The Effect of Cooperative Learning Strategy on Undergraduate Nursing Students Enrolled in Nursing Administration Course

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Abstract

Today's, higher education emphasizes the importance of student centered learning. Further the aim of nursing education should be on the process of thinking and involve being proactive, collaborative and quality oriented. Cooperative learning is an approach to the aim of student-centered activities towards the attainment of the outcomes-based environment as required by accrediting and certifying bodies and agencies of higher education. Cooperative learning most often involves small groups of students who contribute to each other's learning. It is one of the innovative teaching strategies can be incorporated in the nursing curriculum for the better results and it is a great tool that can be used to enhance and promote higher student achievement. Therefore, a variety of teaching strategies have been designed to be used in teaching, ranging from teacher-centered strategies to more student-centered ones. Hence, the present study aims to assess the effect of cooperative learning strategy on undergraduate nursing students enrolled in nursing administration course at Faculty of Nursing, King Khalid University, Saudi Arabia. A one-group before–after quasi-experimental design was used. The study was conducted at Faculty of Nursing at King Khalid University, Saudi Arabia. All nursing students enrolled in the eighth at the time of the study of the academic year 2015-2016were included in the study. Four tools were used for data collection namely; The Revised two-factor Study Process Questionnaire (R-SPQ-2F), Teamwork perception survey, Students' Self-Perception Leadership Questionnaire, and Students' Opinner Questionnaire Sheet. A major finding of the present study revealed there was statistical significant difference between the pretest and post-test mean scores of students' deep learning approach, team perception of learning and self-perception of leadership of student. While there was no a significant difference was observed between the pre-test and post-test mean

scores for the surface approach to learning. It was concluded that cooperative learning as a method and philosophy is an effective approach to fostering deeper approach to learning and improving communication skills of nursing students especially in interactive skills, team work, and their leadership abilities among nursing students. It is recommended to the successful introducing of cooperative learning in nursing education will improve professional performance.

Keywords: Cooperative learning, Strategy, Nursing administration.

1. Introduction

The nursing discipline is growing, and higher education in nursing aims to prepare students to develop their capabilities to become independent professionals with a lifelong learning, enabling them to adapt their knowledge in relation to advances in both nursing theory and practice. In higher education emphasizes the importance of student centered learning [1]. A key area for consideration in nursing education is how optimal conditions for learning can be created. A teacher-centered learning technique that implies asymmetrical power relations between students and teachers might serve as a poor model for students future patient nurse interactions [2].

A primary goal of nursing education is application of acquired knowledge from educational environments to clinical environments and society towards desired health outcomes. The nursing education needs to accomplish problem solving, critical thinking skills thereby improving the student's academic achievement [3]. Student-centered learning means that students have more responsibility for their own learning and are more engaged in educational processes. Different student-centered learning methods will help students expand concepts and apply the knowledge at clinical environments through group as cooperative learning [4].

Cooperative learning is an approach to the aim of student-centered activities towards the attainment of the outcomes-based environment as required by accrediting and certifying bodies and agencies of higher education. However, collaborative learning includes a variety of activities spanning from instructors pairing up students and having them share with one another or complete simple cooperative exercises to creating "learning teams" that work together for an extended time to complete more complex learning activities [5]. The instruction and activities based on cooperative learning are creative, thought provoking and interactive and offer ideas for how the student can live the value in practice and find the answers from within themselves [6].

Cooperative learning also creates and hones future leaders where dedication and commitment to serve the group is an experience that would cultivate their leadership skills. It is also a responsibility of everyone in the academic community to provide an outcomes based environment that would help shape the character and values of the learners [4]. The learning outcomes of the students gained from the cooperative learning serve as an essential product in an effort to provide quality education for the future leaders of the world. Cooperative learning is a great tool that can be used to enhance and promote higher student achievement [6].

Cooperative learning most often involves small groups of students who contribute to each other's learning. Student interactions lead to opportunities for improving communication skills, and more importantly, to collective problem-solving [7]. The objectives of cooperative learning are generally recognized as the improvement of interpersonal skills, content knowledge, and higher-level thinking ability. Through interaction students learn to interrogate issues, share ideas, clarify differences, and construct new understandings [8].

