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Comparison between online and offline mode of teaching regarding palliative care

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Abstract

Abstract: Palliative care is an important aspect in health care. For advanced stages of diseases, it is an important aspect of therapy. Doctors, nurses, health workers must be trained regarding palliative care. Due to the growing demand of palliative care, palliative care training becomes an essential part. The need for life care training is increasing because of the aging population and increasing chronic advanced health issues. Gradually this palliative care will be routine and standard care. In this study, researchers were trying to compare the effectiveness of online and offline modes of education.

Objective: To compare the effectiveness between online and offline mode of training.

Methods: Researcher select quasi experimental research design for this study. Non probability convenient sampling technique was used in this research study. Informed consent was taken from the students. Two settings were selected in this study. For Online training MMI Nursing College, Raipur was selected and for offline training CM Nursing Institute, Bhilai was selected. Structured with multiple choice questionnaires were used as a tool. Reliability was 0.93 by Pearsons formulae.

Results: Pretest mean was same in two methods but in post test online mean 25 and offline mean 21, online median 24 and offline median 20 in post test, mean difference were 10 and 6. It reflects that there is more gain in knowledge in online mode than offline. T test was 9.09 in online mode which was much higher than off line t test value 2.21 which indicates there is much true mean difference through online mode than offline mode.

Conclusion: This study concludes that online teaching is much more effective than offline teaching due to some considerable factors.

Keywords: Palliative care, end of life, google form

Introduction

In India almost 6 million people need palliative care yearly. Hourly 60 patients die due to cancer in India ^[1]. For the year 2022 in India the estimated number of incident cases was 14,61,427 ^[2]. It is estimated that 56.8 million people need end of life care yearly ^[3]. In India still palliative care is in early stage. Palliative care is an important aspect in health care. For advanced stages of diseases, it is an important aspect of therapy. Doctors, nurses, health workers must be trained regarding palliative care ^[4]. Due to the growing demand of palliative care, palliative care training becomes an essential part ^[5]. The need for life care training is increasing ^[6] because of the aging population and increasing chronic advanced health issues ^[7]. Gradually this palliative care will be routine and standard care for advanced stage chronic ill patient, cancer patient and non-oncologic patient also ^[8].

The inadequate teachers with palliative care expertise still hamper fruitful palliative care training ^[9, 10]. In the era of advanced technology with limited skillful teacher palliative care training can be provided through e- platforms which can cover a big population.

In this study, researchers were trying to compare the effectiveness of online and offline modes of education.

Methodology

Study Design: Researcher select quasi experimental research design for this study. After taking ethical permission from concerned authority and informed consent from participants pretest was conducted. After that an extensive training programme was conducted. After completion of the training programme posttest was taken with the same questionnaire in the same way.

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Sample Selection: Non probability convenient sampling technique was used in this research study. Participants were well explained about this training before starting. Then Informed consent was taken. Participants who were available in that classroom and given consent they selected as samples for this study.

Setting: Two settings were selected in this study. For Online training MMI Nursing College, Raipur was selected and for offline training CM Nursing Institute, Bhilai was selected.

Study Tool: In this research study research tool was structured with multiple choice questionnaires. Toll was divided into two sections. 12 demographic related questions were there in Section A and 40 structured multiple-choice questions were there in section B. After preparation the researcher sent the tool to 7 validators. After validation, a reliability check was performed by kearl pearson's formula. Reliability was 0.93 which indicated the tool was highly reliable

Intervention

Researcher selects two settings for the study for the purpose of comparing the effectiveness between online and offline mode of training. Researcher selects CM Nursing Institute as a setting for off line training. In the offline setting principal and class coordinator told that whole training needs to be finished within 4 days because students are having another course also. Accordingly, researcher planned whole content which will be finished in 4 days with 10 hours. On the first day researchers went to the classroom, explained the purpose of palliative care training and explained research consent with face-to-face interaction with the students. After taking consent the research tool i.e. questionnaire was explained in details how to fill through Google form. Researcher spent 20 minutes explaining. After a proper explanation pretest was conducted through Google form then training started. The first day concept of palliative care and pain management was taught, second day symptom management, third day communication and ethical principles and last day grief and optimization of care was covered. After completion one topic 15 mines relaxation time was given then next topic started. Training was provided through PPT, Real life video, Case Study and Demonstration.

