the dangers of SM and attitude towards SM among clients of V and S pharmacy.

Dependent variables: This comprised of practice of SM among clients of V and S pharmacy.

Research Instruments

The study instrument was a questionnaire consisting of both structured and semi-structured questions. The questionnaires were designed with guidance from the supervisor and pre-tested to reduce on ambiguity of some of its questions before it was used for the actual data collection.

Data Collection Procedure

Data was collected by distributing questionnaires to the selected study participants who could read and write on their own. These participants filled out their responses in the questionnaire before submitting it to the researcher. The questionnaires were immediately reviewed to see if they were filled and those found to be partially filled were handed back to the respective participants for completion before being re-submitted to the researcher.

The questionnaire was researcher administered to clients who could not read and write on their own. To achieve this, the researcher verbally administered the questionnaire to them as she filled their responses for them in their respective questionnaires.

Data management

Data was managed by the researcher herself. After data collection, the researcher kept the questionnaires in a safe lockable place to minimize access by unauthorized personnel as a way of ensuring safety, privacy, and confidentiality.

The questionnaires were also reviewed and summarized based on study themes before being entered into the computer for analysis.

Data Analysis

The results from the questionnaire were manually analyzed and entered into the computer using a computer program called Microsoft Excel, they were then presented in the form of tables, graphs, and pie charts.

Ethical considerations

This study was first approved by the administration of Lubaga Hospital Training Schools which then issued an introductory letter to the management of V and S Pharmacy. The pharmacy in charge then granted permission for the study to be conducted there. Consent was also obtained from each study participant before they were enrolled in the study. The study participants were further assured of confidentiality and their identity was kept anonymous by using study numbers instead of their names during data collection.

Results

Respondent's demographics

From table 1, shows that 26 (65.0%) of the study participants were female while 14 (35.0%) were male, 16 (15.0%) of the study participants had attained secondary level of education, 15 (37.5%) tertiary level of education, 6 (7.5%) primary level and 3 (40.0%) were completely illiterate. Majority shows that 24 (60.0%) of the study participants were single, 15 (37.5%) were married and 1 (2.5%) was widowed. Majority 23 (57.5%) of the study participants were aged 18 to 37 years, 8 (20.0%) were 38 to 57 years, 5 (12.5%) less than 18 years and 4 (10.0%) were above 57 years by age.

Table 1: Demographic data of respondents   **(n = 40)**

Variable	Status	Frequency	Percentage
Sex	Male	14	35.0
	Female	26	65.0
Educational attainment	Never went to school	3	40.0
	Primary	16	15.0
	Secondary	6	7.5
	Tertiary	15	37.5
Marital status	Married/cohabiting	15	37.5
	Single	24	60.0
	Widowed/divorced	1	2.5
Respondent's age	Less than 18 years	5	12.5
	18 to 37 years	23	57.5
	38 to 57 years	8	20.0
	58 years and above	4	10.0
	Total	**40**	**100**

Figure 1: Respondent's history of having heard about self-medication   **(n = 40)**

- Had ever heard about self-medication
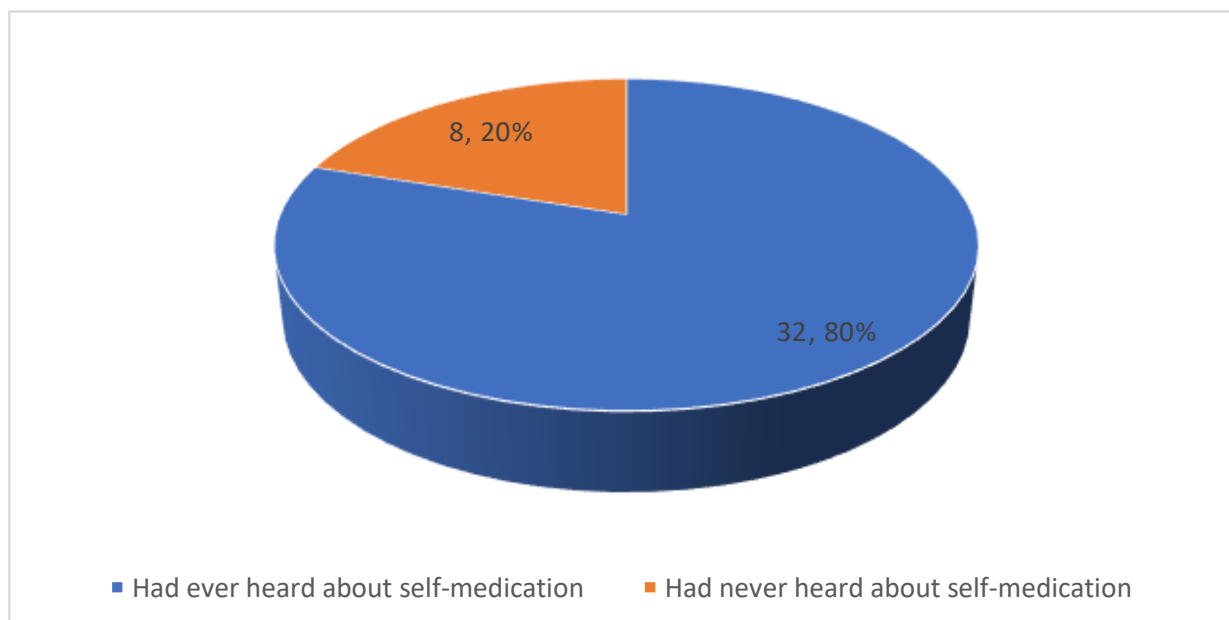- Had never heard about self-medication

