

## The relationship between team teaching training program, teachers' performance and students' satisfaction

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**Abstract:** The development of an effective team is a process that takes time. In fact, team members should not be clones of each other, because differences in subject expertise, styles, perspectives, interest, educational backgrounds, gender, and upbringing can contribute to the collective strength and beauty of a team. Also, the 'mix' of personalities and characteristics add to the experience the students get from interacting with the team. Hence, there has been a conscious movement towards building effective teams as a strategic vehicle for accomplishing work. This study explores the relationship between team teaching training program, teachers' performance and students' satisfaction. **Aim of the study:** to determine the effect of team teaching training program on nursing teachers' performance and students' satisfaction level. **Study design:** Quasi experimental one group pre – posttest design. **Subjects:** Included all clinical nurse educators (CNEs) responsible for clinical training and willing to participate in the study from Medical-Surgical, Obstetric, and Administration Departments at the Faculty of Nursing, Damanshour University (44 CNEs) at the time of the study. **Results:** Based on the finding of the present study, we concluded that the overall clinical nurse educators (CNEs) performance and students' satisfaction level improved after application of team teaching training program.

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**Key words:** team-teaching, teachers' performance and students' satisfaction.

**Abbreviation:** clinical nurse educators (CNEs)

### 1. Introduction:

The demand for successful teaching depends on collective knowledge and richness of diverse perspectives which requires the need for collaboration and teamwork in all parts of organization (*Nor et al., 2012; Moyer et al., 2008 and Herlihy, 2016*). Currently, there has been a conscious movement towards teams as a strategic vehicle for accomplishing work. In particular, teams provide meaning, union and importance to the people who are involved with them. Ultimately, they have become the vehicle that moves organizations into the future delivering quality products and services (*Shulman, 2005*).

Team teaching was introduced in America, as early as 1963, by William M, Alexander, who is known as the "father of the American middle school." Now, team teaching is used at all grade levels and across disciplines (*W.H.O, 2003*). The notion of team teaching requires a faculty at a university to provide an opportunity for a team of three to five lecturers to work together and share a group of students (*Nor et al., 2014*). When teaming occurs, most schools ranging from kinder garden to colleges or universities use an interdisciplinary or heterogenic design with educators teaming from different disciplines. The most common disciplines are English and history teaching (*George and Alexander, 1993*).

Team teaching is a strategy which offers an alternative to traditional single educator methods. It occurs when two or more educators do what a traditional educator has always done (*Day and Hurrell, 2012*). Team teaching can be defined as an effective strategy of co-teaching models and an equal partnership characterized by educators with different levels who have total shared responsibilities for assessing, planning, teaching, grading, evaluating together, and administrative support in clinical areas as well as in the classroom (*Thousand et al., 2006*).

Moreover, it is a viable strategy for creating and maximizing strengths in curriculum, instruction, behavior management and discipline, and accommodation and modification (*Rea et al., 2005*). It has a number of benefits including: a greater collegial exchange of strategies between educators, availability of help is greater and decreased burnout for educators. Team teaching in nursing education allows CNEs to tap into the knowledge and experiences of a variety of educators. It differs remarkably from the more traditional teaching styles, which seclude CNEs and make relatively inefficient use of resources (*Erbes et al., 2009*).

Majority of the research demonstrated that teams failed for a number of reasons from lack of a clear purpose to lack of training (*Yanamandram and*

*Noble, 2005*). In addition to, lack of a sufficient charter that defines the team's purpose and how it will work together to achieve that purpose; inability to decide what constitutes the work for which they are interdependent and mutually accountable; lack of mutual accountability; lack of resources to do the job which includes time; lack of norms that foster creativity and excellence; lack of planning; lack of management support; inability to deal with conflict and lastly, lack of training at all levels on group skills (*Austin, 2001*).

So, this study provides an opportunity to shed light on team teaching training program in nursing education at the university level. Thus, this paper discusses the effectiveness of training program that enhances the nursing education in the university.

**Aim of the study:**

To determine the effect of team teaching training program on nursing teachers' performance and students' satisfaction level.

**Materials and Method**

**Design:**

Quasi experimental one group pre – posttest design.

