

DETERMINATION OF INDIVIDUAL FACTORS CONTRIBUTING TO INCREASED MISUSE OF ANALGESICS AMONG ADULTS IN KIYUNGA HC IV, KIYUNGA TOWN COUNCIL, LUUKA DISTRICT. A CROSS-SECTIONAL STUDY.

Tracy Tendo*, Sania Nakasolo
Kampala School of Health Sciences

Page | 1

Abstract

Background

The misuse of analgesics is a rising public health concern, leading to significant morbidity and mortality. Various individual factors play a role. Understanding these factors is crucial for developing effective interventions. Therefore, this study seeks to assess the individual factors contributing to increased misuse of analgesics among adults in Kiyunga HC IV, Kiyunga town council, Luuka district.

Methodology

The study used a cross-sectional study with a simple random technique as a sampling technique on a sample of 50 respondents. Data was collected using questionnaires with semi-structured and open-ended questions written in English language, data was analyzed manually, and presented in a Microsoft computer program to generate figures and tables.

Results

The findings from individual factors contributing to increased misuse of analgesics among adults showed that 52% of the respondents had heard of the misuse before, 46.2% heard about the misuse from media with 69.2% of this misuse being self-medication. Of the respondents, 30% had misused analgesics and 80% misused them for pain relief. However, 70% had not misused analgesics before with 60% claiming they were aware of the danger.

Conclusion

The study revealed significant awareness of analgesic misuse among respondents. Many had heard about it, mainly from media sources. Most recognized self-medication as a common misuse method and identified pain relief as the primary motive. There was also substantial awareness of the dangers associated with misuse, indicating a good level of knowledge.

Recommendation

People need to seek advice from doctors for better diagnosis and therapy when it comes to prescriptions. This will help reduce the drug resistance and the side effects of the analgesics among some people that may come from misuse.

Keywords: Individual Factors, Misuse of Analgesics, Kiyunga town council, Luuka district.

Submitted: 2024-05-20 Accepted: 2024-08-08

Corresponding Author: Tracy Tendo*

Email: traciekean06@gmail.com

Kampala School of Health Sciences

Background of the study

About 91.8 million adults aged 18 or older were past-year users of prescription pain relievers in 2015, representing more than one-third (37.8 percent) of the adult population. About 11.5 million adults misused prescription pain relievers at least once in the past year, and the most commonly reported reason for their last misuse of a pain reliever was to relieve physical pain (63.4 percent). About 5.7 million adults misused prescription tranquilizers at least once in the past year. The most common reasons for misuse the last time were to relax or relieve tension (46.2 percent) and to help with sleep (21.2 percent). About 4.8 million adults misused prescription stimulants at least once in the past year. The most commonly reported main reasons for the misuse of stimulants among adults who misused stimulants in the past year were to help be alert

or stay awake (28.4 percent), to help concentrate (26.2 percent), and to help study (22.4 percent). About 1.4 million adults misused prescription sedatives at least once in the past year; the most common reason for the last misuse was to help with sleep (73.2 percent) (Lipari et al., 2013). Yla-Rautio H et al (2020), conducted a study on drug-related problems and pharmacy interventions in non-prescription medication with a focus on high-risk OTC medications where analysis of survey data shows that 21.4% of the population in Germany take one of the 5 most common NOA agents (i.e. aspirin, diclofenac, ibuprofen, naproxen, paracetamol) at least once a week while 4.5% use these analgesics regularly (i.e. 4 or more days per week) because of their availability. A cross-section population-based study on the prevalence of primary headache disorders in Saudi Arabia showed the

lifestyle factors associated with OTC analgesic overuse where 53.4% of the participants who worked used the drugs for more than 3 months compared to 41.9% of those who did not work. In addition, 52.4% of smoking was strongly associated with medication overuse (Al Jumah et al, 2020).