Table 2: Participant's awareness about possibility of drug side effects, kidney and liver toxicity and drug resistance due to self-medication   (n = 40)

Variable	Status	Frequency	Percentage
Awareness about drug side effects	Yes	18	45.0
	No, though I have ever treated myself	15	37.5
	No, I have never treated myself	7	17.5
Self-medication can lead to kidney damage	Yes	17	42.5
	No	8	20.0
	Not sure	15	37.5
Self-medication can lead to liver disease	Yes	13	32.5
	No	11	27.5
	Not sure	16	40.0
Self-medication can lead to drug resistance	Yes	16	40.0
	No	8	20.0
	Not sure	16	40.0
	Total	**40**	**100**

Knowledge on the dangers of self-medication among clients of V and S pharmacy in Kireka, Wakiso district

Figure 1, shows that 32 (80.0%) of the study participants had ever heard about self-medication whereas 8 (20.0%) had never heard about it.

Table 2, majority 18 (45.0%) shows that study participants were aware of side effects of the drugs, 15 (37.5%) weren't aware of the side effects of drugs though they had self-medicated while 7 (17.5%) weren't aware of drug side effects and had never self-medicated themselves. 17 (42.5%) were aware of the fact that self-medication can lead to kidney damage/disease whereas 8 (20.0%) were not aware about the possibility of self-medication causing kidney disease. Majority 16(40.0%) of participants were not sure of the fact that self-medication can lead to liver disease, only 13 (32.5%) were aware of this fact. Participants 16(40.0%), 8(20.0%), 16(40.0%) were aware, not aware, not sure respectively, of the fact that self-medication can lead to drug resistance.

Figure 2, shows that 30 (75.0%) of the participants were aware of the fact that viral infections shouldn't be treated with antibiotics whereas 10 (25.0%) said viral infections should be treated with antibiotics.

Figure 2: Participant's awareness on viral infection being treated with antibiotics (n = 40)
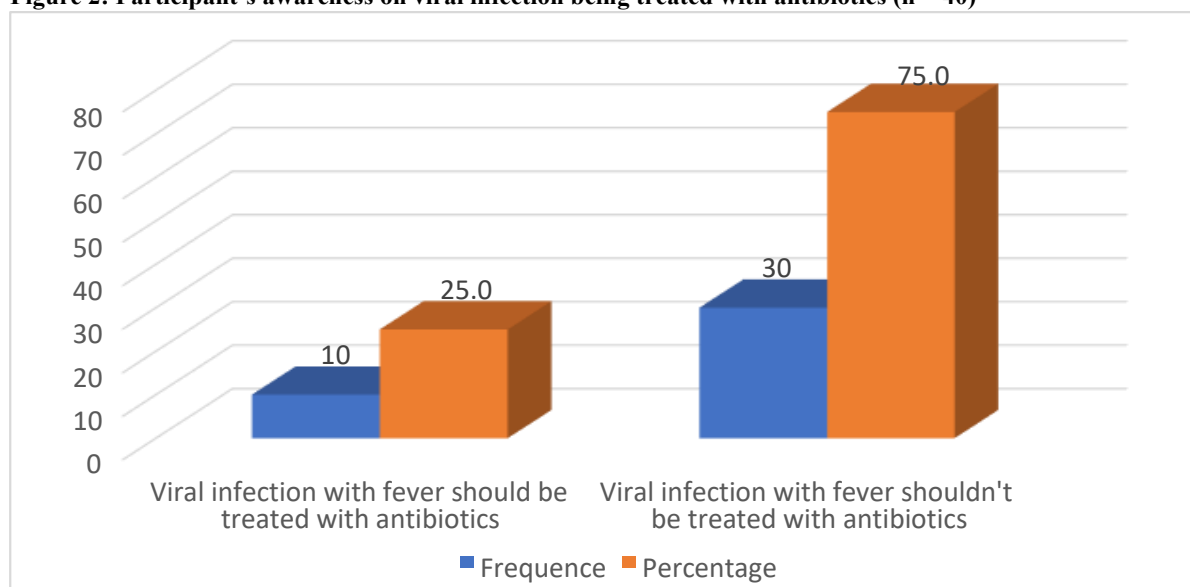

