



A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING DISASTER MANAGEMENT AMONG STUDENTS OF SCHOOL OF DENTAL SCIENCES, KARAD

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ABSTRACT

India has been traditionally vulnerable to different types of disasters owing to the unique topographic and climatic characteristics. Within Asia, 24% of deaths due to disasters occur in India. On an average of about 4344 people lost their lives and about 30 million people were affected by disasters every year.¹

Methods: The data was generated by using the structured questionnaire. Purposive nonprobability sampling techniques were adopted to select 60 subjects. The data was obtained from the study subjects were analyzed and interpreted in terms of the objectives and hypothesis of the study. Descriptive and inferential statistics were used for the data analysis and the level set at 0.05.

Results: The 100% respondent of dental students were in age group 18-20 years, 63.63% of dental students were females, 80.68% were belongs to Hindu religion, there are 50-50% students belong from joint and nuclear family, 98.86% fathers and 56.81% mothers of dental students are working, 45.45% families having their monthly income is Rs.51,000-75,000 per month, total 88 i.e 100% students from 1st year dental and 47.72% students having 70 and above 70% marks in previous year, 36.36% students having previous knowledge about disaster management.

In pre test 64.77% students get average marks and in post test 82.95% students having good marks i.e in post test the knowledge level regarding disaster management increased. The mean difference between pre and post test is 6.47728 and the p value is >0.0005 i.e 0.0001 it is significant.

KEYWORDS : Knowledge, STP, disaster management, dental college.

Introduction:

A disaster is any natural event that overwhelms a community, district or country's ability to respond.

Disaster Management² refers to manage disaster response in the country. India has been traditionally vulnerable to the natural disasters on the account of its unique geo-climatic conditions. Floods, droughts, cyclones, earthquakes and landslides would have been a recurrent phenomena. About 60% of the landmass is prone to earthquakes of various intensities; over 40 million hectares is prone to floods; about 8% of the total area is prone to cyclones and 68% of the area is susceptible to drought. In the decade 1990-2000, an average of about 4344 people lost their lives and about 30 million people were affected by disasters every year.³

The Disaster Management Act 2005 was unanimously passed by both houses of parliament and received the assent of the president of India on 23rd December 2005. Under this Act, the National Disaster Management Authority [NDMA] was created, chaired by the Honorable Prime minister of India as the Apex body for disaster management in the country. State Disaster Management Authorities are being headed by the respective district collectors and co – chaired by the elected representatives of the respective districts. The act also mandates the creation of the National Disaster Response Force [NDRF] for specialized response and the National Institute of Disaster Management [NIDM] FOR Institutional capacity development.²

As part of the International Decade for Natural Disaster Reduction Activities, every year, the Second Wednesday of October has been designated as World Disaster Reduction Day. Indian Meteorological Department [IMD] plays a key role in for warning the disaster. It has five centers in Kolkata, Bhubaneswar, Vishakhapatnam, Chennai and Mumbai for detection and tracing of cyclone storms. INSAT Disaster Warning System [DWS] receivers have been installed primarily in the coastal areas of Tamilnadu and Andhra Pradesh.⁴

Review Of literature:

A prospective study was conducted on disaster and subsequent health care utilization among victims of their family members and control subjects. The study results implies that (95% CI, 1.35-1.78) uninjured victims contact the family practitioner more often for mental health problems than adolescent community control subject (95% CI, 1.69-12.20). In the adult family members in loss of child predicts overall utilization (95% CI, 1.35-2.63) and utilization for mental health (95% CI, 2.10-35.92) during the first year post fire. The study concluded that attention should be paid to the primary care needs of bereaved individuals and those who have witnessed the disaster.⁵

A study was conducted to evaluate the effect of the earthquakes on the health practices in the rural town of San Sebastian. They used a convenient sample survey of subjects affected by the earthquakes. The sample included 594 people within 100 households. The 32 question survey assessed post earthquake conditions in the areas of health care and access to care, housing, food, water and sanitation. The result has shown that communicable diseases affected a number of family members. After the earthquakes, 38% of households reported new injuries and 79% reported acute exacerbations of chronic illness.⁶

Mathew (2005), in his article on "Information technology and public health management of disasters – a model for south Asian countries" to discuss the three important lines of action for effective health response disasters: Disaster preparedness, Emergency relief and Management of disasters. This model visualizes the use of IT in the public health management of disasters by setting up the Health and Disaster Information Network and Internet Community centers, which will facilitate co-operation among all those in the areas of disaster management and emergency medicine.⁷

