

# “A Study To Assess The Effectiveness Of Structured Teaching Programme On Knowledge Regarding Monkey Pox And Its Prevention And Management Among Nursing Students At Nursing College, Medchal Telangana.”

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## ABSTRACT

**Context:** Monkey pox is an emerging infectious disease caused by virus transmitted to humans from infected animals mostly rodents.

**Aim:** To assess and improve the knowledge among nursing students particularly about monkey pox its management and prevention.

**Methods and materials:** This is a pre-experimental study conducted at nursing college between July -September 2022.a total of 60 nursing students were enrolled in the study. All the enrolled nursing students were subjected to a detailed questionnaire consisting of various components which includes general information, causes, clinical features and diagnosis, management and its prevention.

**Results:** The mean age of the study group was 51.7, among Nursing students. Most of the nursing students were having lack of proper knowledge regarding monkey pox was seen. The level of knowledge show that 76.7% are having poor knowledge among nursing students, average score was observed is 23.3% among nursing students. The mean difference between pre-test knowledge and post-test knowledge score 8.78. This indicates an increase in knowledge score after undergoing structured teaching programme.to find the significance of gain in knowledge paired in 't' test was computed and the obtained value of 't'(59): 19:54 was found to be significant at 0.05 level of significance.

**Conclusion:** monkey pox is a viral zoonotic ailment in children. Studies have continually determined that health professionals with adequate education and training have better knowledge and inclined ness to provide care.

**Key words:** monkey pox, knowledge, management and prevention

## INTRODUCTION

Monkeypox (MPX) is a viral zoonotic ailment, endemic in West and Central Africa, with signs and symptoms just like smallpox, despite the fact that with less scientific severity. MPX become first observed in 1958 in colonies of monkeys kept for studies, hence the

name

'Monkeypox. The first human case of monkeypox became pronounced in the Democratic Republic of the Congo (DRC) in 1970.

Since May 2022, several non-endemic international locations in 4 WHO areas have reported monkey pox cases. Rare instances of monkey pox in different international locations are normally related to journey to endemic nations, but most of the modern cases do now not have any history of journey to endemic countries. India needs to be organized in view of instances said from Kerala as well as the growing reports of instances in non-endemic nations.

Initial discovery in monkeys in a Danish laboratory in 1958. First human case- 9-12 months-vintage boy within the Democratic Republic of the Congo in 1970.

Prior to the 2022 outbreak, monkeypox had been stated in human beings in several imperative and western African nations. Previously, almost all monkeypox cases in humans outdoor of Africa had been connected to global travel to international locations where the disorder typically occurs or through imported animals. These cases took place on a couple of continents.

This outbreak caused over 70 instances of monkeypox inside the U.S. Monkeypox has additionally been stated in travelers from Nigeria to Israel in September 2018, to the United Kingdom in September 2018, December 2019, May 2021 and May 2022, to Singapore in May 2019, and to America of America in July and November 2021. In May 2022, multiple instances of monkeypox had been identified in several non-endemic countries. Studies are currently underway to similarly understand the epidemiology, assets of infection, and transmission styles. Animal-to-human (zoonotic) transmission can occur from direct touch with the blood, bodily fluids, or cutaneous or mucosal lesions of inflamed animals. In Africa, proof of monkeypox virus contamination has been found in lots of animals inclusive of rope squirrels, tree squirrels, Gambian pouched rats, dormice, exclusive species of monkeys and others. The natural reservoir of monkeypox has no longer but been identified, even though rodents are the maximum likely. Eating inadequately cooked meat and other animal merchandise of inflamed animals is a possible threat issue. People residing in or close to forested regions may additionally have oblique or low-stage publicity to inflamed animals. Human-to-human transmission can end result from near contact with respiratory secretions, pores and skin lesions of an inflamed man or woman or lately contaminated gadgets. Transmission through droplet breathing debris commonly calls for extended face-to-face touch, which puts health workers, family contributors and different near contacts of energetic instances at greater risk. However, the longest documented chain of transmission in a network has risen in recent years from 6 to nine successive person-to-man or woman infections. This can also reflect declining immunity in all communities because of cessation of smallpox vaccination. Transmission also can arise through the placenta from mom to foetus (which can result in congenital monkeypox) or at some stage in close touch throughout and after beginning. While near physical contact is a well-known risk aspect for transmission, it's miles doubtful at the moment if monkeypox can be transmitted especially via sexual transmission routes. Studies are needed to higher understand this risk.

### **Objectives of the Study**

1. To assess the knowledge regarding monkey pox and its prevention and management among nursing students.

2. To assess the effectiveness of structured teaching programme on knowledge regarding monkey pox and its prevention and management, among nursing students.
3. To find out the association between pre-test knowledge level regarding monkey pox and its prevention and management among nursing students with their selected demographic variables.

### **Materials and methods**

This was a pre-experimental study conducted in nursing collage at Medchal, telangana.60 nursing students were enrolled in the study after obtaining approval of the institution and informed consent was obtained from the participants. The study was conducted in the department of community health nursing. The sample under study was non probability simple random sampling technique was selected. The total population of this selected nursing students was 60. Participant response were taken from a self-administered structured questionnaire was provided. Analysis was done by using descriptive and inferential statistics. Which includes demographic profile includes age, gender, education, occupation, type of family, home remedies during infection were noted, assessed the knowledge regarding monkey pox its prevention and management.