In online mode researchers select MMI Nursing College as

setting. In this setting all modern technologies were available. Researcher asked the principal to give a total of 10 hours and that 10 hours will be splitted in 7 days. Principle was agreed and researchers plan a total palliative care training module to complete in seven days. So, in the first day concept of palliative care, 2nd day pain management, on 3rd and 4 th day symptom management, 5 th day Communication, 6 th day Ethical principle and Grief, loss and on 7 th day Optimization of care. Before starting class Researcher explained nicely the purpose of this training and took informed consent. Two faculties from that college help to take consent from the student. Hard copy of consent was sent in before in that college. As it was online mode so for explaining all the details it took 30 mins for developing IPR. After that Google form link was sent through what's app. As it was the first time to fill questionnaire through Google form so researcher has demonstrated this in beginning. Still in the meantime few students faced the problem to open Google form, that time two faculties who helped to do online set up they resolved the problem. After completion of pretest training was completed throughout seven days. Training was provided through PPT, Real Life video, Case study, Demonstration. Classroom setup was very nice and the internet connection was very good. Throughout training the trainer was able to see the face of students on the big screen and vice versa.

Data Collection procedure

Researcher explained nicely the purpose of conducting this study. Then informed consent was taken from participants. Data was collected through Google form in both settings via offline and online mode. Participants were well explained and demonstrated how to fill the form by showing one sample though ppt. After that Google form was shared with their what's app group in both settings. They open, fill and submit forms within 1 hour. During opening, a few students faced some problems, then they were instructed to share their register email id or ph no. after putting that form was opened and the problem was solved. There was no option to edit after final submission. After pretest extensive training programme was conducted throughout 4 days via offline mode and 7 days via online mode. At the end of one month a posttest was taken. Same questionnaire was administered in the posttest.

Results

Table 1: Demographic characteristics of the student. (N=140: n1=70: n2=70).

S. No	Parameters	Online (MMI)		Offline (CM)	
		Frequency	Percentage	Frequency	Percentage
1	Age in yrs				
	A. 15 - 20	41	58.6	18	25.6
	B. 20 - 25	26	37.1	49	70.6
	C. 25 - 30	1	1.4	2	2.8
	D. Above 30	1	1.4	1	0.9
2	Gender				
	Male	6	8.7	5	6.5
	Female	64	91.3	65	93.5
3	Religion				
	Hindu	64	91.4	59	84.3
	Muslim	1	1.5	1	1.9

	Christian	5	7.1	10	13.8
	Sikh	0	0	0	0
4	Type of Family				
	Nuclear	38	54.3	45	63.9
	Joint	32	45.7	25	36.1
5	I have heard this term palliative				
	Yes	46	65.2	44	62.3
	No	24	34.8	26	36.8
6	I heard this term palliative from the source of				
	Relative	2	2.9	3	4.7
	Television	1	1.4	2	2.8
	Hospital	59	84.1	33	47.2
	None	4	5.8	23	33
	Study	4	5.8	9	12.3
7	I expose any palliative care education				
	Yes	44	63.2	28	40.6
	No	26	36.8	42	59.4
8	I have experience in to see anyone in dying phase from my family				
	Yes	33	47.8	31	44.9
	No	37	52.2	39	55.1
9	Level of medical service setting from where you are clinically exposed				
	Medical college	49	70	39	56.1
	District hospital	2	2.9	1	1.8
	Private Hospital.	19	27.1	29	42.1
10	Did you face any death in front of you recently				
	Yes	20	28.6	22	31.1
	No	50	71.4	48	68.9
11	Is there any palliative unit in hospital where you trained				
	Yes	28	39.7	17	23.8
	No	42	60.3	53	76.2

70 students attended online training and 70 students attended offline training. Table 1 represents the demographic data of 140 students. In online maximum students i.e 58.6% were in the age group of 15 - 20 yrs whereas in offline maximum students i.e 70.6% were in the age group of 20 - 25 yrs. More than 90% were female

students in both settings. Religion maximum belonged to Hindu family and nuclear family in both colleges. In online mode 63.2% students in online mode and 40.6% in offline mode report that they are exposed to palliative care education.