Further the aim of nursing education should be on the process of thinking and involve being proactive, collaborative and quality oriented. Nurse educators must continually improve their teaching skills through innovation [3]. Nurse educators need to shift the paradigm toward a more learner-centered environment. Cooperative is one of the innovative teaching strategies can be incorporated in the nursing curriculum for the better results. Cooperative learning could help educators move away from competitive or individualistic teaching methods and assessment [9].

In higher education, establishing group work assignments is a teaching method to develop group work skills. As part of the process of nursing students becoming work ready within future health care teams, students need the skills to work collaboratively [10]. Not only is group work an important teaching method to develop effective group work skills but it is also used to activate deep learning. Developing group work skills amongst students is seen as crucial, not only within university and professional contexts, but also more broadly as part of lifelong learning [11].

Undergraduate nursing students need to develop a range of skills that relate to being an effective group member in the university environment, and as members of health care teams in clinical settings to deliver effective and safe patient and family care [12]. Group work is considered to be an effective learning strategy at university, which requires students to negotiate meaning with their peers, share ideas, collaborate, and reflect and report on learning experiences. It also provides practice and preparation for the development of these skills and behaviors which are needed in the workplace [13].

Quality of learning is influenced by how students approach studying. Interest in researching students' approaches to learning has continued over the last three decades unabated. Deep learning is generally deemed as preferable to the surface learning approach, whereby students may use rote learning to reproduce factual content with little understanding [14]. Surface learning means the acquisition of knowledge only with the external motivation of passing exams. However, deep learning involves the acquisition of knowledge and understanding of the underlying principles, mechanisms, critical thinking, analysis, and possible applications. A deep learning approach is usually regarded as a commitment to understand and construct meaning of the learning content using a variety of strategies and resources, relating and integrating new ideas to previous knowledge [15,16].

The use of innovative teaching methods in educational institutions has the potential to improve education. The cooperative teaching learning method is one of the innovative teaching and learning methods, and an innovative methodology, occurs when students work together in groups to achieve shared learning goals. The learning environment in cooperative

learning encourages all the students to work together on academic tasks. It is an instructional strategy whereby students learn to work in small groups to maximize the learning outcome [17].

1.1. Significant of the study

Generally, education is a very important field, where through this domain it is hopeful that a responsible and well-educated generation would emerge to lead mankind in the future. In order to achieve this goal, many things should be given attention and emphasis. One of these is to ensure that the teaching methods used by teachers are compatible with students. Previously, educators used to consider students as passive listeners whose mind is an empty vessel that needed to be filled by the teacher with the appropriate knowledge. Presently, educators believe that students learn best when they take an active role in their learning [18]. Science education research conducted in the past few decades has focused on understanding how students learn and how to help them construct personal understandings of scientific concepts. Science educators found that the use of student-centered teaching strategies in the science classroom within an overall inquiry-based pedagogy is an effective way to enhance students' academic performance, critical thinking, and problem solving skills. Educators have been striving to devise teaching methods to improve science outcomes. Therefore, a variety of teaching strategies have been designed to be used in teaching, ranging from teacher-centered strategies to more student-centered ones.

2. Research Hypotheses

1. Cooperative learning experience will foster deep learning approach among bachelor nursing students

2. Cooperative learning experience will increase students' self-perception team work and leadership abilities among bachelor nursing students .

3. Aim of the Study

The study aims to assess the effect of cooperative learning strategy on undergraduate nursing students enrolledin nursing administration course at Faculty of Nursing, King Khalid University, Saudi Arabia

4. Subjects and Methods

4.1. Design

A one-group before – after quasi-experimental design was used in the study.

4 .2. Setting

The study was conducted at Faculty of Nursing, King Khalid University, Saudi Arabia. The Faculty of Nursing was established in 2008, and developed as a traditional comprehensive governmental institution. It included the mentioned teaching nursing departments; Medical-surgical nursing, Pediatric nursing, Obstetrics nursing, Primary nursing, Psychiatric nursing, Community nursing, and Nursing administration. In the last few years, Faculty of

Nursing- King Khalid University follow accredit hours policy.