Tesfamariam S et al (2019), conducted a study on self-medication with OTC drugs, the prevalence of risky practices, and its associated factors in pharmacy outlets of Asmara, Eritrea which show that the risk of inappropriate use of drugs is strongly enhanced by self-medication compared to prescribed use and this increased by 57% from 2003 to 2012. The cross-sectional study also shows that of the 609 adults in Eritrea, 94% used OTC drugs especially analgesics (34%) for 1 month and they were misused in the process due to their easy accessibility (34%), perception of being safe and tolerable (15%), time-saving (24%), money-saving (6%), ability to treat minor ailments (4%) and getting quick relief (4%). Knowledge about the drugs was however obtained from friends/family (21%), internet/mobile applications (3%), pharmacists (35%), and medical doctors (27%). Beyene KGM et al (2018), conducted a study on self-medication practice and associated factors among pregnant women in Addis Ababa, Ethiopia where analysis of survey data shows that of the 617 pregnant women, 27% used OTC drugs especially paracetamol (49%), ibuprofen (5%), diclofenac (5%) and aspirin (3%) for their current pregnancy. These were mainly obtained from pharmacy/drug stores (77%), family/friends or neighbors (10%), leftovers (19%) and health facilities (1%). However, they were easily used and misused due to their easy access (71%), previous experience (21%), cheaper (18%), disease not serious (55%), and saving time (27%). A cross-sectional study based on factors influencing the use of analgesics among construction workers in the Ga-East municipality of the greater Accra region, Ghana indicated that of the 206 construction workers, 97% used OTC drugs especially paracetamol (37%) and ibuprofen (10%) to treat muscle and joint pain, headaches, stress and fatigue. These were mainly obtained from pharmacy stores (58%), chemical stores (86%), drug peddlers (4%) and friends (12%). Because of their ability to induce sleep (27%), and relieve aches and pains (66%), they were highly misused (Badzi CD et al, 2017). Therefore, the objective of this study is to assess the individual factors contributing to increased misuse of analgesics among adults in Kiyunga HC IV, Kiyunga town council, Luuka district.

Methodology

Research design

This study employed descriptive cross-sectional research to quantify the distribution of certain variables in the study population at one point in time. The design helped the researcher to systematically collect and analyze the data to give a clear picture of the problem at hand.

Study area

Kiyunga HC IV is located in Kiyunga town council, Luuka district (Eastern part of Uganda). Kiyunga has an elevation of 1135.56 meters with approximately 141.9 Km/3.20mins from Kampala. The health center is composed of adults from different ethnic groups with an estimated of 1000 population.

Study population

The study target population was adults of Kiyunga HC IV, Kiyunga town council, Luuka district present during the period of data collection.

Sample size determination

The sample size was determined using the standard formula of QR/O (Burton, 1965).

Where;

Q= total number of days spent in data collection R=

Maximum number of respondents interviewed per day

O Maximum time is taken by the interviewer.

Therefore,

R= 5 Respondents

Q= 5 days

O= 1/2 Hours

QR/O= 5X5/1/2

25X2= 50 Respondents

Therefore, the researcher used a sample size of 50 respondents.

Dependent variable

The dependent variable was the misuse of analgesics.

Independent variable

Independent variables were factors contributing to increased misuse of analgesics.

Inclusion criteria

This was composed of adults of Kiyunga HC IV who were present during the period of data collection, capable and voluntarily willing to provide information.

Exclusion criteria

Adults of Kiyunga HC IV who were present during the period of data collection but were not capable and voluntarily willing to provide information were excluded from the study.

Sampling technique

A simple random sampling technique was used to select respondents. The technique was preferred because it accorded each member of the group to have an equal chance of participation and therefore, helped the researcher to get the statistical analysis related to sample distributions, hypothesis testing, and sample size.

Data collection method

A semi-structured and open-ended questionnaire written in the English language to collect data from respondents and later translated into the local language (Lusoga) was

used in data collection. The questionnaire was designed based on the specific objectives of the study. The questionnaire was preferred over other methods because it is relatively a simple method of collecting data.

Pre-testing of the questionnaire

The questionnaire was pre-tested in Kiyunga HC IV among 15 respondents to fill it in a time relapse of one day to establish consistency in responses. The pre-tested instrument produced consistent scores and it was repeatedly measured under the same group of individuals. The results from the pre-test were used to modify the items in the instruments.