**Setting:**

The study was conducted at Medical-Surgical, Obstetric, and Administration Departments at Faculty of Nursing, Damamhur University in addition to Medical, Surgical, and Obstetric Units at National Medical Institute, where the students' clinical experiences are carried out.

**Subjects:**

The subjects of this study included all clinical nurse educators responsible for clinical training and willing to participate in the study from Medical-Surgical, Obstetric, and Administration Departments at the Faculty of Nursing, Damamhur University (44 CNEs) at the time of the study, in order to have enough number of staff to obtain proper composition of team teaching levels. Moreover, 200 students from the previously mentioned departments were participating in the study.

**Tools:**

Three tools were used for data collection:

**Tool I: Nurse Educators' Team Teaching Knowledge Questionnaire:**

This tool was developed by the researcher based on review of literature (*Day and Hurrell, 2012*) (*Stewart, 2005; Day, 2012; Moffat, 2010; Anderson, 2006; Dyrud, 2010; Coffey, 2006; Murawski, 2004; Gameson, 2005 and Goetsch, 2010*) to assess the CNEs' knowledge about team teaching.

**Tool II: Clinical Nurse Educators' Performance Evaluation Tool:**

This scale was developed by Patchaivaziamman, and Krishnamurthy, (2010) (*Patchaivaziamman and Krishnamurthy, 2010*).

**Tool III: Student Reaction Form to Measure Student Satisfaction:**

This tool was developed by the researcher based on the review of literature (*Friend, 2010; Zaragosa, 1998; Olorunnisola, 2003 and Adamson, 2004*) to measure students' satisfaction level after the implementation of the program.

**2. Method**

1. An official approval was obtained.

2. Tools of the study were developed after a review of relevant literature. Then, the tools were tested for content validity by a jury of five experts in the field of medical surgical nursing. Tools reliability were tested by Cronbach's co-efficiency alpha test for tool I ( $r=0.77$ ) and for tool II ( $r=0.78$ ).

3. A pilot study was carried out on 10% of total number of the study subjects.

4. Team Teaching Training Program preparation as follow:

- Preparation phase of the program as program objectives, and program content.

- Planning phase of the program as the class room for implementing the training program, as well as preparing the teaching materials, divided the subjects into two groups to attend the program daily each group consists of 22 CNEs with different academic positions.

- Implementation phase each group of the two groups received the training program daily for five days. Each session lasts for two hours, one third of the session covered theoretical knowledge and the other two thirds were for skills application and practice.

- Evaluation phase for clinical nurse educators through Post-test immediately after the program and then after one month using the study tools. For students through assessing students' satisfaction level related to the application of team teaching strategy after one month from of the implementation of the program.

**Ethical consideration**

Before starting the actual study, oral informed consent to participate in the study was obtained from the participants. Confidentiality and privacy of the study subjects were maintained.

**Statistical analysis**

After data were collected it was revised, coded and fed to statistical software SPSS version 16. The given graphs were constructed using Microsoft excel software. All statistical analysis was done using two tailed tests and alpha error of 0.05. P value of 0.05 or less is considered to be significant.

**3. Results**

**Table (1)** Shows knowledge changes during the different study phases among the CNEs. There was statistical significant improvement in the CNEs overall knowledge changes as it increased from (26.3 ± 11.0) to (54.8±9.7) at p (0.001).

**Figure (1)** illustrates the changes in attitudes toward team teaching among CNEs during the three phases of the study. As 70.5% of the CNEs had neutral

attitude toward team teaching before the program compared to 34.1% had the same attitude after the training program. As for the positive attitude the studied CNEs records a significant change from the pre intervention phase to post intervention phase from 27.3% to about 75% of the studied CNEs and then decreased to 65.9% after one month of implementing the training program (P < 0.05).