4.3. Subjects

The total number of the nursing students enrolled in eighth academic level (n=43 nursing students) at the Nursing Administration course, at Faculty of Nursing- King Khalid University

4.4. Tools of data collection

Tool 1: The Revised two-factor Study Process Questionnaire (R-SPQ-2F) . It was used to measure the students' approaches to learning. It is a 20-item instrument with deep and surface approach scales (10 items per each learning approach scale) , subjects were asked to indicate how true each item was of themselves by rating a 5-point Likert scale to evaluate the learning approaches (*1 = 'the item is never or only rarely true of me' to 5 = 'the item is always or almost always true of me'*) , the total possible score on the deep learning approach scale ranges from 10 to 50 and the same for the surface learning scale. It has acceptable Cronbach alpha values for scale reliability (0.73 for the deep learning approach scale and 0.64 for the surface learning approach scale) . Confirmatory factor analysis indicates a good fit to the intended two-factor structure, with a comparative fit index value of 0.992 and a standardized root mean squared residual value of 0.015 [19] .

Tool 2: Teamwork perception survey. It was developed by **Parmelee, et al.** [20] and adapted by the researcher to assess students perception of teamwork. It was composed of 20 items grouped under five subscale namely; overall satisfaction with team experience (5 items) , team impact on quality of learning (3 items) , satisfaction with peer evaluation (4 items) , professional development (4 items) , and team impact on clinical reasoning (4 items) . Students responded using a 5-point Likert scale ranged from "strongly agree" to" strongly disagree". .

Tool 3:Students' Self-Perception Leadership Questionnaire. Itwas used to evaluate students' self-perception of the Leadership Skills. The questionnaire includes 23 items and was developed by **Townsend & Carter** [21] .The questionnaire contains five components namely; Teamwork (5 statements) , Self-Understanding (5 statements) , Communication (4 statements) , Decision Making (3 statements) and Leadership (6 statements) .Therefore, the scales have different ranges of possible results: Teamwork and Self-Understanding: 5-25, Communication: 4-20, Decision Making: 3-15 and Leadership: 6-30. Students responded using a 5-point Likert scale ranged from "strongly agree" to" strongly disagree".

Tool 4: Students' Opinner Questionnaire Sheet. It was developed by the researcher to assess students' opinions related to cooperative learning as a teaching strategy. It includes 15 items related to their attitude regarding to cooperative learning as a teaching strategy. In this part of the questionnaire, the students were asked to response by using two answers yes or no.

4.5. Methods of Data Collection

- An official agreement was obtained from the Dean of the Faculty of Nursing, at King Khalid University, Saudi Arabia to collect the necessary data.

- An orientation guide was developed by the researchers and distributed to the students one week before the course to prepare the students for using cooperative learning approach.

- A pre-test of their approaches to learning undertaken using the Revised two-factor Study Process Questionnaire (R-SPQ-2F) and students' self-teamwork perception and Leadership

- The students were divided into seven groups each group includes six students

- Seven paper cases were constructed (it is a real cases taken from student experience and real hospital environment) and modified by the instructor to fit course objective)

- The students were assured that their participation was entirely voluntary and informed of their rights as research subjects. Oral informed consent was obtained from all students.

- The constructed seven paper cases were distributed on the students groups, then each group work on their case and presentation their case among other groups.

- On completion of the course, a post-test of students approaches to learning, students' self-teamwork perception and Leadership.

- Evaluate students' opinions related to cooperative learning as a teaching strategy by using Students' Opinner Questionnaire Sheet for the each group to explore their opinions for implementing cooperative learning strategy

-Research of data were collected in the second semester of the academic year 2016.

4.6. Statistical analysis

The collected data were organized, tabulated and statistically analyzed using SPSS software statistical computer package version 19.0. Data summarized using mean and standard deviation for numerical variables. Also paired t test was used to test the difference between pre and post scores of both the revised two factor Study Process Questionnaire (R-SPQ-2F) and Self students' Self-Perception teamwork and leadership. The level of significance selected for this study was $p \leq 0.05$ level.

