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Review Article

The effect of video assisted teaching programme on knowledge regarding prevention and management of black fungus among staff nurse

Sudhir Kumar Khuntia[1,*], Reena Thakur[1]

[1] *Malwanchal University, Indore, Madhya Pradesh, India*

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ABSTRACT

Background: A dangerous fungal infection that has recently emerged as a hazard for COVID-19 survivors, mucormycosis was first identified in Bangladesh on May 8, 2021, and is now commonly referred to as "black fungus" in the COVID-19 period. During the COVID-19 epidemic, black fungi are eighty times more common in India. The COVID-19 black fungi has spread to numerous nations, including Bangladesh, Pakistan, Russia, Iran, and Brazil. Being physically close to India, Bangladesh is concerned about the worrisome rise in COVID-19-related black fungus infections in India, which have a high fatality rate of about 50%.

Materials and Methods: Pre-experimental design with one-group pre-test and post-test study method was used to examine staff nurses' understanding of black fungus avoidance and control; the participants were chosen through handy sampling.

Result: The data collected was analyzed using descriptive and inferential statistics in terms of frequency, mean, standard deviation, and associated by chi square test. Among 60 staff nurse in pre-test, 29 (48.33%) have poor knowledge, 27 (45%) have average knowledge, 4 (6.67%) having good, and in post-test 44 (33.33%) having good knowledge, 16 (26.67%) having average knowledge.

Conclusion: Under Pre-test the Mean of the Scores was 8.3 (55.33%) under the Post- test the Mean was observed as 12.2 (81.33%).

1. Introduction

Being geographically close to India, Bangladesh is concerned about the alarming rise in COVID-19-related black fungus infections in India, which have a high fatality rate of nearly 50%. The death rate for mucormycosis, sometimes known as a black fungus infection, ranges from 46 to 96%, depending on the patient's underlying health.[1] The large second wave of the COVID-19 epidemic has presented a challenge for the Indian healthcare system from this life-threatening new enemy.[2] The fungus family Mucorales causes mucormycosis, which affects numerous bodily organs. This fungal opportunistic illness spreads quickly. Now, this unusual fungus has been infecting covid patients in India at higher rates than before.[3]

In India, the frequency of this black fungus infection among covid-19 and post-covid-19 patients is now on the rise.[4] India reported 28,252 mucormycosis cases as of June 8, 2021. They had a history of covid-19 in 86.0% of them and diabetes in 62.3% of them. The true prevalence is thus expected to be substantially greater than the recorded instances, according to the health experts.[5] Almost 70 times more cases of black fungus infection have been documented in India than in the rest of the world.[6]

* *Corresponding author*.
E-mail address: jackskkhuntia19@gmail.com (S. K. Khuntia).

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2. Need of the Study

"Here, we already see two to three instances every week. The pandemic itself is a nightmare "The information was provided by her. Dr. Raghuraj Hegde, an eye surgeon in Bangalore in southern India, has a similar tale. In the previous two weeks, he has treated 19 patients with mucormycosis, most of them were young. Several of them were too ill for surgery, as you said. The severity and prevalence of this fungal illness during the second wave, as compared to a few instances during the first wave last year, have startled doctors, they add. Dr. Nair claims that over the previous two years, he has only encountered 10 instances in Bombay.[7]

Modern black fungus infections linked to COVID-19 are primarily of the rhino orbital cerebral kind, which clinically manifests around the nose, eye, and brain. Corticosteroid medication is presently recommended as a risk factor for black fungus infection in the treatment of COVID-19 patients with diabetes mellitus. According to a research, patients with COVID-19 were more likely to develop pulmonary mucormycosis because of their immunocompromised status. The pathogenesis of the black fungus comprises vascular thrombosis and subsequent tissue necrosis, both of which result in death rates of about 54%.

The best way to avoid contracting black fungus at COVID19 is to stay away from the risk factors. There is presently no vaccine for black fungus, even though COVID-19 immunisation has begun. Hence, to treat COVID-19-induced illness, early identification and therapy are crucial.[8]

2.1. Statement of the problem

A study to assess the effectiveness of video assisted teaching programme on knowledge regarding prevention and management of black fungus among staff nurse working in Durg Division Hospital C.G."