A study was conducted to describe the disaster preparedness concerning personnel at the hospitals. Questionnaire was sent to

the chief doctor and chief nurse for the involved department, and a personal questionnaire was sent to all the doctors and nurses in the region, who had participated in one or more courses in disaster medicine during the period 1990-1995. The findings have shown that 7% of the residents, 29% of the senior residents and 56% of consultants, 33% of the Nurses had taken a course in disaster medicine. Only 15% had taken more than one course, and as few as 2% had a follow up course to primary one given in the region. 41% had used their acquired knowledge either in theory or practice: 55% for educational purposes, 11% for disaster planning and 12% for buying equipment for the hospital.⁸

Methodology:

This research held at School of dental sciences KIMSDU, karad. Experimental research method was used in this research. Formal written permission was obtained from the concerned authority of the dental college and participants. The sample consists of 88 students from dental college and will be selected on the basis of sampling criteria of purposive non probability sampling techniques. Sample was selected as per inclusion criteria of the study. Procedure was explained and consent was taken from all samples. The pre-test regarding knowledge of disaster management was administered to sample. The intervention (i.e. STP on disaster management) will then be administered to the sample by the investigator for 45 minute and only for one time. Then the post-test was assessed after the 1 week of intervention to sample.

Results:

- All dental students i.e.100% studnts from age group 18 yrs-20yrs.
- Most of 36.36% respondent of dental students was male and the remaining 63.63% respondents of dental students were female.
- Majority of dental students i.e. 80.68% of dental students were Hindus, 1.13% Christians and 2.27% Muslims and 15.90% others.
- 50% of dental students have joint families and 50% have nuclear families.
- Majority of dental students fathers are working i.e. 98.86% and only 1.13% not working.
- Majority of dental students mothers are working i.e. 56.81% and 43.18% not working.
- Majority of dental student's parent's i.e. 45.45% monthly income is Rs.51, 000/- Rs.75,000/- , 32.95% having monthly income Rs.76,000 and above, 11.30% having monthly family income is between Rs.26,000/ to-Rs.50,000/- and only 10.22% having monthly family income is between Rs.10,000/- to Rs.25,000/-.
- All dental student's i.e. 100% students were having the year of the programme is 1st year dental.
- Majority of dental students i.e. 47.72% scored 70%and above marks in previous year. And 32.95% dental students obtained 60%-69% marks in previous year. Then 19.31% dental students scored 50-59% marks in previous year respectively.
- Majority of dental students i.e. 38.33% of known person drug addict is from family and 23.33% from neighbors. And 30% and 8.33% known drug addicts are friends and colleagues respectively.
- Majority of dental students i.e. 36.36% gained knowledge about Disaster management from book, 35.22% gained knowledge from internet, 18.18%, gained from friends , only 10.22% got information from family members.

Table: Comparison of Knowledge of Dental Students Regarding Disaster management by Comparing Pre-Test with Post-Test. N=88

Level of knowledge	Score	Pre Test		Post Test	
		No	%	No	%
Poor	0-15	24	27.27	0	0
Average	16-21	57	64.77	15	17.04
Good	22-30	7	7.95	73	82.95
Total	88	100	88	100	

The above table shows the pre-test and post-test level of knowledge of dental students regarding disaster management. In the pre-test it is noticeable that majority of dental students 57(64.77%) had average, 24(27.27%) are having poor and only 7(7.95%) student having good level of knowledge about disaster management, Whereas 73(82.95%) of dental students had good level of knowledge and only 15(17.04%) had average level of knowledge and none of dental students had poor knowledge regarding disaster management in post test. It shows that before administration of structured teaching program the knowledge level is less in relation to after administration of structured teaching programme.

Table: Determiningthe Knowledge of dental Students Regarding disaster management.

The Mann- Whitney test was used to test the hypothesis and significant difference in the level of knowledge between pre-test and post-test by dental students regarding disaster management and is significant (p<0.0001).

Pre test	Mean	17.67045
	SD	2.711074
Post test	Mean	24.14773
	SD	2.615338
Mean gain difference		6.47728
p- value		<0.0001

The mean and standard deviation of knowledge score obtained before and after the administration of the structured teaching programme.

The above table depicts the mean and standard deviation of knowledge score obtained before and after the administration of the structured teaching programme.. The post-test mean is 24.14773 i.e higher than the pre-test mean i.e 17.67045. The mean difference is 6.47728.

'P' value is 0.0001 i.e > 0.0005 is Significant.

The analysis revealed that there is no significant association (p < 0.05) could be found with demographic variables of dental students. Therefore H2 i.e. There will be a significant association between knowledge, and the selected demographic variable is rejected.

Future Scope:

Keeping in view the findings of the present study, the following future scope were made:

1. A similar study can be conducted with a view to develop and implement new techniques to improve knowledge about disaster management.
2. A similar study can be replicated on other professional colleges in different areas.

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