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**ORIGINAL ARTICLE****Nursing Students Perceptions about Traditional and Innovative Teaching Strategies– A Pilot Study***Sailaxmi Gandhi<sup>1</sup>, Mythili D<sup>2\*</sup>, Thirumoorthy A<sup>3</sup>**<sup>1</sup>Department of Nursing, <sup>2</sup>College of Nursing, <sup>3</sup>Department of Psychiatric Social Work, National Institute of Mental Health and Neuro Sciences (NIMHANS), Bangalore -560029 (Karnataka) India***Abstract:**

*Background:* Nursing education is undergoing tremendous changes with the changing needs of the rapidly changing society. A sound education system is the prerequisite for the development of any nation. *Aim and Objectives:* One way to enhance nursing education was to evaluate the learning perceptions of various teaching strategies in nursing education programs. The study was aimed to evaluate the student learning perception about traditional and modern teaching strategies among under graduate nursing students (N=44). *Material and Methods:* Post test only design was used to compare the learning perception of students about traditional and innovative teaching strategies (brain storming, concept mapping & problem based learning). One group was exposed to traditional teaching strategy and the other group was exposed to innovative teaching strategy about mental health assessment and therapeutic communication. *Results:* Findings indicated a statistically significant increase ( $p < 0.006$ ) in the learning perception among students exposed to innovative teaching strategies than those exposed to the lecture method at the end of 4 weeks. *Conclusion:* The results of this study indicate that students perceive innovative teaching strategies in a better way compared to the traditional teaching method as it enhances their motivation for learning, learner control, and self - directed learning abilities. However further evaluation with larger sample size is needed before it can replace traditional teaching methods in nursing education.

**Keywords:** Concept mapping, Innovative teaching strategies, Problem based learning, Psychiatric nursing learning.

**Introduction:**

In the last decades nursing, like any other profession, has undergone fundamental changes in order to meet the needs of the rapidly changing society [1]. Student perception refers to the ideas and views related to “what is right and what is wrong” or in other words we can say that “what they think about the educational techniques” that are used in present era. Educational techniques are the means or tools that are used to teach the students. Nursing teachers are being encouraged to use teaching methods which enables the students to be more responsible for their learning [2], and that the application of these methods presupposes different orientations and different attitudes. Teachers have to adopt the role of facilitator for learning [3]. Innovative teaching and learning strategies in nursing education are expected to promote nursing students to be actively involved in self-regulated learning, to transform traditional one-way delivery of knowledge to cultivate patient-centered teaching and learning model. The innovative strategies help nursing students to foster the ability of health informatics, communication skills, collaborative skills, reflection, cultural sensitivity, critical thinking, as well as evidence-based health care [4]. Majority of students find the lectures, tutorials and practical sessions to be beneficial to their learning and tutorials are considered to be the least preferred strategy adopted by the students according to a study conducted on the teaching mode efficiency and

learning preferences of first year nursing students. The perceptions and preference of contemporary teaching methods has been studied in among students at University of Pakistan revealing that students have chosen problem based learning PBL and case studies as the best teaching method and have attributed as integration of different teaching methods for better understanding [5]. A Jordanian study on baccalaureate nursing students' perception of their learning styles has shown that majority of the students perceived themselves to be independent learners [6].

The perception of students and teachers related to the causes of poor academic performance among students in Ogun State Secondary Schools in Nigeria have shown that teachers' qualification and students' environment do not influence students' poor performance but teachers' methods of teaching influence poor academic performance [7]. Perceptions of first year undergraduate students have indicated that students favoured teaching strategies that enhanced their own learning and they wanted good interaction between them and their teachers [8]. The available research shows that the students have an inclination for self- directed learning which is an innovative teaching and learning method and also promotes critical thinking. The purpose of this study is to identify learners' perceptions related to traditional and innovative teaching strategies.

#### **Material and Methods:**

The study examined the learning perceptions of undergraduate nursing students at a college of nursing in Bangalore. The study sample included 3<sup>rd</sup> year B.Sc nursing students studying in two different colleges in Bangalore. Colleges were randomly selected using simple random sampling technique and the method of teaching was assigned to different colleges by using the same technique. A sample of 22 students from each

college was enrolled in the study. Fifteen hours of instruction on assessment of mental health status and therapeutic communication was delivered using either traditional or innovative method of teaching as per the data collection plan.

The traditional method comprised of lecture for 60 minutes for 15 sessions. Innovative method of teaching included brain storming followed by concept mapping and problem based learning for 20 minutes each. Students who were already exposed to modern method of teaching as well as those not willing to participate were excluded from the study. The data was collected by using Student learning perception scale developed by the researcher.

#### **Ethical consideration**

The study was approved by the Institute Ethics Committee. Written consent was obtained from the participants and they were given freedom to quit the study. Participants' confidentiality was respected.

#### **Instruments:**

The learning perception of the undergraduate student of III Yr B.Sc Nursing was assessed by using Student learning perception scale developed by the researcher. The tool comprises of:

Section A: Comprises of items related to demographic variables. The items included the age, religion, area of residence, parent's education and medium of instruction.