Table 3: Participants on safety of self-medication, course of action on failed treatment after self-medication, awareness about dosage and challenges of wrong dosing interval (n = 40)

Variable	Status	Frequency	Percentage
Is it safe to treat yourself such that you do not need to get treatment from the doctor?	Yes	9	22.5
	No	31	77.5
What would you do if the treatment you gave yourself failed?	Change to another treatment by myself	0	0.0
	Seek assistance of a friend	2	5.0
	Seek assistance of the health worker	38	95.0
Do you think that you know the correct doses of medicines you might wish to take?	Yes	9	22.5
	No	31	77.5
Is it bad when someone goes wrong on when to take a set of medicines by timing?	Yes	23	57.5
	No	17	42.5
	Total	**40**	**100**

Table 4: Participants' opinion on badness of self-medication overdose and importance of completing treatment courses (n = 40)

Variable	Status	Frequency	Percentage
Is it bad when one takes an overdose of any medicine they give themselves out of ignorance?	Yes	37	92.5
	No	3	7.5
Is it important to complete the course of a drug even when they feel better?	Yes	32	80.0
	No	8	20.0
	Total	**40**	**100**

Table 3, shows that 31 (77.5%) of the participants were aware that self-medication wasn't safe, and 9 (22.5%) considered it to be safe for themselves. Majority 38 (95.0%) of the participants would seek assistance of the health worker if self-medication failed, 2 (5.0%) would seek assistance of a friend and 0 (0%) would change to another treatment by themselves. Majority 31 (77.5%) participants confessed that they knew the correct doses of medicines they wished to take, 9 (22.5%) claimed to know the doses of the medicines they wished to take by themselves. Majority 23 (57.5%) said that not following the dosing interval was not good, and 17 (42.5%) said not following the dosing interval wasn't associated with anything bad.

Table 4, shows 37 (92.5%) participants agreed with the fact that it is bad to take medicine overdose due to ignorance during self-medication, then 3 (7.5%) disagreed with it. The majority 32 (80.0%) agreed with the fact that it was important to complete the course of a drug even when one felt better whereas 8 (20.0%) disagreed with it.

Discussion

Knowledge about self-medication among clients of V and S pharmacy in Kireka, Wakiso district

It was established that up to 32 (80.0%) of the study participants had ever heard about self-medication (Figure 1). This revealed high levels of awareness about this fact contrary to the findings of a study done by Almalki, et al. (2022) who instead found that only 49.3% of the study participants had previously heard about self-medication.

Less than half, 18 (45.0%) of this study's participants said they were aware of side effects of the drugs limited awareness about side effects of the drugs among the study participants which was worsened by the fact that 15 (37.5%) of the participants who had self-medicated weren't aware of the side effects of the drugs they had taken (Table 2). Similar findings were documented in a study done in Syria by Abdelwahed, et al. (2022) who also found that 57.2% of their study respondents were not aware of the side effects of the drugs they used to self-medicate.

More than two-thirds, 27 (67.5%) of the study participants were not aware or sure of the fact that self-medication could lead to liver disease also revealed that there was limited awareness about this fact among them which meant that they weren't knowledgeable about this fact (Table 2). A further finding that less than half, 17 (42.5%) of the study participants were aware of the fact that self-medication could lead to kidney disease showed that there was limited awareness about drug side effects on the kidney (Table 2). This study's findings agreed with those of a study done by Bennadi, (2014), who found that the majority of their study participants lacked knowledge about drugs' ability to cause hepatotoxicity, nephrotoxicity, hypersensitivity, and antimicrobial resistance.

More than half, 24 (60.0%) of the study participants were not aware or sure of the fact that self-medication could lead to drug resistance, a revelation of low levels of awareness and knowledge about this aspect of drug complications which could be worsened by self-medication (table 2). Better findings were documented in studies done in Harar, Bahir Dar, Namibia by Jifar, & Ayele, (2018), Tesfaye, (2017), and Pereko, et al. (2015) with a prevalence of 78.3%, 71.4%, and 72% respectively. However, lower results were documented in a study done in Jordan, where only 50% of the study participants agreed with the fact that improper use of antibiotics causes AMR (Darwish, et al. 2014).

