

Practices and Awareness among Nurses in Medical College towards Post Exposure Prophylaxis of HIV

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Abstract

Background: Hospital staffs, especially the nurses who have direct contact with patients and body substances are at higher risk of occupational hazards.

Objectives: To assess the knowledge and practice regarding post-exposure prophylaxis of HIV among the nurses and to find out the association between Knowledge and selected demographic variables.

Methods: The study was conducted among the nurses working in medical-surgical units of GMC, Orai. 80 Nurses working in medical and surgical units were selected by stratified random sampling technique. Data were collected by using a semi-structured questionnaire. Chi-square was used to find out the association.

Result: The majority of the respondents fall in the group of 20-25 years, mean age=24.28, 81.2 % were staff nurses. Regarding the knowledge about PEP, 87.5 % knew the meaning of post-exposure prophylaxis of HIV. 81.2 % had knowledge regarding first aid for occupational exposure.

Conclusion: Knowledge regarding PEP was found to be satisfactory in the majority of respondents but the practice was found to be less.

Keywords: Knowledge, Practices, HIV, Post Exposure Prophylaxis (PEP), AIDS,

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Introduction

AIDS is far more than a health crisis, it is a threat to the development itself' [1]. The global AIDS epidemic continues to grow and there is concerning evidence that some countries are seeing resurgence in new HIV infection rates which were previously stable or declining [2]. PEP is a medical response given to prevent the transmission of pathogens after potential exposure. PEP for HIV refers to a set of comprehensive services to prevent HIV infection in exposed individuals. These services include, first aid care, counselling and risk

assessment, HIV testing based on informed consent, and depending on risk assessment, the provision of short-term (28 days) antiretroviral (ARV) drugs, with follow-up and support [3]. After the evaluation, health care workers should provide counselling on risk-reduction behaviour to the exposed person regardless of how the individual was exposed, and whether or not antiretroviral (ARV) drugs will be recommended for PEP, as such, counselling can reduce the risk of future exposures [4]. With the increasing number

of HIV-positive clients in the eastern region of Uttar Pradesh and nurses being at high risk of occupational transmission of HIV the investigator felt the need to assess the knowledge and practice regarding PEP of HIV among the nurses.

Material and Methods

Research design: Descriptive study design.

Research setting: The study was conducted among the nurses working in medical-surgical units of GMC, Orai (UP)

Sample: Nurses working in the medical unit I, II, III and surgical units I, II, III, Who fulfil the set selection criteria, were included in this study.

Sample size: 80 nurses were included in the study.

Sampling technique: Population proportionate Stratified sampling technique was used to select the study subject. Two strata were made, one medical and one surgical unit. From both the strata using the population

proportionate method 40 nurses were selected from medical units and 40 were selected from the surgical units randomly.

Research instrument: Semi-structured questionnaire was used to find out the demographic profile along with the knowledge, and practices of nurses regarding post-exposure prophylaxis of HIV. Pre-testing of the tool was done among 10 % of the total subjects. A detailed list of all the nurses was prepared before starting the data collection. Ethical clearance from concerned authorities was obtained. Informed verbal consent from each subject was obtained prior to the interview.

Statistical Analysis

Data was entered and analyzed on Epi-info. Descriptive statistics i.e. percentage, mean and standard deviation was used to report the findings of the study. Inferential statistics i.e. Chi-Square test was used to find the association between the knowledge and selected demographic variables.

Results

Table 1: Socio-demographic details of nurses (n=80)

Factors	Category	Frequency (%)
Age (yrs)	<20	4(5)
	20-25	35(44)
	25-30	20(25)
	>30	21(26)
Hospital units	Medicine I	20 (25)
	Medicine II	10 (12.5)
	Medicine III	10 (12.5)
	Surgery I	20 (25)
	Surgery II	10 (12.5)
	Surgery III	10 (12.5)
Experience	≤1 year	10 (12.5)
	1-5 years	40 (50)
	>5 years	30 (37.5)
Designation	Staff Nurse	65 (81.25)
	Senior staff nurse	10 (12.5)
	Matron	5 (8.75)

Table 1 shows a total of 80 nurses including 40 from medical units and 40 from surgical units were included in the study. The majority of respondents (44%) belonged to the age group of

20-25 years with the mean age=27.28, SD=3.4, range=18-35 yrs. The majority (81.25) of respondents were staff nurses followed by senior staff nurses (19.5%). Regarding experience, 50% of respondents had an experience of 1-5 years followed by >5 years (37.5%)

Table 2: Training on HIV and PEP (n=80)

Characteristics	Category	Frequency (%)
Training on HIV	Yes	30 (37.5)
	No	50 (62.5)
Duration	2 days	12 (15)
	4 days	18 (22.5)
Training on PEP	Yes	15 (18.75)
	No	65 (81.25)
Duration	1 hour	15 (18.75)

Table 2- shows that only 37.5 % of respondents had received in-service training on HIV/AIDS and among those who received training on HIV/AIDS, 60% of respondents had taken the training for 4 days followed by 40% for 2 days. Regarding in-service training on post-exposure prophylaxis (PEP) of HIV, only 18.75 % of them had received in-service training on PEP of HIV and the duration of the course was 1 hour.