Section B: This tool had 25 items under 5 domains namely critical thinking skills, interpersonal outcomes, self directed learning, learner control and motivation for learning. It was expressed in the form of 5 point likert scale. The students were expected to go through each statement carefully and express his/her perception in relation to the strategy used. The scoring was done in the following manner: A score of 5 is given for

Excellent, very good = 4, good = 3, average = 2 and not satisfactory = 1. The total score ranged between 25 to 125. Subjects were explained that their response was expected for all the questions. The content validity of the tool was established by experts in the field of nursing, psychiatry, psychiatric social work, psychology, statistics and general education. The final tool was modified according to the experts' suggestions. Reliability of the tool was established by test-retest reliability

which was 0.793;  $p \leq 0.001$ , indicating high precision of the tool. The final draft of the tool was pre tested before data collection.

**Statistical analysis**

The data were analyzed using appropriate statistics using and the results were presented in narratives and tables.

**Results:**

The results are summarized in tables in 1 and 2

**Table 1: Socio-Demographic Characteristics of the Study Subjects in Both the Groups**

Variable	Traditional Teaching group (N=22)		Modern Teaching group (N=22)		t	df	p value
	Mean	SD	Mean	SD			
Age (years)	20.86	0.71	20.23	0.42	3.59	42	0.001**
Income of parents	28363	10526	23636	9408	1.57	42	0.124
Scholastic performance of the students in the previous year	64.18	6.8	61.73	6.4	1.22	42	0.226
<b>Background</b>							
<b>Area</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	$\chi^2$	<b>df</b>	<b>p value</b>
Urban	7	31.80%	12	54.50%	2.3	1	0.128
Rural	15	68.20%	10	45.50%			
<b>Mother's education</b>							
Primary	2	9.10%	5	22.70%	1.23	2	0.245
Middle school	9	40.90%	6	27.30%			
High school	9	40.90%	6	27.30%			
Graduation	2	9.10%	5	22.70%			
<b>Father's education</b>							
Primary	-	-	-	-	3.37	2	0.185
Middle school	2	9.10%	5	22.70%			
High school	11	50.00%	13	59.10%			
Graduation	9	40.90%	4	18.20%			
<b>Medium of instruction</b>							
English	12	54.50%	8	36.30%	0.83	1	0.361
Regional language	11	45.50%	14	63.70%			

**Table 2: Effect of Traditional Vs Modern Teaching Strategies on Learning Perception of B.Sc Nursing Students on Psychiatric Nursing Learning**

Domains	Traditional Teaching Group (N=22)		t	p	Modern Teaching Group (N=22)		t	p
	Post test 1	Post test2			Post test 1	Post test2		
	Mean $\pm$ SD	Mean $\pm$ SD			Mean $\pm$ SD	Mean $\pm$ SD		
D1: Critical thinking skills	23.00 $\pm$ 3.31	22.50 $\pm$ 3.97	1.00	0.32	23.05 $\pm$ 3.32	23.80 $\pm$ 2.83	-0.775	0.448
D2: Interpersonal outcomes	14.00 $\pm$ 3.44	12.80 $\pm$ 3.02	2.30	0.31	14.00 $\pm$ 3.50	15.00 $\pm$ 2.52	-1.086	0.291
D3: Self- directed learning	13.50 $\pm$ 2.90	12.50 $\pm$ 2.51	2.18	0.04*	13.45 $\pm$ 2.90	16.15 $\pm$ 3.11	-3.090	0.006*
D4: Learner control	13.70 $\pm$ 3.11	13.43 $\pm$ 2.83	1.67	0.11	13.85 $\pm$ 3.11	15.60 $\pm$ 1.52	-2.185	0.042*
D5: Motivation for learning	20.24 $\pm$ 3.50	19.90 $\pm$ 5.87	1.36	0.18	20.25 $\pm$ 6.41	24.10 $\pm$ 3.62	-2.256	0.036*

\*indicates significant p value

respectively. As evident from (Table 1) the sample size of the present study was comprised of a total of 44 nursing students (22 in each of the strategies).

Socio-demographic characteristics: The age of the students in the traditional teaching group was slightly but significantly higher than the innovative teaching group ( $p=0.001$ ). The two groups were comparable on age, background, parents education and income and medium of instruction (all  $p>0.12$ ). The results are summarized in Table 1.