3. Objectives of the Study

1. To assess the pre test knowledge regarding prevention and management of black fungus among staff nurse working in Durg Division Hospital C.G."
2. To assess the post test knowledge regarding prevention and management of black fungus among staff nurse working in Durg Division Hospital C.G."
3. To assess the effectiveness of video assisted teaching programme on knowledge regarding prevention and management of black fungus among staff nurse working in Durg Division Hospital C.G."
4. To find out the association between pre test knowledge regarding prevention and management of black fungus and selected socio demographic variables among staff nurse working in Durg Division Hospital C.G."

3.1. Assumptions

It is assumed that

1. Knowledge on prevention and management of black fungus among staffnurse may prevent morbid condition of people.

3.2. Hypothesis

H_1 - There will be significant difference between pre test and post test knowledge regarding prevention and management of black fungus among staff nurse working in Durg Division Hospital C.G."

H_2 - There will be significant association between pre test knowledge regarding prevention and management of black fungus and selected socio demographic variables among staff nurse working in Durg Division Hospital C.G."

4. Research Methodology

4.1. Research approach

The phenomenological investigation is "the analysis of phenomena, often in a thorough and comprehensive manner, through the acquisition of rich narrative materials using a flexible research methodology."

The present research sought to assess the effect of a video-assisted training program on staff nurses' understanding of black fungus prevention and treatment at Durg Division Hospital C.G. A "quantitative research technique" was used to accomplish these objectives.

4.2. Research design

Research design is the description of methods and procedures for gathering the needed data. What information is to be collected from which sources by which procedures is specified in the project's overall operational framework.

The current study employs a "pre experimental one group pre-test and post-test" research method study.

The chosen Durg Division Hospital C.G. was the study's site in the current study.

4.3. Variables

Variables are traits or qualities of a person, idea, or circumstance that shift or change.

4.3.1. Independent variables

In the present study assess the effectiveness of video assisted teaching programme on knowledge regarding prevention and management of black fungus among staff nurse working in Durg Division Hospital C.G. were independent variables.

4.3.2. Dependent variables

In the present study to assess the knowledge regarding prevention and management of black fungus among staff

nurse working in Durg Division Hospital CG is the dependent variables.

4.4. Sample

The sample of the present study is 60 staff nurse at selected Durg Division Hospital C.G

4.5. Sampling technique

Using the use of non-probability convenient sampling, a representative sample of staff nurses was chosen.

4.6. Sample size

In present study, 60 staff nurse at selected Durg Division C.G.

4.7. Inclusion criteria

1. Staff nurse who are present at the time of data collection
2. Staff nurse who are willing to participate in the study.
3. Staff nurse who are knowing English language

4.8. Exclusion criteria

1. Staff nurse who are not present at the time of data collection
2. Staff nurse who are not willing to participate in the study.
3. Staff nurse who are not knowing English language.

4.9. Pilot study

The study was aimed at to assess the effectiveness of video assisted teaching programme on knowledge regarding prevention and management of black fungus among staff nurse working in Durg Division Hospital C.G." It was also designed to find out the feasibility of conducting the study and to decide on a plan of statistical analysis by Spearman Brown Proficiency; convenient sampling technique was used for selection of staff nurse.

Pilot study was conducted on 23.06.22 Following steps were adopted for the study:

1. Permission was taken from, Director
2. 6 subjects were selected by convenient sampling
3. A self structured questionnaire was administered
4. On an average, time taken by each subjects for completing the questionnaire was 20 minutes.

The study was conducted to measure the authencity of the tool strength and weakness of the tool. No significant problems were faced during pilot study.

5. Result

Frequency and Percentage distribution of staff nurse according to socio demographic variables.