### **Inclusive Criteria**

- Only female nursing students.
- Willing to give voluntary written informed consent.
- Who were present during the time of data collection.

### **Exclusion Criteria**

- Not willing to participate in the study
- Who were sick at the time of data collection
- Who were absent at the time of data collection

### **Data Collection**

All the enrolled Nursing students were subjected into a detailed questionnaire consisting of various dimensions of general information of monkeypox, like causes, clinical features, diagnosis, prevention and management. scoring system is awarded for each question.

### **Questionnaire**

The wellbeing assessment tool was used in this study was a validated and Standardized One Consisting of General Information on Monkey Pox Infection, its causes, clinical features and Diagnosis, Prevention and Management of Monkey Pox Infection along with general demographic details of the participants. Each component will have 5 questions with a maximum score of 25.

The scoring pattern of students will be correlated as follows

<b>Score</b>	<b>status of knowledge</b>
poor	0-12
average	13-19
good knowledge	20-25

### **Statistical Analysis**

Data and observations was entered in MS excel sheet 2010.and the outcome were expressed in numbers, mean $\pm$ , SD and frequencies with percentages (%),chi -square was applied for continuous and categorical variables respectively.

## Results

Current study enrolled a total of 60 samples of Table 1: shows that samples of the participants were in the age group 51.7% of above 18 years, most were educated up to B.Sc. (N) 2nd years (100%), (66.7%) were Hindu ,(81.7) were belongs to nuclear family,(68.3)were belong to above Rs 6000.home remedies followed during monkey pox its prevention and its management (100%).55% were at places of residence,78.3% of the nursing students are not having previous knowledge regarding monkey pox, And 13(22%) were having previous knowledge regarding monkey pox its prevention and management from health personnel and media. If yes, source of information on prevention and management of monkey pox were 16 (26.6%) newspaper, 10(16.7) was tv/radio, 20 (33.7%) were from internet, 14 (23.7%) was got information from health personnel /friend. Home remedies followed during monkey pox and its management and prevention were 4 (6.7%) steam inhalation, 26(43.3%) was nutritional/rehydration support, 24(40%) was taking rest and sleep,6(10%) was personal protective equipment.

Table 2: shows that in pre-test, majority (76.7%) of them had poor knowledge, 23.3% had average knowledge and none of them had good knowledge whereas in the post test both, good knowledge and average knowledge level was 50%.

Table 3: shows that the pre-test knowledge scores ranged from 4-17.the mean pre- test knowledge score was 10.25 with a standard deviation of  $\pm$ 2.56. The median score was 10.the post-test knowledge score was 19.03.the standard deviation of  $\pm$ 3.23 and the median of 19.

The data presented in table 4 shows that the mean difference between pre-test knowledge and post-test knowledge score 8.78. this indicate an increase in knowledge score after undergoing structured teaching programme.to find the significance of gain in knowledge paired in 't' test was computed and the obtained value of 't' (59): 19:54 was found to be significant at 0.05 level of significance.so the researcher inferred that research hypothesis was accepted and null hypothesis rejected.

Table 5: the data presented in table 5 shows that the computed chi-square values for association between protest knowledge scores of nursing students regarding monkey its management and prevention ease with their selected demographic variables were found to be not significant except previous knowledge at 0.05 level of significance.so researcher partially accepted research hypothesis.

## DISCUSSION

Monkeypox, a zoonotic disease as a result of an orthopoxviral, outcomes in a smallpox-like sickness in humans<sup>3</sup>.Although the natural animal reservoir of the monkeypox virus is unknown.<sup>5</sup> The B6R assay recognized 15 extraordinary MPXV strains, even as other orthopoxviral (9) and bacteria (15) traces did not cross-react. Of the 13 human samples tested from showed cases, each assays recognized one hundred% as containing MPXV

DNA<sup>6</sup>The pattern length was 896 HCWs: nurses (n = 485, fifty 54.1%), pharmacists (n = 154, 17.2%), physicians (n = 108, 12.1%), medical technicians/allied health professionals (MT/AHP, n = 96, 10.7%), and dentists (n = 53, 5.9%). A usual low level of HMPX knowledge turned into noticed for gadgets assessing virus transmission and non-cutaneous signs and symptoms of the ailment, with higher information among physicians. Approximately one-fifth of the have a look at sample agreed with the fake belief that HMPX is one-of-a-kind to male homosexuals (n = 183, 20.4%), which became related to lower knowledge with higher frequency amongst MT/AHP in comparison to nurses, physicians, and pharmacists.<sup>1</sup>The ongoing multi-country human monkeypox (HMPX) outbreak turned into declared as a public health emergency of global subject. Considering the key function of healthcare workers (HCWs) in mitigating the HMPX outbreak, we aimed to evaluate their level of understanding and their self-assurance in diagnosis and control of the disorder, besides the assessment in their attitude towards rising virus infections from a conspiracy factor of view. An online survey became allotted amongst HCWs in Jordan, a Middle Eastern us of a, all through May- July 2022 using a questionnaire posted in a preceding observe amongst college students in health schools in Jordan. The study sample comprised 606 HCWs, with about -thirds being either physicians (n = 204, 33%) or nurses (n = 190, 31. %). 4(11) HMPX knowledge objects had &lt;50% accurate responses with most effective 33.3% of the look at respondents having preceding knowledge that vaccination is available to save you HMPX<sup>2</sup>.