Table 2: comparison of Range and spreading of data by online and offline mode

Mode of Training	Range		SD	
	Pre test	Post test	Pre test	Post test
Online	6 to 25	15 to 32	4.22	8.77
Offline	9 to 24	13 to 35	3.73	7.9

Table 2 reflects the range and standard deviation in pretest and posttest via online and offline mode. We are observing that the pretest range starts from 6 in online mode and from 9 in offline mode which reach to 15 and 13 during posttest in online and offline respectively. If we do compare then we

are clearly seeing that the lower range of pretest offline mode is higher than online mode while in posttest its becomes just opposite i.e. online mode is higher than offline mode. It means after training, the starting range scores of students become higher online than offline.

Table 3: comparison of knowledge increment by descriptive statistics in pre and posttest through online and offline mode

Mode of Training	Mean		Mean Difference	Median	
	Pre test Mean	Post test Mean	Mean Difference	Pre test Median	Post test Median
Online	15	25	10	14	24
Offline	15	21	6	21	20

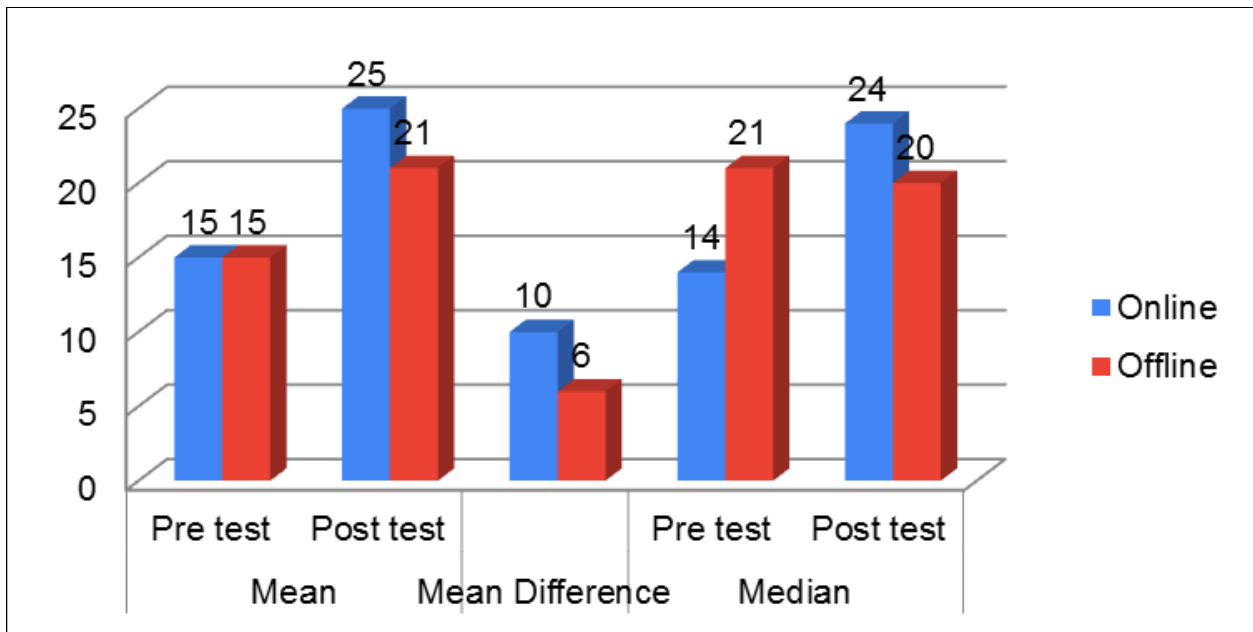


Fig 1: Comparison of knowledge between online and offline mode of training

Table 3 and figure 1 interpret that students' pretest mean score for both colleges were same i.e. 15. It means the baseline knowledge of students from two colleges was the same. After training when researchers conduct posttests in that time it is seen that the Mean score in online mode (25) of teaching was higher than offline mode (21) of teaching. When we are comparing the median, the same thing is

reflected i.e. online median (24) is higher than offline median. If we compare the effectiveness between online and offline mode of training, surprisingly we are seeing that online mode is more effective than offline in gaining knowledge in this study. Whereas traditionally we know that in offline training trainers and trainees get opportunities for more interaction.