Table 1: Frequency and percentage distribution of staff nurse according to age in years. (N=60)

Age in years	Frequency (f)	Percentage (%)
25-30	25	41.67
31-35	28	46.67
36-40	6	10
>40	1	1.67
Total	60	100

Table 2: Frequency and percentage distribution of staff nurse according to their religion

Religion	Frequency (f)	Percentage (%)
Hindu	43	71.67
Muslim	10	16.67
Christian	4	6.67
Others	3	5
Total	60	100

Table 3: Frequency and percentage distribution of staff nurse according to education status. (N = 60)

Education	Frequency (f)	Percentage (%)
GNM	27	45
B.sc Nursing	20	33.33
M.sc Nursing	10	16.67
Phd	3	5
Total	60	100

Table 4: Frequency and percentage distribution of staff nurse according to year of experience (N = 60)

Year of Experience	Frequency (f)	Percentage (%)
1-2	40	66.7
3-5	7	11.67
6-8	10	16.67
>8	3	5
Total	60	100

Table 5: Frequency and percentage distribution of staff nurse according to their monthly income

Income	Frequency (f)	Percentage (%)
<Rs 10000	5	8.33
10000-15000	6	10
Rs 15000-20000	15	25
>Rs 20000	34	56.67
Total	60	100

Table 6: Frequency and percentage distribution of staff nurse according to Source of previous knowledge

Source of previous Knowledge	Frequency (f)	Percentage (%)
Seminar, conference	32	53.33
Mass media	6	10
Health care personnel	4	6.67
Doctors, nurses	10	16.67
Journals, newspaper	8	13.33
Total	60	100

Table 7: Frequency and percentage distribution of staff nurses according to type of family

Type of Family	Frequency (f)	Percentage (%)
Nuclear	25	41.67
Joint	20	33.33
Extended	15	25
Total	60	100

Table 8: Frequency and percentage distribution of staff nurses according to gender

Gender	Frequency (f)	Percentage (%)
Female	56	93.33
Male	4	6.67
Total	60	100

Table 9: Frequency and percentage distribution of overall pre and post-test knowledge regarding prevention and management of black fungus among staff nurse

Knowledge	Pre test		Post test	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Poor	29	48.33%		
Average	27	45%	16	26.67%
Good	4	6.67%	44	33.33%
Total	60	100%	60	100%

Table 10: Mean percentage, Mean difference, and Mean difference percentage of overall pre and post-test knowledge among staff nurse. (N= 60)

Knowledge area	Mean knowledge score	SD	Mean percentage	t-value	p-value
Pre Test	8.3	1.76	55.33	12.74	4.17/P <0.0001
Post Test	12.2	1.17	81.33		

Under pre-test the Mean of the scores was 8.3 (55.33%) under the Post- test the Mean was observed as 12.2 (81.33%).

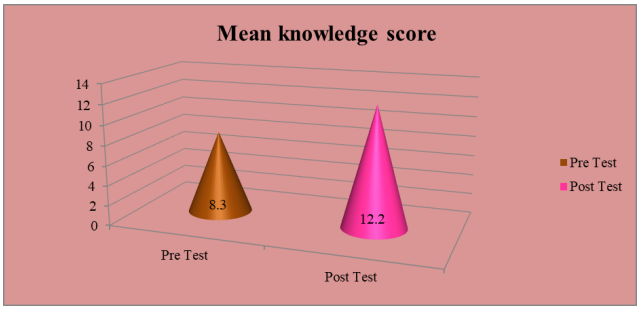

Fig. 1: Pyramid diagram showing the percentage distribution of mean percentage difference between pre and post -test knowledge

Table 11: Chi-square test findings shows the significant association between the pre-test knowledge and demographic variables

Socio demographic Variable	Critical Value at 0.05	Chi-Square	df	P value	Inferences
Age (in years)	12.59	6.26	6	P>0.05	Not significant
Gender	9.49	2.45	4	P>0.05	Not significant
Religion	12.59	6.82	6	P>0.05	Not significant
Education	12.59	21.56	6	P<0.01	significant
Year of experience	12.59	6.26	6	P>0.05	Not significant
Monthly income	12.59	7.33	6	P>0.05	Not significant
Source of information	16.89	8.92	12	P>0.05	Not significant

6. Conclusion

There is presently no vaccine for black fungus, even though COVID-19 immunisation has begun. Hence, to treat COVID-19-induced illness, early identification and therapy are crucial.

7. Source of Funding

None.

8. Conflict of Interest

None.

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Author biography

Sudhir Kumar Khuntia, Ph.D Scholar

Reena Thakur, Ph.D. Supervisor

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