**Table (1)** Overall knowledge changes during the different phases of the study among the clinical nurse educators

Knowledge items	Pre intervention		Post intervention		Follow-up after 1 month		F (P)
	Mean	SD	Mean	SD	Mean	SD	
Total knowledge changes about team teaching skills	20.1	10.4	47.8	6.8	42.6	8.9	69.4 (0.001)*
Overall changes of knowledge	26.3	11.0	59.9	7.7	54.8	9.7	66.7 (0.001)*

F: repeated measures ANOVA\* P < 0.05 (significant)

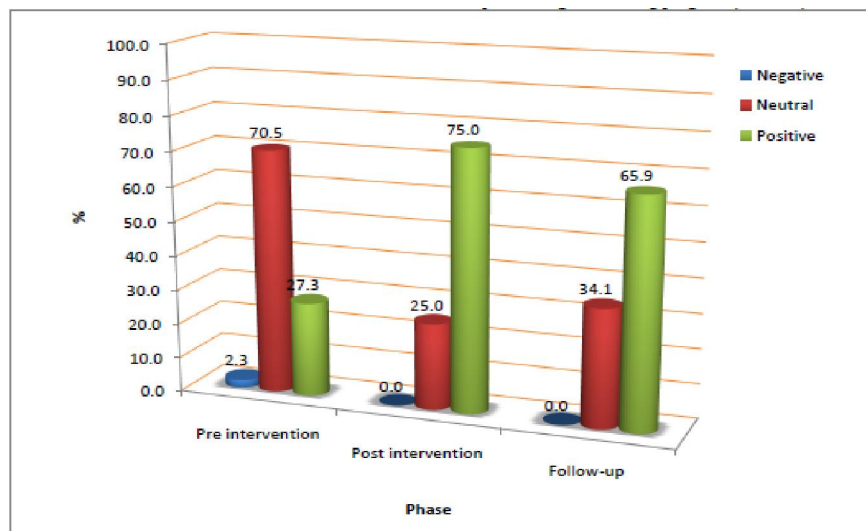


Figure (1): Changes in Clinical nurse educators' attitudes toward team teaching during the study phases

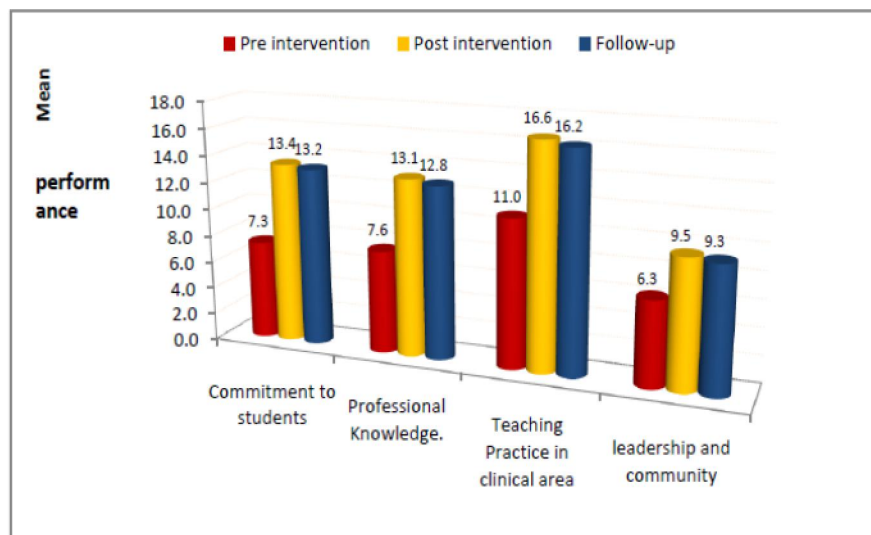


Figure (2): Teaching performance changes among clinical nurse educators during the different study phases

**Figure (2):** illustrates the overall performance changes among CNEs during the different study phases. There was increased in mean of the CNEs in the overall domain of the commitment to students from pre intervention phase to follow up phase (7.3 to 13.2 respectively). Regarding the total professional knowledge the CNEs recorded increased in mean from pre intervention phase to follow up phase (7.6 to 12.8). As for the overall teaching practice in clinical area the CNEs recorded higher mean score from pre intervention phase to follow up phase (11.0 to 16.2). The figure shows that the leadership and community domain were significantly increased in mean from pre to follow phases (6.3 to 9.3).