Data collection procedure

After approval of the research proposal; an introductory letter from the KSHS research committee to the study area seeking for permission to carry out the study was written. When permission was granted, two research assistants with good knowledge of the local language were trained on research methodology and study objectives before data collection. The researcher was guided by some hospital health team and DHO members through the hospital to access of respondents to ease the collection process. All the respondents who fulfilled the inclusion criteria were interviewed in a quiet and private place, preferably at their homes or workplaces. This procedure was repeated until the required sample for the study was attained.

Quality control

The validity and reliability of the study were ensured by expert judgment technique, where by the data collection tool/ instrument was submitted to the supervisor to check for its accuracy before using it to collect data.

The researcher designed the data collection instruments without providing the options for the names to increase the confidentiality of respondents.

Data collection was conducted under maximum strict guidelines such as observing SOPs to prevent respondents from being exposed to infections

Data analysis and presentation

From the field, data was manually sorted, edited, and arranged according to the themes based on the specific objectives of the study to generate frequency and percentages using a scientific calculator. Data was later presented in a Microsoft Excel computer program to generate figures and tables for easy interpretation of the study findings.

Ethical considerations

Ethical consideration involves an understanding of the ethical code and guidelines for protecting the rights of research subjects. Before the collection of data for the study, permission to carry out the research was sought from the DHO of Kiyunga town council, using an introductory letter from KSHS addressing it to the DHO requesting permission to conduct the study on factors contributing to increased misuse of analgesics among adults in Kiyunga HC IV, Kiyunga town council, Luuka district. When permission was granted, the researcher introduced and explained the study objectives to the participants; a written consent form was presented and signed by each respondent before participation in the study. Respondents were free to withdraw from the study at any time they wished without any conditions and information obtained from the respondents was kept confidential.

Results

Table 1: Shows the distribution of respondents according to demographic data N 50

Age (Years)	Frequency (f)	Percentage (%)
18-25	20	40
25-35	12	24
36-45	3	6
46 & above	15	30
Total	50	100
Sex		
Male	15	30
Female	35	70
Total	50	100
Level of Education		
Never Went to School	12	24
Primary	12	24
Secondary	18	36
Tertiary institution/University	8	16
Total	50	100
Marital Status		
Single	21	42
Married	26	52
Separated	0	0
Widowed	3	6
Total	50	100
Religion		
Protestant	32	64
Catholic	9	18
Muslim	6	12
Others	3	6
Total	50	100
Tribe		
Musoga	45	90
Muganda	0	0
Mugwere	5	10
Others	0	0
Total	50	100
Occupation		
Unemployed	20	40
Employed	9	18
Self-employed	21	42
Total	50	100

The study revealed that most of the respondents 40% were within the age bracket (18-25) years whereas the least (6%) were within (36-45) years.

Findings from the study showed that more than half of the respondents 70% were female whereas the least (30%) were male.

In addition, the majority of respondents 36% had attained a secondary level of education while the minority (16%) attained a tertiary institution/ university level of education.

The study also showed that most of the respondents 52% were married whereas the minority (6%) were widowed.

In regards to religion, the highest percentage of the respondents 64% were Protestants while the least (6%) were in the others category for example the born-again.