Table 4: Calculating true mean difference through online and offline mode training by inferential statistics.

Mode of Training	Mean Difference	t test	df	p value at 0.05	Remarks
Online	10	9.09	69	1.94	Significant
Offline	6	2.21			

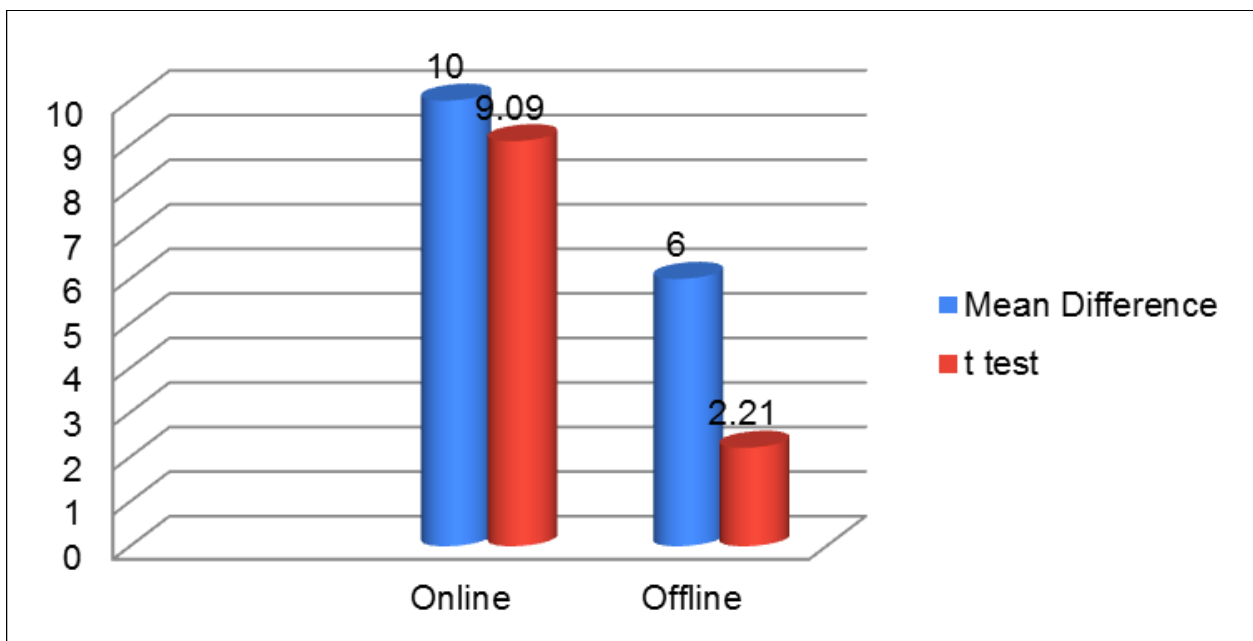


Fig 2: Showing true mean difference of online and offline mode of training

For identifying true mean difference between pretest and posttest for both online and offline mode researcher

computed paired t test for pre and post test of online mode and similar way in pre and post test of offline mode. In

online mode of training the mean difference was 10 which were higher than offline mode of training i.e. 6 reflecting knowledge gain was higher in online mode than offline. If we see the results of paired t test, we are seeing that paired t value through online mode was 9.09 and offline mode was 2.21. Both values were more than p value (1.94) at 0.05

level of significance as shown in table 4 and figure 2. It means pre and post test mean difference was true for both online and offline mode. But at the same time, we are seeing that the online t test value was much higher than offline t test value. It reflects that the true mean difference was more in gaining knowledge through online mode.

Table 5: Comparing area wise knowledge gain through online and offline mode training.