**Table (2)** shows the students' level of satisfaction related to team teaching experience from students'

point of view. 72.5% of the students stated that the strategy provide satisfactory level of critical thinking to the students. Regarding the educators' response to students' needs, all the students stated that it was satisfactory. As regard to communication, the majority of students stated that the communication among educators and students was satisfactory (97%), while, communication among students was satisfactory (97.5%). The same table shows that the interaction between students and patients had satisfactory level by 96.5% of studied students. Regarding the clinical evaluation with team teaching practice 78% of the students stated that it was satisfactory compared to 22% stated that it was unsatisfactory.

**Table (2)** Students' level of satisfaction related to team teaching experience from students' point of view

Student level of satisfaction from team teaching experience n=200	Satisfactory		Unsatisfactory	
	No	%	No	%
Availability of critical thinking opportunities	145	72.5	55	27.5
Clinical team teacher response to students needs and feedback	200	100.0	-	-
Communication between clinical team teacher and students is more clear	194	97.0	6	3.0
Communication among students each other	195	97.5	5	2.5
Interaction between students and patients	193	96.5	7	3.5
Clinical evaluation with team teaching	156	78.0	44	22.0

**Table (3):** illustrated the distribution of positive and negative aspects of team teaching and suggestions for improvement from students' point of view. They stated that the teaching way of the educators was better than before as a positive aspects that was mentioned by 78% of the students, as well as interesting in working in team was mentioned by

73.5% of the study subjects while, 83% of the students stated that they need to know the plan enough before starting time as a negative aspect of the strategy. Regarding the students' suggestions 49% stated that the strategy needs more time for implementation, while, 84% of them mentioned that the work needs more planning before starting.

**Table (3)** Distribution of positive and negative aspects of team teaching and suggestions for improvement from students' point of view (n= 200)

Items	No	%
<b>Positive or negative aspects of team teaching</b>		
<input checked="" type="checkbox"/> <b>Positive aspects:</b>		
▪ The educators teaching methods were better than before.	156	78.0
▪ Interesting to work in a team	147	73.5
<input checked="" type="checkbox"/> <b>Negative aspects</b>		
▪ Students need to know the plan enough time before the starting time	166	83.0
<input checked="" type="checkbox"/> <b>Students Suggestion</b>		
▪ More time is needed for applying team teaching strategy.	98	49.0
▪ More planning is needed for the presented work	168	84.0

#### 4. Discussion

Team teaching should be used as a form of re-conceptualized continuous professional development (*Letterman and Dugan, 2004*). It is used in many colleges and universities to foster learner enthusiasm and inquiry and to promote interdisciplinary learning (*Watson, 2012*). The encouragement of team teaching,

built in opportunities for learners to be engaged in intercultural and international understanding, as well as the encouragement of their appreciation of social behavior and community responsibility is another active learning vehicle (*Friend and Cook 2003*).

Interest in team teaching of university and higher education was seen as a way to gain control of a large

group of students and a way of directing the educators' teaching method and strategy. Team teaching is also promoted as a way to add diversity in the classroom as well as the clinical area, which ultimately helps the achievement of students (*teacher center, 2010*).

In the present study, the results revealed that CNEs' knowledge related to team teaching definition, team teaching phases, and factors that enhance the team teaching strategy were significantly improved during all the study phases. This improved knowledge provides clinical nurse educators with a baseline for skill improvement. These findings could be due to the careful assessment of educational needs of the clinical nurse educators by the researcher before preparing the program and selecting the necessary content and strategies of training that would fulfill and satisfy the needs of the particular study group.

These findings were supported by Stewart, (2005) (*Stewart, 2005*) who stated that team teaching could be taught via either in-service or pre-service training program for practicing teaching, as part of the curriculum for the teaching candidates by teaming individuals with various levels of expertise. Moreover, Battershell, (2011) (*Battershell, 2011*) stated that the reason for that is team teaching needs at least a minimal knowledge of the various approaches, roles and responsibilities, and effective strategies in working collaboratively. In addition Friend et al (2010) (*Friend and Cook, 2010*) maintained that high quality professional development for team educators should include joint coaching sessions.

