

Effect of Cooperative Learning Program on Intern-Nurses' Decision Making Skills

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Abstract

Cooperative learning is a successful learner focused instructional approach where small groups of intern nurses work together to take full advantage of their individual and group learning that reflects on enhancing academic achievement, encouraging individual accountability, practicing social skills and improving decision making skills. **The aim** of this study was to determine the effect of cooperative learning program on intern nurses' decision making skills. **Research design:** A quasi experimental design was utilized in this study. **Setting:** This study was conducted at Benha University Hospital in the intern-nurses' clinical training areas. **The sample:** A systematic random sample was used in this study; the total sample included 100 intern nurses. **Tools: four tools** were used **I):** Cooperative learning knowledge questionnaire, **II):** Attitude toward cooperative learning scale, **III):** Cooperative learning practice observational checklist and **IV):** Decision making skills in nursing scale. **Results:** (87.3%) and (80.0%) of intern nurses had satisfactory knowledge level during immediately post program phase and follow up phase. (92.7%) and (80%) had highly positive attitude during immediately post program phase and follow up phase, respectively, (90.9%) of them had competent practice level at immediate post program phase and (72.7%) of intern nurses had high level of decision making skills at post program. There was a highly positive statistical significant correlation between intern nurses' total cooperative learning knowledge, attitude and practice scores and their total decision making skills score at immediately post program. **Conclusion:** educational program was effective in improving intern nurses knowledge, attitude and practice about cooperative learning and also improved decision making skills levels. **Recommendations:** Apply cooperative learning with more participants highly recommended to achieve generalizable results and generate more evidence on the effects of cooperative learning.

Key words: Cooperative learning, Decision making skills

Introduction:

Many of intern nurses still lack many skills like communication, creativity, analytical and critical thinking, problem-solving and decision-making skills. Therefore, there is a sturdy requirement of higher education institutions to focus on training future graduates to be more adaptable to the community needs, as well as to match between graduates' skills and the prerequisite skills for their future career. This can be achieved by applying the knowledge at

clinical environments through group as cooperative learning (*Kader et al., 2019*).

Over the past decade, cooperative learning (CL) has emerged as a leading new approach to classroom instruction. The main concern of education specialists in the modern world revolves around the best teaching methods to prepare the students to face the myriad of challenging issues. This entailed changing to learner-centered methods that

could meet the students' needs (*Ning and Hornby, ۲۰۱۹*).

In CL Intern nurses are expected to help each other, discuss and argue with each other, assess each other's current knowledge and fill in gaps in each other understands . Emphasis is placed on intern nurse involvement in active learning and the development of social skills. The cooperative learning theory aroused the interest of the experts in the field of education in terms of designing a curriculum which enables the intern nurses to learn through cooperative effort, problem solving, and decision making (*Lau et al., ۲۰۲۰*).

The instructor in CL takes an active role in helping students acquire, develop and refine the communication skills necessary for meaningful social relationships and interactions. These instructors are responsible for the selection of each group to be sure that there is a variety of experience among intern nurses, follow up the group activity to achieve their specific task on time and assess group (*Goodwin, ۲۰۱۹*).

Intern nurses working in small cooperative groups can develop the type of intellectual exchange that fosters creative thinking and productive decision making skills. Moreover CL increases the sense of intimacy, self -confidence. When the group is encouraged to gain success and when each member of the group takes responsibility, CL fosters the progress of students (*Reza, ۲۰۲۰*).

Decision making (DM) is one of the most necessary parts of professional nursing practice. It is a thought process that nurses undertake every day when making judgments on providing care to patients and managing issues. DM as generic competence can help to enhance the quality of nursing care and

influence patients' outcomes (*Banning, ۲۰۱۹*).

Significance of the study:

Most of intern nurses have a lack of functional experience, nursing skills especially decision making skills from the study to the new job in hospital and combined with patients with complex and serious diseases and a variety of complex operating equipment, causing greater psychological pressure. So the standardized pre-service training which based on cooperative learning is important to maximize the learning effect, develop decision making skills and ensure the quality and safety of nursing (*Wong et al., ۲۰۱۷*).

Effective decision making has long been recognized as a vital component of high quality nursing care process starting from assessment until evaluation of care. It is necessary for intern-nurses to be effective decision makers and need to be proficient in decision making skills as they are in clinical skills. Application of cooperative learning can help intern nurses to achieve this which is one of the learning methods that have social as well as academic benefits. It promotes intern nurses' responsibility for their own learning, improves intern nurses' interpersonal skills and higher level thinking ability and develops decision making skills. So this study will be conducted to determine effect of cooperative learning program on intern-nurses' decision making skills.

Aim of the study:

This study aimed to determine the effect of cooperative learning program on intern nurses' decision making skills.