5. Results

Table 1 shows difference between the pre-test and post-test students' approach to learning mean scores. It was observed there was statistically significant between the pre and posttest mean scores for deep learning approach mean score (P=.000) . As regarded to surface approach to learning as measured by R-SP-2F, the pre test scores ranged from 18 – 44 with mean score 30.279 ± 5.355 indicating that this group of students tend to assume more surface learning approach at the beginning of the course and maintained their surface learning approach after finishing the course (mean and SD was 29.534 ± 2.986) . However, the difference between the pre and posttest mean scores for surface learning approach subscale was no statistically significant.

Table 2 illustrates The difference between the pre-test and post-test students' Self-Perception teamwork survey mean scores. As shown, the students self-perception teamwork scores of Pre-test ranged from a low score of49 to a high score of 73with a mean60.883and a standard deviation of 5.137.Students self-perception teamwork scores on completion of the course (post test scores) ranged from a low score of 54 to a high score of 79 with a mean of65.860 and a standard deviation of 6.548, indicating that at the end of the cooperative learning, this group of students maintained an average level of team work abilities. In relation to the difference between the pre and posttest mean scores for total score of students self-perception teamwork scores, there was a statistically significant increase in the posttest mean score (P=.000) . Also there were statistically significant differences between the means of the overall satisfaction with team experience at the beginning of the course (pretest) and after completion of the course (posttest) , the levels of significance Was (P=.000) .

Table 3 shows the difference between the pre-test and post-test students' Self-Perception Leadership mean scores. It was observed that the students' self-perception leadership scores of Pre-test ranged from a low score of 48 to a high score of 98with a mean 64.255 and a standard deviation of 9.219. Students self-perception leadership scores on completion of the course (post test scores) ranged from a low score of 65 to a high score of 93 with a mean of 77.395 and a standard deviation of 5.888, indicating that at the end of the cooperative learning, this group of students maintained an average level of leadership abilities.In relation to the difference between the pre and post-test mean scores for total score of leadership perception , there was a statistically significant increase in the posttest mean score (P=.000) . Also there were statistically significant differences between the means of the all leadership subscales at the beginning of the course (pretest) and after completion of the course (posttest) .

Table 4 shows Number and percentage of students' agreements regarding their attitude of cooperative learning. It was observed that the majority of 72.1% and69.8% students reported that cooperative learning helping them in learning content of class and facilitating for communicating effectively while completing our group work. And 67.4% and 65.1% considered cooperative learning helping students to improve their grade, learning activities were funny, and learning better in a team setting.

Table 1:The difference between the pre-test and post-test students' approach to learning mean scores (n=43)

Items	Mean± SD.		Min - Max	t-test	p- value
Deep learning approach	Pre-test	25.511±5.016	15.00- 37.00		
	Post – test	34.488±3.724	27.00-43.00		
	Pre-& post-test difference				

				-7.696	.000
Surface learning approach	Pre-test	30.279±5.355	18.00-44.00		
	Post – test	29.534±2.986	24.00-36.00	.718.718	
	Pre-& post-test difference				.477

Table 2: The difference between the pre-test and post-test students' self-perception teamwork survey mean scores (n=43)

Items	Mean± SD.		Min - Max	t-test	p-value
Overall satisfaction with team experience	Pre-test	14.558±2.085	10.00-18.00		
	Post – test	17.139±3.090	10.00-22.00		
	Pre-test - post-test difference			-4.974	.000
Team impact on quality of learning	Pre-test	9.232±2.990	3.00-14.00		
	Post – test	10.046±1.661	7.00-13.00		
	Pre-test - post-test difference			-1.485	.145
Satisfaction with peer evaluation	Pre-test	12.069±2.120	8.00-18.00		
	Post – test	12.790±2.833	7.00-17.00		
	Pre-test - post-test difference			-1.351	.184
Professional development	Pre-test	12.488±2.566	5.00-18.00		
	Post – test	12.930±2.898	6.00-19.00		
	Pre-test - post-test difference			-.766	.448

