

Practices towards post-exposure prophylaxis among clinical officer students in Kampala School of Health Sciences, Wakiso District. A cross-sectional study.

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ABSTRACT

Page | 1 **Background:**

Post-exposure prophylaxis for exposed individuals has been associated with varying practices among health practitioners across the world. The study aims to assess practice towards Post Exposure Prophylaxis among clinical officer students in Kampala School of Health Sciences, Wakiso district.

Methodology:

The study employed across sectional study design with a simple random sampling technique. Data was collected on a sample size of 50 respondents using semi-structured questionnaires written in the English language with open and closed-ended questions. Data analysis was done manually using tally sheets, pens, and paper, and entered in excel computer program and presented in tables and figures.

Results:

More than half (58%) of the respondents were single, the majority of the respondents (70%) were from year 3, (30%) of the respondents were in year 2. Regarding whether respondents consider themselves to be at risk of HIV acquisition at their workplaces/sites. All the respondents (100%) considered themselves to be at risk of HIV acquisition. Most of the respondents (40%) said they can wash the site immediately with soap or mild disinfectant. The majority of the respondents (60%) had never been exposed to HIV, (40%) had ever been exposed to HIV. Regarding the distribution of respondents who were initiated on PEP after exposure, all 20 (100%) were initiated on PEP. The majority of the respondents (85%) finished the dose, (15%) did not finish.

Conclusions:

Participants possessed fair practice towards post-exposure prophylaxis to HIV since all the respondents considered themselves to be at risk of HIV acquisition at their workplace/sites.

Recommendations:

The tutors of Kampala school of health sciences should teach the clinical officer students on what to do immediately after exposure, and this will reduce the likelihood of being diseased after exposure.

Keywords: Practice towards Post Exposure Prophylaxis, Risk of HIV acquisition, Clinical officer students.

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Background

Post-exposure prophylaxis for exposed individuals has been associated with varying practices among health practitioners across the world. In a high-endemicity setting, a study by Leopold Ndemnge Aminde, Noah F Takah, Jean Jacques N Noubiap et al (2015) among clinical medical students on awareness and low uptake of post-exposure prophylaxis for HIV results showed that among 154 participants, 4.9% of 81 who reported occupational exposure received PEP. In India, findings by Sumit Kumar, Gaurav Mishra, Vinay Kumar Gupta (2019) among BDS Interns on knowledge and Practice of post-exposure prophylaxis results showed that among 274 participants, 53.3% were pricked accidentally by infected instruments, 18% of these went for the right way of PEP.

An assessment in Bhutan by Kezang Tshering, Kinzang Wangchuk, and Zimba Letho (2020) among nurses on

knowledge, attitude, and practice of post-exposure prophylaxis results showed that among 221 participants, 43% had been exposed to needle stick injuries and splashing of blood/bodily fluids, and only 2.1% took PEP and completed it for 28 days. In Lahore, findings by Gurdeep Singh, Mansur UD Din Ahmed, Shazia Muneer et al (2015) among health care professionals on knowledge, attitude, and practice towards post-exposure prophylaxis for HIV results showed that among 609 participants, 73% had a poor practice. In Ethiopia, a study by Betelhem Anteneh, Sewunet Admasu Balechew, Alem Endeshaw et al (2019) among medical and health science students on knowledge, attitude, and practices on the antiretroviral-based HIV post-exposure prophylaxis (PEP) results showed that among 220 participants, 16.8% needed HIV PEP, and of these, only 48.6% took PEP, and only 50% completed the course. The study aims to assess practice towards Post Exposure

Prophylaxis among clinical officer students in Kampala School of Health Sciences, Wakiso district.

METHODOLOGY

Study design

A cross-sectional descriptive research design in nature was used in this study. The design was considered favourable because it helped the researcher to use various survey methods to gather quantitative data within a reasonable period of time.