Table 3: Knowledge regarding PEP and drugs used in it (n=80)

Characteristics	Category	Frequency (%)
Definition of PEP*	Yes	70 (87.5)
	No	10 (12.5)
Necessity*	Yes	70 (87.5)
	No	10 (12.5)
First aid*	Yes	65 (81.25)
	No	15 (18.75)
Duration	Yes	15 (18.75)
	No	65 (81.25)
ART	Yes	50 (62.5)
	No	30 (37.5)
Combination drug therapy	Yes	30 (37.5)
	No	50 (62.5)

*- statistically significant association ($p < 0.05$)

Table 3- shows that 87.5 % of respondents had knowledge about the meaning of post-exposure prophylaxis of HIV and same percentage of respondents, knew the necessity of post-exposure prophylaxis (PEP) for nurses after occupational exposure to HIV source. Similarly, 81.25 % of respondents had the knowledge of about first aid for occupational exposure and 18.75% of them could know the duration of PEP for HIV is 28 days. Result also reveals that 62.5% of respondents had knowledge about the anti-retroviral drug which was first used as PEP for HIV (Zidovudine (ZDV)), and 37.5 % of respondents had knowledge about the combination of two drug therapy.

Table 4: Practices receiving PEP after exposure (n=80)

Characteristics	Category	Frequency (%)
Did you ever seek help from PEP of HIV services	Yes	20 (25)
	No	60 (75)
Did you try to find out the HIV status of the	Yes	24 (30)

source	No	56 (70)
Did you receive pre-test and post-test counselling for that exposure	Yes	5 (8.75)
	No	75 (93.75)
Did you check your HIV status for that exposure	Yes	5 (8.75)
	No	75 (93.75)
Did you ever received ART	Yes	5 (8.75)
	No	75 (93.75)

Table 4 shows that only 25% of respondents had sought help from PEP of HIV services, only 30% of them tried to find out the HIV status of the source, and only 6.25% of them received pre-test and post-test counselling for that exposure, 31% of them checked their HIV status for that exposure.

Discussion

In the present study majority of respondents (44%) belonged to the age group of 20-25 years with the mean age=27.28, SD=3.4, range=18-35 yrs. The majority (81.25) of respondents were staff nurses followed by senior staff nurses (19.5%). Regarding experience, 50% of respondents had an experience of 1-5 years followed by >5 years (37.5%). Only 37.5 % of respondents had received in-service training on HIV/ AIDS and among those who received training on HIV/AIDS, 60% of respondents had taken the training for 4 days followed by 40% for 2 days. The finding of the current study is contradictory to the finding of the study conducted by Lamichanne J, Aryal B. and Sharma Dhakal K. in Medical Colleges of Chitwan District, which revealed that cent percent of respondents had not received any training on post-exposure prophylaxis of HIV. Seventy-eight percent of respondents answered that self-learning was their source of information regarding PEP followed by co-workers (48%), working experience (11%) & mass media (2%) [5]. The finding of the current study is higher than the finding of a study by Baheti, Tullu & Lahiri which showed that only 40.8% of nurses had knowledge about the fact that the exposed site must be immediately washed with soap and water

[6]. Bairy *et al* showed that 98% of nurses had knowledge that the first-aid procedure after needle prick injury is to wash the site with soap and water and in the present study only 5.0% of them had the knowledge about the best time for initiation of Post-exposure prophylaxis and 30.0 % of them could know the duration of PEP of HIV is 28 days [7]. Similarly, this finding is also supported by a study by Avachat, Phalke & Dhumale which showed that 47% of respondents knew when post-exposure prophylaxis should start [8,9] The finding of the current study is different from the findings study of Owolabi *et al* which showed that only 30.9% of respondents could correctly identify the drugs used and duration of PEP [10].

Conclusions

Based on the findings of the study, it is concluded that nurses working in medical and surgical units of GMC had a fair level of knowledge about PEP of HIV. Knowledge regarding PEP was found to be satisfactory in the majority of respondents but the practice was found to be less. And there is a significant association between the knowledge with demographic variables but in a few characteristics only. Hence educational intervention should be carried out periodically to enhance their practice.

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