Table 2 summarizes the learning perception of the 3<sup>rd</sup> year B.Sc. Nursing students following exposure to traditional and modern teaching strategies. With regard to the domain on self - directed learning the mean and SD of the post test learning perception conducted on the 14<sup>th</sup> day of the modern teaching group ( $13.45 \pm 2.90$ ) and traditional teaching group ( $13.5 \pm 2.90$ ) showed significant difference ( $p<0.05$ ). Mean and SD of the post test 2 conducted on 28<sup>th</sup> day of the teaching in the modern teaching group showed an increase in the mean and SD from  $13.45 \pm 2.90$  to

$16.15 \pm 3.11$  with  $p<0.05$  indicating significant statistical differences in the student learning perception between the 2 groups following the teaching. The domain on learner control showed a significant difference with a mean and SD  $13.85 \pm 3.11$  on the 14<sup>th</sup> day and  $15.6 \pm 1.52$  on the 28<sup>th</sup> day for the modern teaching group. The domain on motivation for learning showed a mean and SD of  $20.25 \pm 6.41$  on the 14<sup>th</sup> day and  $24.1 \pm 3.62$  on the 28<sup>th</sup> day of the teaching. This was significant at  $p<0.05$  indicating that modern teaching strategies were effective in enhancing the self-directed learning, motivation for learning and learner control skills among the nursing students.

#### Discussion:

This study was an attempt to assess the learning perception of under graduate nursing students about traditional and innovative teaching methods in mental health nursing. In our study, majority of students were in favour of self- directed learning, motivation for learning and learner control in the innovative group than traditional teaching group.

However, the domain on self directed learning also showed a significant difference between the both groups ( $p=0.04$ ,  $p=0.00$  traditional and modern teaching groups respectively). These findings were similar to a study conducted among undergraduate nursing students that compared traditional and innovative approaches for success with millennial learners and the results showed that the students preferred active learning methods than the traditional teaching methods [9].

It is also inferred in a study that students are positive about new educational techniques. It was concluded that modern techniques help in effective learning and saves time of both teachers and students. Using of these techniques motivates students [10].

This clearly indicates that Problem Based Learning (PBL) is a teaching method that enables nursing students work in groups to determine the best response to a realistic scenario. Cannon and Newble [11] suggest that PBL also requires students to develop a whole range of skills to enable them to learn effectively, including information skills, team working skills, communication and most importantly, high order cognitive skills for professional development. However in the present study a combination of teaching methods has been used and the student's perceptions have been assessed among Indian students. The use and perceptions of concept mapping as a learning tool by dietetic internship students and preceptors showed that concept mapping has been effective in assisting them to engage in critical thinking, to problem solving, and understand relationships among medical nutrition therapy concepts [12]. In line with the previous study, [11] the present study also shows an increase in the critical thinking skills domain from  $23.05\pm 3.3$  to  $23.80\pm 2.8$  at the second and 4<sup>th</sup> week of the assessment in the innovative teaching group.

However, there was a decrease in this domain in the means of the second and fourth week assessment in the traditional teaching group  $23.0 \pm 3.3$  &  $22.5\pm 3.9$ . It was also found in an earlier study among BDS students that concept mapping has been a useful pedagogical tool that accelerated meaningful learning in pharmacology as a supplement to traditional teaching techniques [13]. In the present study, mean scores on the student learning perception scale, critical thinking skills,  $23.80\pm 2.8$ , interpersonal outcomes  $15.0\pm 2.5$ , self directed learning  $16.15\pm 3.1$ , learner control;  $15.6\pm 1.5$  motivation for learning  $24.1\pm 3.6$  domains have increased at the end of 4 weeks compared to the second week assessment in the innovative teaching group. On the contrary, there has been a decline in the mean scores in the 4<sup>th</sup> week assessment as compared to the 2<sup>nd</sup> week assessment in the traditional teaching group. This study has used a combination of concept mapping and problem based learning methods and has found that innovative teaching methods enhance the motivation level of the students in addition to the critical thinking skills and self directed learning. The learner control also increases subsequently along with the interpersonal outcome of the students.

The present study findings have been also supported by a similar study that assessed the students' perception of a modified form of PBL using concept mapping inferred that the students preferred the concept mapping and PBL approach than the conventional teaching method [14]. Students have chosen PBL as the best teaching method and have preferred the integration of different teaching methods for better understanding [15]. Students are both familiar and comfortable with traditional teaching strategies such as lecture and PowerPoint presentations [16]. Walker [17] asserted that the lecture method does

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not draw out student input and forfeits the opportunity for students to determine what information is essential to know. Concept mapping, and problem based learning are active teaching strategies that can help nurse educators prepare graduates to think critically in today's complex health care environment [18]. Thus, it is recommended that the innovative teaching strategies have to be incorporated in curricula and promoted in the nursing education system as it fosters the essential learning skills for the students in a comprehensive and meaningful way.

This study had certain limitations such as a small sample size that made generalization difficult. Future studies could include a larger, randomized sample for a better understanding of the students' perception about the various teaching strategies. Despite of these limitations the results of this study does have an implication for the nurse educators to incorporate innovative teaching methods in teaching learning process to enhance the learning behavior of the students.

**Conclusion:**

In conclusion, the nursing students in the present study have perceived the innovative teaching method better than the traditional methods. Recent trends in education point to a shift from a traditional teaching paradigm of teacher-directed and traditional lecture format to a learning paradigm of self-directed, interactive learning [19]. The current study has been a contribution towards how students think and feel about the teaching strategies. These findings are of great concern to the field of nursing education as there is a need for this change to happen. Further more studies are also needed to assess the existing teaching styles and modify them according to the needs of the students and the society.

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