Team impact on clinical reasoning	Pre-test	12.534±1.968	9.00-17.00		
	Post – test	12.953±3.062	7.00-19.00		
	Pre-test - post-test difference			-.820	.417
Total score for team-Perception	Pre-test	60.883±5.137	49.00-73.00		
	Post – test	65.860±6.548	54.00-79.00		
	Pre-test - post-test difference			-3.974	.000

Table 3: The difference between the pre-test and post-test students' Self-Perception Leadership mean scores (n=43)

Items	Mean± SD.		Min - Max	t- test	p-value
Teamwork	Pre-test	13.837±3.651	6.00-22.00		
	Post – test	16.720±2.612	10.00-21.00		
	Pre-test - post-test difference			-4.212	.000
Self-Understanding	Pre-test	14.023±2.832	6.00-20.00		
	Post – test	15.953±3.039	9.00-21.00		
	Pre-test - post-test difference		-2.955		.005
Communication	Pre-test	11.279±6.511	5.00-45.00		
	Post – test	13.441±2.500	8.00-19.00		
	Pre-test - post-test difference			-1.965	.056
Decision Making	Pre-test	7.976±2.511	4.00-15.00		
	Post – test	9.976±2.209	6.00-15.00		

	Pre-test - post-test difference			-4.569	.000
Leadership	Pre-test	17.139±3.181	11.00-24.00		
	Post – test	21.302±4.969	*10.00-42.00*		
	Pre-test - post-test difference			-4.866	.000
Total score for Self-Perception Leadership	Pre-test	64.255±9.219	48.00-98.00		
	Post – test	77.395±5.888	65.00-93.00		
	Pre-test - post-test difference			-7.780	.000

Table 4: Number and percentage of students' agreements regarding their attitude of cooperative learning (n=43)

Items	Students' Agreement	
	No.	%
I enjoy cooperative learning activities	26	60.5
I learn better in a team setting.	28	65.1
I think cooperative learning activities are an effective approach to learning.	27	62.8
I do not like to work in teams.	15	34.9
Cooperative learning activities are fun.	29	67.4
Cooperative learning activities are a waste of time.	19	44.2
I think cooperative learning helped me improve my grade.	29	67.4
I have a positive attitude towards team based learning activities.	26	60.5
I have had a good experience with cooperative learning	27	62.8
In cooperative, exchanged resources & information within group	27	62.8

The other group members did their share of the work	26	60.5
Motivated you to learn more about the clinical problem	26	60.5
This type of learning increased understanding of the course content	26	60.5
We communicated effectively while completing our group work	30	69.8
This type of learning helped you in learning class content	31	72.1

6. Discussion

Cooperative learning or Team-Based Learning creates (TBL) conditions in which students will work together cooperatively to solve clinical problems and apply their learning to real world practice situations [22] . Traditional lecture-based teaching methodologies passively transfer information from educator to student, and do not require active engagement from the student to reflect on the concepts being 'delivered', hence limiting teachers in developing their students' critical thinking skills [23] . Cooperative learning frequently used in healthcare education. In the present study use cooperative learning strategy in administration course to improve students' leadership and teamwork skills.

A major finding of the present study revealed there was a statistical significant difference between the pretest and post-test mean scores of students' deep learning approach, team perception of learning and self-perception of leadership of student. This is agreed with Ruiz-Gallardo et al. [24] who concluded a positive influence on the students' self-perception of their overall leadership skills and teamwork who were learning by cooperative learning strategy. This is the same view of Copp [25] who used of cooperative learning as a successful tool in a leadership/management course to teach students about the provisions of one state's nurse practice act. Also Keyes & Burns [26] concluded that group assignments improved undergraduate student learning while developing essential teamwork, communication, and leadership skills.

Approaches to learning describe what students do when they go through learning and why they do it. The basic distinction is between a deep approach to learning, where students are aiming towards understanding, and a surface approach to learning, where they are aiming to reproduce material in a test or exam rather than actually understand it. A deep approach to learning is considered as an appropriate approach as students learn for understanding, derive enjoyment from the learning task and apply the acquired knowledge to the real world [27] . On the other hand, Warren [28] mentioned that surface approach to learning is an inappropriate one as students rely on rote learning and memorization, avoid personal understanding and are unreflective about their learning experience.