S. No.	Area Wise Nurses' responses to palliative care.	ONLINE (MMI) Posttest Mean%	OFFLINE (CM) Posttest Mean%
I.	Awareness on the concept of Palliative care	65.38	54.52
II.	Awareness on the pain management of terminal ill patient	65.38	48.28
III.	Awareness on the various symptom management of palliative patients.	57.82	48.28
IV.	Awareness on the communication skill and ethical principles in palliative care setting	58.38	50.84
V.	Awareness on the Grief, loss Optimization of care and Final hours.	78.20	67.10

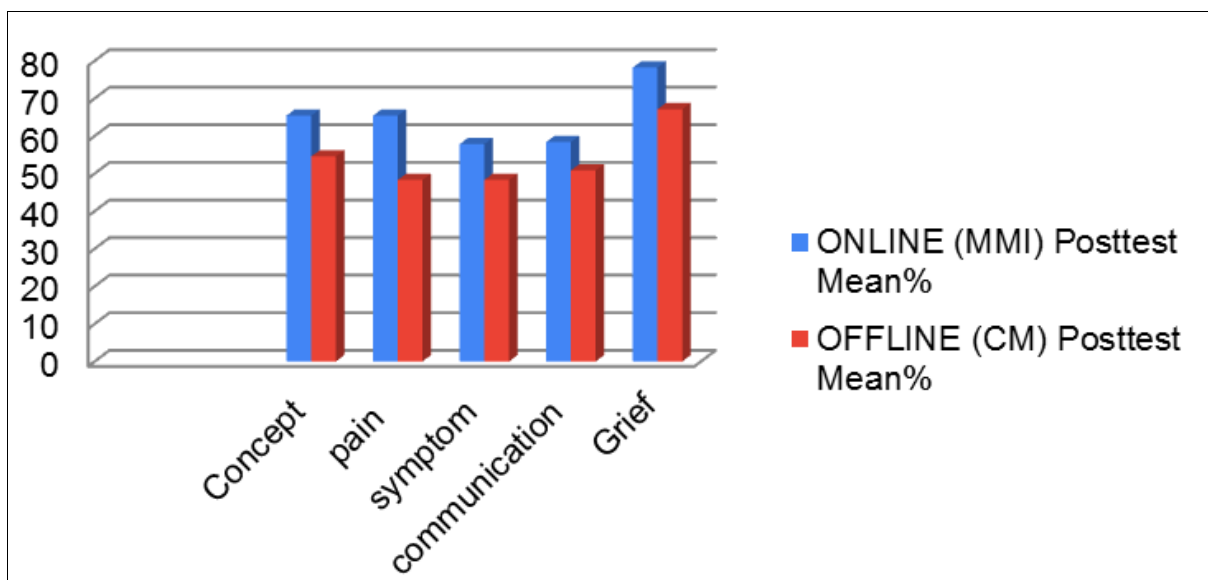


Fig 3: Showing area wise comparison between online and offline mode of training

Table 5 shows the area wise nurses' response through two different modes. Researchers considered post test data only here and computed posttest mean percentage. Total questionnaire or tool was divided in five areas i.e concept of palliative care, pain management, symptom management, communication and awareness of grief. In every area table data reflects that the posttest test mean percentage of online mode of training was higher than posttest test mean percentage of offline mode of training. Picture is clearer in the above figure i.e in every area we are clearly seeing that the blue bar diagram (posttest mean%) was longer than the red bar diagram (posttest mean%).

Summary and Conclusion (will be done later)

On the basis of study results reflecting on Table no 3,4 and 5 reflecting it can be concluded that Online training was more effective than online mode. Whereas it is very clear and usual that through offline mode trainees and trainers both get a chance of face to face interaction where teacher's stimulation has an effect on training. Surprisingly in this study online mode training became much more effective. Through offline mode training was completed within 4 days

and duration of training was two and half hours whereas in Online mode training was completed in 7 days and duration of training was 1 and half hour in each day. So maybe participants are not able to grip information in too long session. Hats why online mode was very effective in this study. In another way it is also seen that online mode is successful in providing training. Through online mode we can cover many areas at a time which are the obstacle for offline mode. So, through online platform we can spread this training in different parts of India for improving knowledge of nurses regarding end of life care.

Recommendation

Emphasis to be given for creating online platform of palliative care training with good internet facility so that large population can be covered. From every state A team can be developed who will be master trainer and providing training to nurses throughout that state and other area. Through online platform this palliative care training may reach to palliative care patient and family in community also where it is very much needed. More researchers through online mode are needed.

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