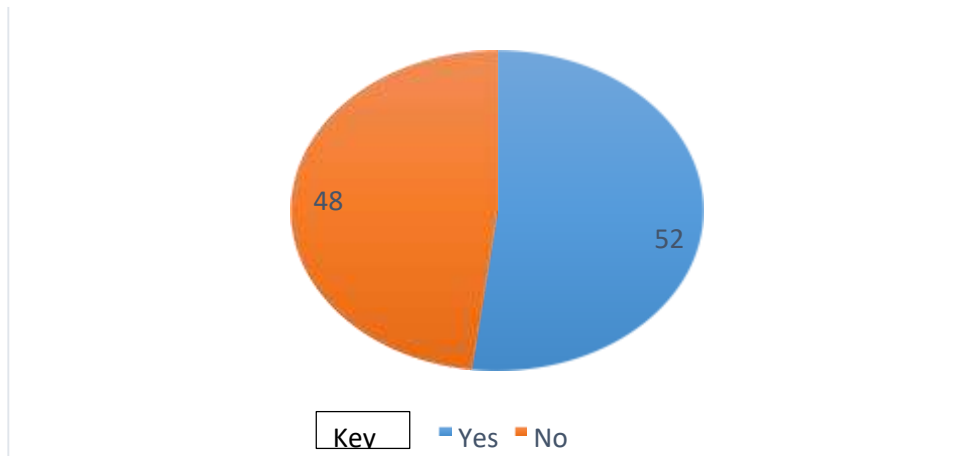
Only two tribes were recorded in the findings of which the Basoga had the highest percentage (90%) while 10% were Bagwere.

Lastly, in terms of occupation, the highest number (42%) were self-employed while the least (18%) were employed.

Individual factors contributing to increased misuse of analgesics among adults

Figure 1: Shows the percentage distribution of respondents on whether they had ever heard of analgesic misuse

N=50



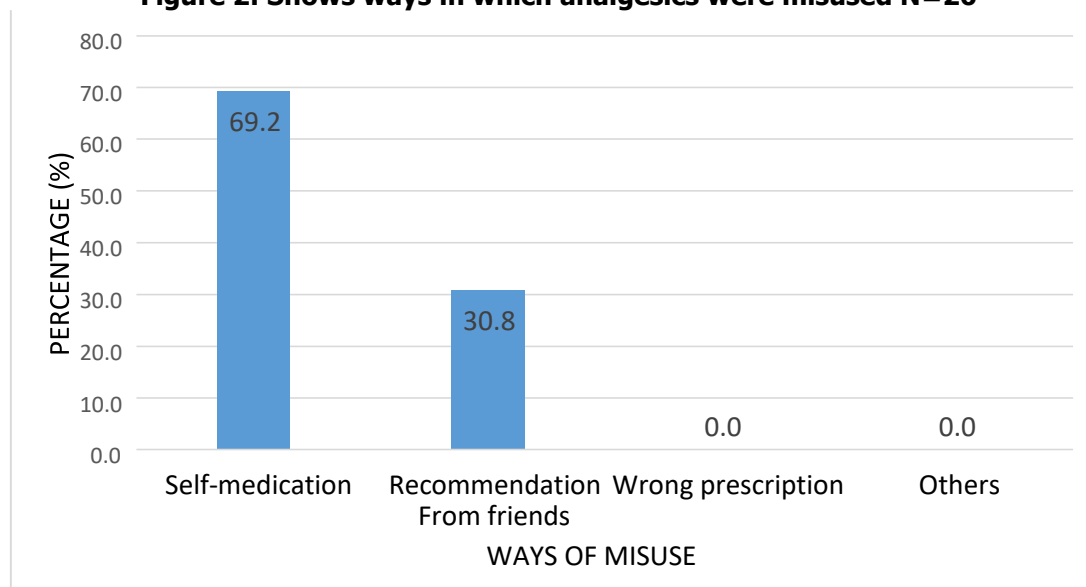
From the figure 1, 52% of the respondents heard about analgesics misuse while 48% had not heard of the misuse.

Table 2: Shows the distribution of respondents according to where the information about analgesics misuse was obtained N=26

SOURCE OF INFORMATION	FREQUENCY (f)	PERCENTAGE (%)
Media	12	46.2
Neighbors	9	34.6
Local Council	3	11.5
Others	2	7.7
Total	26	100.0

From the table 2, 46.2% of the respondents got the information about analgesics misuse from the media while 7.7% got the information from other sources like medical school.