Regarding the CNEs' attitudes toward team teaching, the results of this study revealed that two thirds of the studied CNEs had a significant change in their attitudes from a negative or neutral attitude at the pre implementation phase of the training program to a positive attitude at the post implementation phase. This improvement can be explained by the appreciation of the studied team teaching members to the offers that team teaching provided as a supportive learning environment as they benefit from each other's experience. In addition, team teaching enabled CNEs to use their abilities and talents to improve students' outcomes, so they felt happy and satisfied' which reflect on providing self-fulfillment.

Ercolano (2007) (*Ercolano, 2007*) stated to this effect in his study that team teaching offered a positive classroom as well as clinical area social climate which improved learning for both students and educators. Also Jang (2006) (*Jang, 2006*) stated that educators viewed team teaching as superior to traditional teaching as team teaching encouraged educators to perfect their teaching skills and teaching approaches.

As for the CNEs' performance level, the results showed that there was a significant improvement in the CNEs' performance related to clinical work and

teaching skills aspects. In relation to the commitment to students it can be observed that CNEs demonstrate a positive relationship with students to facilitate the interaction among them through promoting respectful students' interaction and guided students' behavior in a positive manner. This may be due to the interaction with and learning from fellow colleagues in contact while teaching together.

Battershell (2011) (*Battershell, 2011*), and Webster-Wright (2009) (*Webster-Wright 2009*), supported these findings by reporting that educators work together to learn together or teach one another new teaching methods, strategies, and technology. Therefore, they recommend that professional development be re-conceptualized to reflect a change for educators so educators experience an opportunity for growth throughout the year, not just when they attend a conference.

As for students' level of satisfaction about team teaching strategy, the present studies revealed that majority of the studied students were satisfied with the team teaching strategy. The explanation for these results from students' points of view were that the strategy provided them with different opportunities for critical thinking, improving communication with them and between them and the CNEs, also the CNEs provided them with immediate feedback, and clear clinical evaluation.

This finding was supported by Oitzinger and Kallgren, (2004) (*Oitzinger and Kallgren, 2004*) as they found that students in their studies were satisfied with team teaching because it provided them with different views on topics and made the learning environment more interesting, helpful, and the learning climate encouraged them in the critical thinking abilities which usually led to a quite challenging discussion. Moreover, they stated that student perspectives broadened multi-dimensionally, and opportunities for more complex problem solving multiplied for both educators and students.

As regards positive and negative aspects of team teaching and suggestions for improvement from students' points of view the current study revealed that the majority of the studied students mentioned that the application of team teaching strategy had a positive effect on the educators teaching skills than before and they were interested in working in a team. But, they mentioned they needed to know the clinical team teaching plan enough time before starting and they considered not having this done as a negative aspect. The results of this study go in line with Vogler and Long, (2003) (*Vogler and Long, 2003*) they stated that the studied students mentioned that they considered working in teams in their work field as a positive aspect. But, on the other hand, in their study the negative aspect mentioned by the students was they



felt confused and they cited possible conflict that could develop between educators.

Moreover, the studied students in the present study suggested that to improve the application of team teaching strategy the CNEs need to allow more time for applying the strategy and more planning for the work presented during the clinical courses.

Finally, the results of this study revealed that before conducting the team teaching training program, the study group recorded a low score of knowledge about team teaching and attitudes toward team teaching, as well as teaching skills. But, after the conduction of the training program the score of knowledge about team teaching, attitudes toward team teaching, and teaching skills increased. In addition, the studied students recorded a higher satisfaction level after the conduction of training program. Therefore, providing pre-service team teaching training program for newly appointed CNEs in order to help them acquire the necessary knowledge, skills and attitudes related to team teaching is a priority of such integrated teaching strategy.

### Conclusion

Based on the finding of the present study, we concluded that the overall CNEs performance and students' satisfaction level improved after application of team teaching training program.

### Recommendations

- Inclusion of team teaching as a new strategy of teaching in nursing courses for both under and post graduate courses.
- CNEs should attend conferences, training programs, and workshops about advanced concepts in team teaching to enhance team teaching skills among all clinical nurse educators and preceptors in faculties of nursing.
- Study the application of interdisciplinary team teaching between nursing and medical courses.
- Examine creativity and collaboration among students taught by team teaching.

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