The results of the current study provide additional support that cooperative learning promotes a deep approach to learning and proved the first research hypothesis which stated that, cooperative learning experience will foster deep learning approach bachelor nursing students.

This is agreed with Currey et al. [22] who concluded team based learning offers real potential for deep learning and provides graduates with capacities for higher level critical thinking, problem solving, and a valuing of team-based solutions in the workforce. However, Tiwari et al. [29] found that, no significant difference was observed between the pretest and post-test mean scores for the surface approach to learning. This was agreement with the findings of the current study which indicated no significant difference was observed between the pre-test and post-test mean scores for the surface approach to learning.

Cooperative learning (CL) makes students working in teams on an assignment or project under conditions in which certain criteria are satisfied, including team members be held individually accountable for the complete content of the assignment or projectLaguador, [6]. Findings of the present study revealed that there was statistical significant difference between the pretest and post-test mean scores of students' team work perception.This may be dueto cooperative learning engaging students in participating actively in their own and others' learning in a way particularly reflective of ideal cooperative experiential learning encountered in the clinical environment.

In addition to cooperative learning offers a pleasant learning situation for all students, all students have equal opportunity, competition is amended as friendship, the spirit of cooperation and participation is reinforced, and all students are entitled to be thoughtful and creative. This is the same line of Currey et al. [22] who mentioned Team Based-Learning develops team behaviors as students practice interpersonal communication, collaborative decision making, negotiation, giving and receiving feedback, peer review and demonstrating respect for others. Perhaps partly because of the incentives for learning teams to operate collaboratively, inclusively and equitably. Therefore Laguador [6] discussed the option of utilizing the cooperative learning approach as teaching and learning strategy in the classroom to encourage learners' active participation.

Cooperative learning (CL) is an as a learning strategy based on working in small and usually heterogeneous groups, in which students work together to expand or hone their own skills and those of other group members. It provides better opportunity for learners to grow and achieve the course objectives as well as the student-outcomes [6]. Furthermore, Curreyet al. [22] revealed Team-Based Learning is an innovative learner-centered educational strategy designed to develop high performance learning teams. It can dramatically improve the quality of student learning by engaging students in participating actively in their own and others' learning in a way particularly reflective of ideal cooperative experiential learning encountered in the clinical environment.

Effective communication among healthcare professionals is critically important for patient safety and quality care, especially for nurses who have the most direct care time with patients (Gausvik et al. [30]. Therefore, it is crucial that nursing students have opportunities to learn and practice communication strategies to effectively communicate with patients and healthcare members [31]. Cooperative learning encourages the development of such important skills such as critical thinking, creative problem solving and synthesis of knowledge. Cooperative learning, not only enhances academic achievement, but also improves inter

group relationships. Students learn how to depend on one another and help each other [17].

Findings of the present study revealed that there was a significant difference between the pretest and post-test mean scores of students' communication perception. This may be contributed to students have to speak clearly in order to understand, learn and be able to follow educators directions. This mean that students who got involved in this cooperative learning approach felt that they had improved their communication skills. Then, results of the present study are consistent with those of Baghcheghi et al. [9] who found better communication skills in nurses after applying cooperative learning. This is supported by Renganathan [17] who applied cooperative learning approach to nursing theoretical content in an effort to increase student's knowledge, decrease attrition rates in a first level medical surgical course, and concluded enhance students' communication skills.

In addition to study results of Norris Armstrong [32] who indicated students are more interesting, enjoyable with the cooperative learning method and feel they are supported, so potentially leading to improved learning outcomes. However, Gao et al. [33] mentioned in the nursing curriculum, student-centered lessons and workshops that target the improvement of nursing students' communication skills among inter-professional roles are extremely rare. Therefore, Wang et al. [31] using the Situation–Background–Assessment–Recommendation (SBAR) as a communication tool to teach communication skills and suggested SBAR communication tool in combination with role-play and video in improving the inter-professional communication among nursing students.