Three-quarters, of 30 (75.0%) of the study participants were aware of the fact that viral infections shouldn't be treated with antibiotics (Figure 2). This revealed high levels of knowledge about this aspect of the study contrary to the findings of studies done by Geta, & Kibret, (2022), and AlYasseri, & Hussain, (2020), who found that 52.6% and 57.8% of their study respondents thought that viral infection with fever should be treated with antibiotics. Similar to this study's findings, 47.8% of respondents in Iraq reported that antibiotics treat viral infections whereas

70.2% did so in a study done in Kuwait (Awad, & Aboud, 2015), 35% in one done in the USA Carter, et al. (2016), and 66.4% of the population thought that antibiotics were effective against colds or coughs in Saudi Arabia (Abujheisha, & Al-Shdefat, 2017). Jain, et al. 2016) obtained contrary findings to those of this study when they found out that 68.6% of their study participants were of the view that antibiotics were effective against both viral and bacterial infections.

Over three-quarters, 31 (77.5%) of the study participants were aware that self-medication wasn't safe for them (Table 3). This revealed high levels of knowledge about this aspect of the study among the study participants as was the case in a Syrian study done by Abdelwahed, et al. (2022) who also found out that. 70.9% of their respondents considered SM to be unsafe.

The overwhelming majority, 38 (95.0%) of the study participants would seek assistance from the health worker if self-medication failed (Table 3). This revealed very high levels of knowledge towards seeking assistance after attempting SM which was better than the findings of Abdelwahed, et al. (2022) who instead found out that 54.9% of their study participants said that they would seek medical consultation for further investigation and management of SM failed.

Over three-quarters, 31 (77.5%) of the study participants confessed that they knew the correct doses of medicines they wished to take (Table 3). This revealed a high perceived level of awareness and knowledge about medicines the participants wanted to use. Slightly better findings were registered in a Lebanese study by Awada, et al. (2020) who found out that up to 83.7% of their respondents thought that they were knowledgeable about proper dosing of the self-medicated drugs though only 69.0% of them had adequate knowledge about it.

Slightly over half, 23 (57.5%) of the study participants knew that not following the dosing interval was not good (table 3). This finding revealed average awareness about this fact which showed that knowledge about this aspect of the study was also average which was better than the findings of a study done by Mehta, & Sharma, (2015) who found out that 28% of their study respondents had limited knowledge regarding hazards of change of drug's timing whereas 25.3% had little knowledge about it.

This study showed that 37 (92.5%) of the study participants agreed with the fact that it was bad to take medicine overdose due to ignorance during self-medication (Table 4). This was a manifestation of good levels of knowledge about overdose of medication. On the contrary, Mehta, & Sharma, (2015) found in their study that only 38.7% of their study respondents had some knowledge, 25.3% had little knowledge and 4% did not know the hazards associated with drug overdose.

The finding that over three quarters, 32 (80.0%) of the study participants agreed with the fact that it was important to complete the course of a drug even when one felt better showed that levels of knowledge were high about this aspect of the study (table 4). Contrary to this study, Mehta, & Sharma, (2015) found out that only 26.7% of their study respondents had quite a bit of knowledge, 25.3% had little knowledge and 6.7% had no knowledge at all about the benefits of completing doses of drugs.

Conclusion

The levels of knowledge about the dangers of self-medication among clients of V and S pharmacy in Kireka was high based on participant awareness that one needed to seek medical advice with failed treatment and drug overdose being dangerous. Awareness was also found to be high regarding SM being unsafe, confessed awareness of the right dose of drug intended to be used through SM and antibiotics not being used for treatment of viral infection. However, levels of knowledge were low about the general side effects of drugs, lack of awareness about liver and renal disease occurring from drugs that were registered, and drug resistance occurring because of SM.

Recommendation

The government of Uganda through its Ministry of Health should continue sensitizing community members through various mass media about the dangers of self-medication and emphasizing the need to seek professional advice before taking medication. This will minimize the occurrence of undesired effects of drugs.

Acknowledgment

List of Abbreviations

AMR: Antimicrobial resistance

OTC: Over-the-counter

SM: Self-medication

UNMEB: Uganda Nurses and Midwives Examinations Board

Source of funding

Conflict of interest

There was no conflict of interest declared.

Author Biography

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