Study area

Kampala School of Health Science is a private school located in Buloba, Semunyanya, Wakiso district, approximately 25 km from Kampala. The school was founded with four years' development plan, which started in 2013 as a clinical school offering a diploma in clinical medicine and community health. The school started offering courses like diploma in biomedical engineering, diploma in HIV/AIDS counseling, diploma in Public health, certificate in pharmacy, diploma in medical records and health informatics, certificate in medical records and health informatics and other courses. Kampala School is accredited by the Allied Health Professions Council, the National Council for Higher Education, and the Uganda Business and Technical Examinations Board. The school has a total population of 537, comprising male and female students. The school takes an obligation to attach its students to different hospitals in Uganda, like Butabika National Referral, Kayunga Regional Referral, Kawolo General Hospital, Rubaga Hospital, and Wakiso Health Centre IV for practicum every semester.

Study population

The study population refers to a large group of people possessing one or more characteristics in common on which a research study focuses. Therefore, the study targeted a population of clinical officers who attended hospital practicum and were present during the period of data collection in the selected area of study.

Sample size determination

The sample size was determined using Burton's formula (1965)

$$\text{Sample size (n)} = QR/O$$

Where,

Q- Total number of days taken for data collection

R- Maximum number of respondents who were interviewed per day

O- Maximum time taken on each respondent per day.

Values: Q= 10 days

R=5 respondents.

O=1 hour

Therefore, $n = QR/O$

$$N = (10 \times 5) / 1$$

=50 Respondents

Therefore, 50 respondents were used in the study.

Study variables

Dependent Variable

The dependent variable in this study was post-exposure prophylaxis.

Independent Variable

Independent variables were knowledge, attitude, and practices towards post-exposure prophylaxis among clinical officer students.

Selection criteria

Inclusion criteria

This was composed of clinical officer students who went on hospital attachments by the school, which included students of the second year and third year of the Kampala School of Health.

Scientists who were present during the period of data collection.

Exclusion criteria

Clinical officer students of Kampala School of Health Sciences who were present during the period of data collection, but did not attend the hospital attachments, were excluded from the study.

Sampling technique

A simple random sampling technique was used to select respondents from the source population. This technique was preferred because it ensures freedom from human bias, and each member of the target population had an equal and independent chance of being included.

Data collection tool

A semi-structured questionnaire was designed and used by the researcher to collect data from respondents. The questionnaire was designed according to the specific objectives of the study with open and closed questions, written in English. The questionnaire was preferred because it was suited to collect data from a larger sample, considering the nature of the study population.

Pretesting of the questionnaire

For uniformity of the data collection, pretesting of the questionnaire was done among 15 clinical officer students in Kampala School of Health who attended hospital practicum,

in order to ensure that questions were easily understood by all the respondents, and the pretested instruments helped to identify questions that might have caused ambiguity and contradiction.

Data collection procedure

A permission letter was obtained from the Principal of Kampala School of Health Sciences. The researcher was then granted permission to collect data from the institute. The researcher was assisted by a trained research assistant who was knowledgeable in the field of research. After the data was collected, it was checked for completeness and accuracy. The questionnaires that were not completed or correctly filled out were completed before the respondents left. The forms were then kept in a locked cupboard so as to maximise confidentiality and ensure access to the research team only.

Quality control

The right respondents were selected through the inclusion and exclusion criteria. All activities regarding data collection were done under the monitoring and supervision of the research assistants. The research team met after data collection to review the collected data and cross-check the filled questionnaires for correctness and completeness.

Standard operating procedures for coronavirus were also followed and maintained for the purpose of protecting the study participants and data collectors from risks of coronavirus.

Therefore, quality control was done to ensure the accuracy and validity of the data collected.

Data analysis and presentation

Data was analysed manually using tally sheets and entered into a computer using the Microsoft Excel computer program to generate tables, pie charts, and bar graphs for easy presentation of findings.

Ethical considerations

The researcher introduced the topic, purpose, and significance of the study to the respondents. The respondents were assured of confidentiality in the study as no names were used, and thereafter agreed to sign a consent form. No respondent was forced to participate in the study. Each respondent was interviewed alone, and information got from any respondent was not shared with other colleagues. The data collected was kept in a locked cupboard.