Again, findings of the present study revealed that there was statistical significant difference between the pretest and post-test mean scores of students' decision making perception. This is the same line of Baumberger-Henry [34] who concluded students involved in cooperative learning have to be constantly constructing ideas, debating them and making decisions. It is remarkable not only cooperative learning experience had supporting students' decisions over their previous knowledge but also leads them to actively new information to their own previous knowledge creating meaningful learning. This is supported by Yang & Liu's [35] results who found the most talented students' expertise decision making, feel that this skill is higher after the CL experience. It also coincides with Baghcheghi et al. [9] study's who found better perception of decision making after CL. In similar vein, Ruiz-Gallardo et al [24] who found greater capacity to follow up problems and decision making after cooperative learning among nursing students.

Emphasis on leadership in nursing has evolved in the last few decades as a result of changes and development in the healthcare system, the complexity of diseases, and advancement of technology. Nurses are being increasingly asked to develop leadership skills in their practice and to be actively involved in continuous change processes in the workplaceStanley [36]. In addition, leadership influences the quality of care, improves patient outcomes Démeh & Rosengren [37]. Nursing students need to be developing leadership skills prior to entering the workplace to ensure they are able to meet the challenges associated with organizations and the cultures present in nursing, along with having highly tuned communication skills and leadership attributes that contribute to best patient care and outcomes. Middleton [38].

Findings of the present study revealed that there was statistical significant difference between the pretest and post-test mean scores of students' self-perception leadership. This is agreed with and enhanced leadership skills Currey et al. [22] who found team based-learning enhanced leadership skills among nursing students. And Middleton, [38] . Concluded use of Active Learning in an undergraduate setting enabled the development and implementation of a leadership subject for nursing students preparing for professional practice. It seems apparent that Active Learning is an effective means of learning about leadership in undergraduate students who are developing towards a career as a health professional. However, the current results are in the line of Graham and Partlow [39] who applied cooperative learning in nurse training to improve leadership and training students in many skills required by any future professional that gets graduated.

In addition to Dewing, [40] emphasize on the necessary to design the learning approach and methods that would best enable leadership to be seen as valuable for students moving into practice as RN's. Approaches to learning are one of the important variables of the learning process. This promotes two widely accepted learning styles: a surface approach and a deep approach [41] . Thus, learner-centred approach that makes the learning directly relevant to practice. Cooperative learning procedures are designed to engage students actively in the learning process through inquiry and discussion with their peers in small groups. Seemingly, lecturers value the development of theoretical knowledge over profession-specific skills [42] .

However, May et al. [15] mentioned overall cooperative learning effect on students' learning approaches and outcomes. Although a number of studies have demonstrated a link between learning approaches and academic performance. As well as Currey et al. [22] describe students' experiences of learning via team based learning and suggest it offers a powerful educational strategy for increasing both student engagement in the classroom and student learning outcomes. It facilitates critical reasoning, effective learning, and engagement with self as learner, with colleagues and the clinical team. In addition, the construction of the module based on cooperative learning is also seen as being able to create an exciting atmosphere and conducive to learning among students as well as to improve the students' academic achievement [43] .

7. Conclusion & Recommendations

Cooperative learning is an approach to the aim of student-centered learning. The findings of the present study provides evidence that cooperative learning is an effective method for improved and increased communication skills of nursing students especially in interactive skills, team work, and their scores leadership perception. Overall, the results of the present study there was statistical significant difference between the pretest and post-test mean scores of students' deep learning approach, team perception of learning and self-perception of leadership of student. In addition, students who used the cooperative learning strategy also showed a deeper understanding of the management concepts learned. This mean that cooperative learning also creates future leaders that would cultivate their leadership skills through enhance their ability to develop a more effective group work.

In the light of the findings, the following recommendations are suggested:

1.   Nursing programs should include the teaching strategies that promote students' deep learning approach, team work, communication, and leadership abilities.

2.   Nursing program need to implement many innovative teaching styles like cooperative teaching and make the learning student centered.

3.   Nursing curricula should also include cooperative learning part

4.   Students at any level of education should be provided with an active learning environment

5.   Encouraging nursing students to adopt more deeper approach to learning through using more active and cooperative learning, is very important in their professional development and lifelong learning.

6.   The study need to be done in many nursing institutes for a more conclusive result and to evaluate learning outcomes of the students gained from the cooperative learning.

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