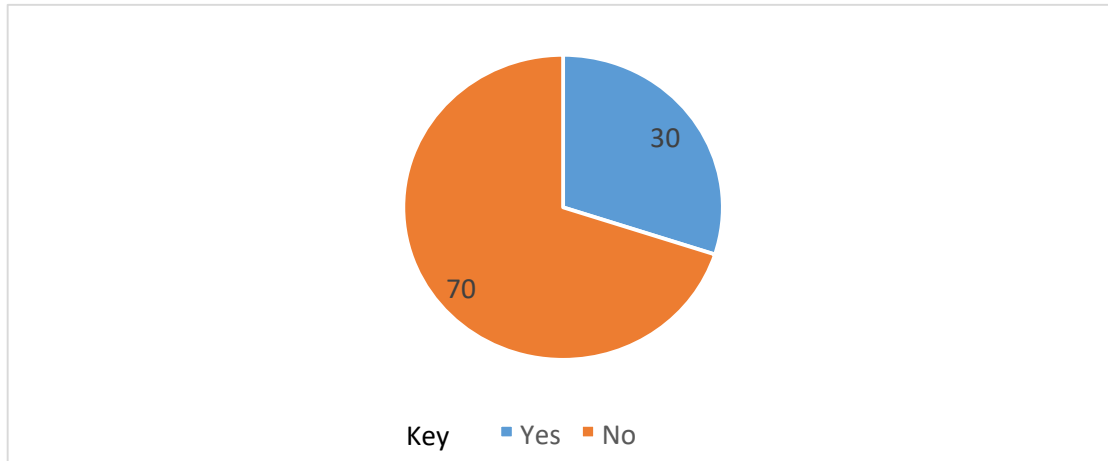
Figure 2: Shows ways in which analgesics were misused N=26



The figure 2 shows that 69.2% of the respondents misused analgesics through selfmedication whereas 30.8% got the recommendation from friends.

Figure 3: Shows the percentage distribution of respondents according to their history of analgesic misuse

N=50



This figure indicates that 70% of the respondents had not misused analgesics before while 30% had ever misused.

Table 3: Shows the distribution of the respondent's reasons for analgesics misuse N=15

REASONS FOR MISUSE	FREQUENCY (f)	PERCENTAGE (%)
Pain Relief	12	80
Feel good or get high	0	0
Relaxation	0	0
Others	3	20
Total	15	100

As shown in Table 3, 80% of the respondents that had misused the analgesics before had used them for pain relief while 20% of the respondents misused them for other reasons like provision of sleep.

Table 4: Shows the distribution of respondent's reasons for not misusing analgesics N=35

REASONS FOR NOT MISUSING	FREQUENCY (f)	PERCENTAGE (%)
Awareness of dangers	21	60.0
Good Parental Influence	9	25.7
Attended Drug Misuse Awareness Campaign	5	14.3
Others	0	0.0
Total	35	100.0

From Table 4, 60% of the respondents had not misused analgesics because they were aware of the dangers whereas 14.3% had attended a drug misuse awareness campaign.

Discussion

About study findings, 52% of the respondents had never heard about the misuse of analgesics of which the majority of the respondents 46.2% obtained the information from media. This implies that a substantial number of study participants were aware of the study background of analgesic misuse because of easy access to media like

radios where they can easily obtain the information. The study results were in agreement with Tesfamariam S et al (2019), where results showed that 3% of the respondents obtained knowledge from the internet/ mobile applications though the highest percentage was from pharmacists 35%.

The study also revealed that most of the respondents 69.2% misused analgesics through self-medication. This denotes a direct relationship between sources of information and occupation since 42% were self-employed and so could easily have access to the drugs. These results were in agreement with Beyene KGM et al

(2018), where results showed that analgesics were misused because of easy access 71%.

According to the study findings, 30% of the respondents misused analgesics of which 80% gave a response of pain relief as the reason for their misuse. This could be a result of overwork load and the perception of the drug being safe and tolerable. The study findings were in agreement with NSDUH (2018), where results revealed that half of the respondents 63.6% misused analgesics to relieve pain. However, 70% of the respondents had never misused analgesics of which 60% gave the reason of being aware of the dangers. This denotes a direct relationship between sources of information and the level of education where 36% of the respondents had attained a secondary level of education and hence had some little knowledge on the dangers of misuse of drugs. These study results were in disagreement with Tesfamariam S et al (2019), where results showed that 15% of the respondents misused analgesics because of the perception of being safe and tolerable.