Results

Demographic data.

Table 1 shows the distribution of respondents according to demographic data.

Variables	Response	Frequency (f)	Percentage (%)
Age of respondents	20-25	26	52
	26-35	16	32
	>35	8	16
Total		50	100
Sex	Male	28	56
	Female	22	44
Total		50	100
Marital status	Single	29	58
	Married	8	16
	Cohabiting	13	26
Total		50	100
Year of study	Year 2	15	30
	Year 3	35	70
Total		50	100

Table 1, more than half (52%) of the respondents were within the age range of 20-25 years, while the least (16%) were above the age of 35.

In regard to sex, the study found that more than half (56%) of the respondents were males, and the least (44%) were females.

The study discovered that more than half (58%) of the respondents were single, while the least (16%) were married.

The study further revealed that the majority of the respondents (70%) were from year 3, whereas the least (30%) of the respondents were in year 2.

Practices towards post-exposure prophylaxis among clinical officer students.

Regarding whether respondents consider themselves to be at risk of HIV acquisition at their workplaces/sites. All the respondents (100%) considered themselves to be at risk of HIV acquisition.

Figure 1: Shows the distribution of the respondents according to what they can do immediately after exposure (N=50)

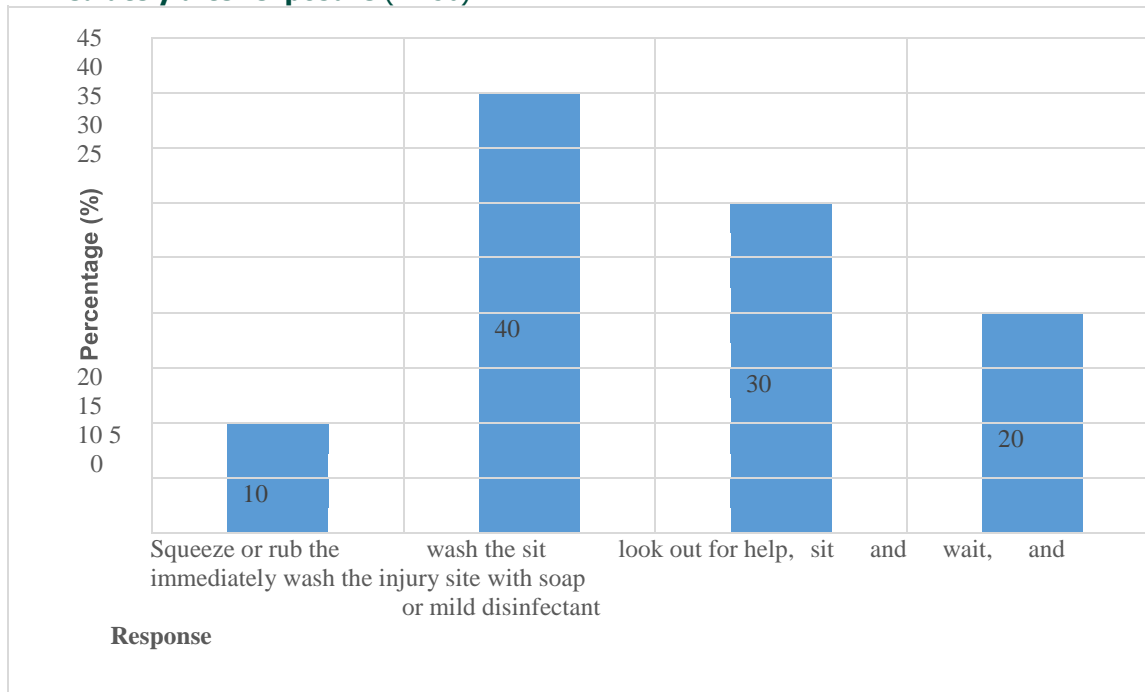
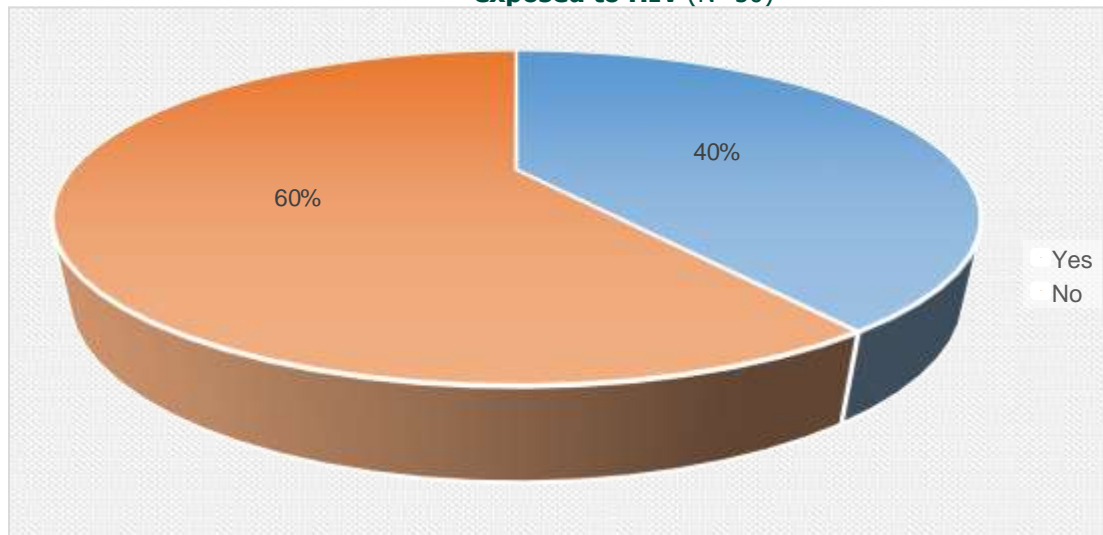