## **Conclusion**

In conclusion nurses was observed in terms of assess the actual knowledge, and perceived need for education. Studies have consistently found that health professionals with adequate training and education have higher knowledge and willing ness to provide care. Hence, we recommend including training and education in the nursing and should include in the curriculum and develop continuous education courses for practicing nursing profession and mandating their attendance, in order to better prepare the community to respond a monkey pox condition. When we aim for future global will be free from monkey pox. overall wellbeing of Nursing students is good by following the precautions and measures towards the monkey pox like personal protective equipment when attending with an infected patient, isolation, nutritional support leads to further wellbeing and increases their knowledge for the nursing students to create the awareness to the patient within the hospital and community.

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## **Conflicts of interest**

There are no conflicts of interest

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**Table :1 Frequency and Percentage Distribution of Nursing Students According to Their Selected Demographic Variables.**

S.No	Demographic variables	Frequency (f)	Percentage (%)
<b>1</b>	<b>Age in years</b>		
	18	29	48.3
	Above 18	31	51.7
<b>2</b>	<b>Religion</b>		
	Hindu	40	66.7
	Christian	20	33.3
<b>3</b>	<b>Education</b>		
	Bsc (N) 2 <sup>nd</sup> Year	60	100
<b>4</b>	<b>Type of family</b>		
	Nuclear	49	81.7
	Joint	11	18.3
<b>5</b>	<b>Income of family per month in rupees</b>		
	Rs 6000 and below	19	31.7
	Above Rs 6000	41	68.3
<b>6</b>	<b>Hygienic condition of house</b>		
	Hygienic	60	
	Unhygienic	0	0
<b>7</b>	<b>Place of residence</b>		
	Hostelers	33	55
	Day scholars	27	45
<b>8</b>	<b>Previous knowledge regarding monkey pox and its management and prevention.</b>		
	Yes	13	21.7
	No	47	78.3
	if yes, source of information on		

	prevention and management of monkey pox		
	Newspaper /magazine	16	26.6
	Tv/radio	10	16.7
	Internet	20	33.7
	Health personnel /friend	14	23.7
<b>9</b>	<b>Home remedies followed during monkey pox and its management and prevention</b>		
	a) Steam inhalation	4	6.7
	b) nutritional /rehydration support	26	43.3
	c)complete rest and sleep	24	40

d)personal protective equipment's	6	10
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**Table 2: Frequency and Percentage Distribution of Nursing Students According to Their Level of Knowledge**

KNOWLEDGE SCORES	PRETEST		POST TEST	
	Frequency(F)	Percentage (%)	Frequency(F)	Percentage (%)
Poor	46	76.7	0	0
Average	14	23.3	30	50
Good	0	0	30	50

**Table -3: Mean, Median, Range, Standard Deviation of pre-test and post-test knowledge scores of nursing students regarding monkey pox and its management and prevention.**

Test	Mean	Median	Range	SD
Pre-test	10.25	10	4-17	+2.56
Post Test	19.03	19	13-26	+3.23

**Table 4: mean, mean difference, paired 't test and pre-test and post-test knowledge scores of nursing students regarding monkey pox and its management.**

Knowledge Scores	Mean Difference	Sd Difference	Paired T Test Value
Pre-test	10.25	8.78	0.67
Post Test	19.03		

T 59=2.0010; p<0.5 \*significant

**Table 5: chi-square between pre-test level of knowledge scores of nursing students regarding monkey pox and its management and prevention with their selected demographic variables.**

SELECTED PERSONNEL VARIABLES	KNOWLEDGE SCORES		X2
	POOR(0-12)	AVERAGE (13-19)	
<b>Age In Years</b>			
18	23	6	0.2
Above 18	23	8	
<b>Religion</b>			
Christian	31	9	0.045
Hindu	15	5	
<b>TYPE OF FAMILY</b>			
Nuclear	40	9	2.97
Joint	6	5	



<b>INCOME OF FAMILY PER MONTH IN RUPEES</b>			
Rs 60000- &below	14	5	0.12
Above Rs 6000	32	9	
<b>HYGIENIC CONDITIONS OF HOUSE</b>			
Hygienic	60	60	1
Un Hygienic	0	0	
<b>PLACE OF RESIDENCE</b>			
Hostelers	28	5	2.92
Day scholars	18	9	
<b>PREVIOUS KNOWLEDGE REGARDING MONKEY POX</b>			
YES	7	6	4.03*
NO	39	8	

$X^2(1)=3.84$  at 0.05 level of significance ,\*-significant,#-yates correction