Conclusion

The study established individual factors and discovered that respondents exhibited some knowledge of analgesic misuse since 52% had ever heard about the misuse of which 46.1% obtained the information from media, 69.2% knew that self-medication was a way in which analgesics were misused, 80% knew that pain relief was the main reason for misuse, and 60% were aware of the dangers of analgesic misuse.

Recommendation

People need to seek advice from doctors for better diagnosis and therapy when it comes to prescriptions. This will help reduce the drug resistance and the side effects of the analgesics among some people that may come from misuse.

Acknowledgment

I wish to thank the Almighty God for his favor, grace, and care that has enabled me to make it this far.

I extend special thanks to my supervisor Ms. Nakasolo Sania for the guidance, support, encouragement, and inspiration that was offered free from her during my research and preparation for the report.

I would like to thank my parents Mr. and Mrs. Bagole for their support and prayers throughout my educational journey. They made this possible for me.

Interactions with my course-mates especially Nanyonga Hope, Namutebi Hashura, Ssempijja Brandon, Nanyombi Nina, and Kasimbi Rodin always created an environment full of positivity that nurtured this imagination that has turned into a reality.

I salute all the individuals that I may have omitted.

Thank you all

List of Abbreviations

DHO: District Health Officer

EMHSLU: Essential Medicine Health Supplies List for Uganda

EMLU: Essential Medicine List of Uganda

GIT: Gastrointestinal tract

HMIS: Health Management Information System

HTN : Hypertension

MOH: Ministry of Health

NOA : Non Opioid Analgesics

NSAIDs: Non-steroidal anti-inflammatory drugs

NSDUH: National Service on Drug Use and Health

OTC: Over-the-counter

SOPS: Standard Operating Procedures

UK: United Kingdom

UNODC: United Nations Office on Drugs and Crime

US: United States

USA: United States of America

WDR: World Drug Report

WHOEML: World Health Organization Essential Medicine List

Source of funding

This study was not funded

Conflict of interest

No conflict of interest declared

References

1. Lipari, R. N., Williams, M., & Van Horn, S. L. (2013). Why Do Adults Misuse Prescription Drugs? In *The CBHSQ Report*. Substance Abuse and Mental Health Services Administration (US). <http://www.ncbi.nlm.nih.gov/books/NBK458284/>
2. Beyene KGM, Beza SW (2018). Self-medication practice and associated factors among pregnant women in Addis Ababa, Ethiopia. *Tropical Medicine and Health*, 10.
3. Al Jumah, M., Al Khathaami, A.M., Kojan, S., Hussain, Thomas, H., & Steiner (2020). The prevalence of primary headache disorders in Saudi Arabia: A cross-sectional population-based study. *J. Headache Pain*, 11.
4. Badzi CD, Ackumey MM (2017). Factors influencing the use of analgesics among construction workers in the Ga-Eastmunicipality of the Greater Accra region, Ghana. *Ghana Medical Journal.*, 156-163.
5. Tesfamariam S, Anand IS, Kaleab G (2019). Self-medication with over-the-counter drugs, the prevalence of risky practice and its associated factors in pharmacy outlets of Asmara, Eritrea. *BMC Public Health*, 159.
6. Yla-Rautio H, Siissalo S, Leikola S (2020). Drug-related problems and pharmacy interventions in non-prescription medication, with a focus on high-risk over-the-counter medications. *Int J Clin Pharm*, 786-95.

PUBLISHER DETAILS

Page | 8

SJC PUBLISHERS COMPANY LIMITED



Category: Non Government & Non profit Organisation
Contact: +256 775 434 261 (WhatsApp)
Email: info@sjpublisher.org or studentsjournal2020@gmail.com
Website: <https://sjpublisher.org>
Location: Scholar's Summit Nakigalala, P. O. Box 701432, Entebbe Uganda, East Africa