Figure 1, most of the respondents (40%) said they can wash the site immediately with soap or mild disinfectant, whereas the least (10%) said that they sit and wait.

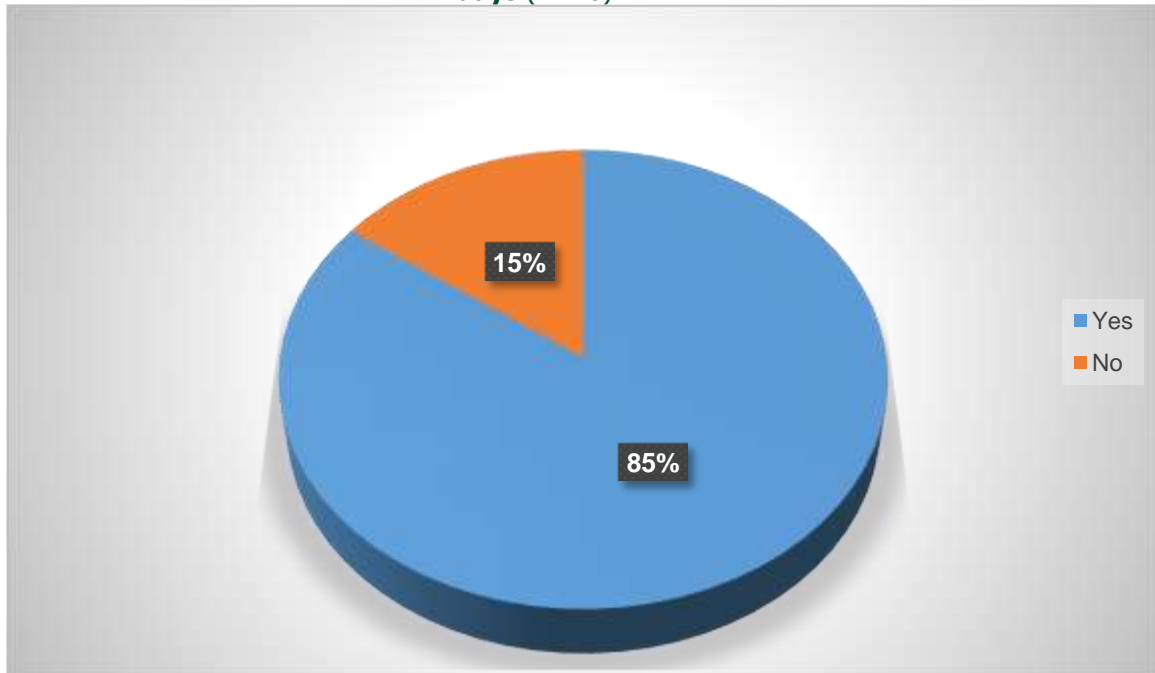
Figure 2: Shows the distribution of the respondents according to whether they had ever been exposed to HIV (N=50)



The figure revealed that the majority of the respondents (60%) had never been exposed to HIV, and the least (40%) had ever been exposed to HIV.

Regarding the distribution of respondents who were initiated on PEP after exposure, all 20 (100%) were initiated on PEP.

Figure 3: Shows the distribution of respondents according to who finished the dose for 28 days (N=20)



From Figure 3, the majority of the respondents (85%) finished the dose, whereas the least (15%) did not finish.

Discussion

From the study findings, all of the respondents (100%) considered themselves at risk of HIV acquisition at their workplace/sites. This clearly implies that all respondents are aware of the risk of HIV acquisition according to the nature of their work/occupation. The study results were consistent with Leopold Ndemnge (2015), where results showed that 96.1% of respondents considered themselves to be at risk of HIV acquisition at their workplace.

Findings from the study revealed that the least of the respondents (40%) had ever been exposed to HIV. This could be as a result of the fact that most students are aware of the protective gears during their work and therefore, were most likely to have protected themselves against exposure to HIV. The study findings were in disagreement with Sumit Kumar et al (2019), where findings showed that 53.3% of the respondents had ever been exposed.

The study revealed that the least of the respondents (40%) knew what to do immediately after exposure. This signifies poor practice towards post-exposure prophylaxis. Results from the study were in agreement with Kezang Tshering et al (2020), where only 30.3% reported washing the exposed area immediately with running water.

In view of the study results, all the respondents (100%) who had been exposed to HIV were initiated on PEP. This

indicates a good practice of the respondents towards PEP. The study findings were in disagreement with Gurdeep Singh et al (2015), where 73.0% who were exposed had a poor practice towards PEP for HIV. The majority of the respondents (85%) who had been exposed to HIV finished the dose for 28 days. This indicates a good practice of the respondents towards PEP. The study findings were in line with Betelhem Atenah et al (2019), where 75% of the students completed the prescribed drug of PEP for 28 days.

Conclusions

The researcher noticed that study participants possessed fair practice towards post exposure prophylaxis to HIV since all the respondents considered themselves to be at risk of HIV acquisition at their work place/sites, (40%) had ever been exposed, (60%) didn't know what to do immediately after exposure, (40%) of the exposed were all initiated on PEP and of these only (85%) finished the dose for 28 days.

Study limitations

Some respondents didn't have enough time to fill out the whole questionnaire due to more time required for the longer study.

The study encountered financial constraints in running the study since research is a lengthy process.

The study faced a problem of bias of the respondents since it is a sensitive study, as some never wanted to be involved in the study.

Recommendations

The tutors of Kampala school of health sciences should teach the clinical officer students on what to do immediately after exposure, and this will reduce the likelihood of being diseased after exposure.

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Conflict of interest

The author did not declare any conflict of interest.

Data availability

Data is available upon request.

Author contribution

Lovinsa Nakasolya collected data and drafted the manuscript of the study
Mubangizi Prosper supervised the study

Author biography

Lovinsa Nakasolya is a student of a diploma in Clinical Medicine and Community Health at Kampala School of Health Sciences.

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