Research hypothesis

There will be an improvement in intern-nurses' knowledge, attitude and practice

regarding cooperative learning after implementing the program and it will have a positive effect on their decision making skills.

Subject and method:

Research design:

A quasi – experimental design was used in carrying out this study.

Setting:-

This study was conducted in the intern-nurses' clinical training areas according to the policy of internship.

Sampling:

The subjects included in the present study consisted of (80) intern nurses: A systematic random sample was used through choosing every 8th of intern nurses from (246) who are enrolled in the internship year 2019-2020 at Benha University Hospital and available at the time of study.

Tools for Data Collection: Four tools were used to collect the data:

Tool (I): Cooperative Learning Knowledge Questionnaire: It was developed by the researcher based on review of related literature (*Jake, 2014; Ramos, 2015; Robyn, 2016*). It was included two parts:

Part (1): Personal data about study subjects such as age, gender, marital status and training area (department).

Part (2): It included different questions to assess intern nurses' knowledge about cooperative learning before, immediately after and follow up implemented of educational program. It consisted of 30 multiple choice questions regard to knowledge about cooperative learning.

Scoring system:

The questions were scored as "1" for correct, and "zero" for incorrect so the total scores (30). Total knowledge score was calculated as follows;

Satisfactory: $\geq 70\%$ of total knowledge score.

Unsatisfactory: $< 70\%$ of total knowledge scores

Tool (II): Attitude toward Cooperative Learning Scale: It was developed by (*Xuan, 2015*) to assess intern-nurses' attitude toward cooperative learning. It consisted of 22 items divided into three dimensions

Scoring system:

Subjects' responses were scored on a three point Likert Scale ranged from (3) agree (1) neutral (0) disagree. For each item, the scores were summed-up and giving a mean score for the item. These scores were converted into a percent score. Total attitude score was calculated as follows;

Positive attitude: $\geq 70\%$ of total attitude score

Negative attitude : $< 70\%$ of total attitude scores

Tool (III): Cooperative Learning Practice Observational Checklist: It was developed by (*Belilew, 2015*) to assess intern-nurses' practice regarding cooperative learning. It included 22 items are grouped under three categories

Scoring system:

Each item was assigned a score of (one) degree for "done" and (zero) for "not done". The scores were calculated by summing up the grades of items of checklist, the scores were converted into percent score. The level of practice was considered as follows;

Competent practice: if the percent score $\geq 70\%$ of total practice scores.

Incompetent practice: if the percent score $< 70\%$ of total practice scores.

Tool (IV): Decision Making Skills in Nursing Scale:

It was developed (*French et al., 2016*) to assess intern-nurses' decision making skills. It included 22 items are grouped under six dimensions.

Scoring system:

Subjects' responses were scored on a three point Likert Scale ranged from (✓) always (✓) sometimes (✓) never. For each item, the scores were summed-up and giving a mean score for the item. These scores were converted into a percent score. The level of decision making skills was considered as follows;

High level: $\geq 70\%$ of total scores.

Moderate level: 60 to $< 70\%$ of total scores.

Low level: $< 60\%$ of total scores.

Content validity of the tools:

These four tools were tested for validity (Face, Content) through distribution of the tool to a jury of five Experts on field of Nursing Administration and Education consisting of five Professors; one Professor of Nursing Administration from Tanta University and other three Professors of Nursing Administration from Zagazig University and finally one Professor of Community Health Nursing from Benha University. Modifications were done in the light of their valuable comments such as modify some words to give the right meaning for the phrase which were not clear.

Reliability of the tools:

Reliability of the tools was applied by using Cronbach's Alpha Coefficient test. Cooperative learning knowledge questionnaire was $\alpha = 0.904$, attitude toward cooperative learning scale was $\alpha = 0.960$, cooperative learning practice observational checklist was $\alpha = 0.949$ and decision making skills in nursing scale was $\alpha = 0.970$.

Ethical considerations:

Approval of the faculty ethics committee for scientific research was done. At the interview with intern nurses to collect data, they were informed about the purpose and benefits of the study and their participation is voluntary and they have the right to refuse to participate in the study without giving any reason. In addition, confidentiality and

anonymity of the subjects were assured through coding of all data.

Pilot study:

The pilot study was done on 10% of the subject: 10 intern nurses and were included in the main study subject because there no modification is required. In addition to estimate the time required to fill the appendices that approximately ranged from 20 - 40 minutes.

Field work:

The following phases were adopted to achieve the aim of the current study: assessment, planning, implementation and evaluation phases. These phases were carried out from the beginning of February, 2020 to the end of July, 2020.

A- Assessment phase:

The process of data collection took one month and was carried out in February, 2020 to assess intern nurses' knowledge, attitude and practice regarding cooperative learning and assess intern nurses' decision making skills before implementation of the educational program. At the beginning, the researcher welcomed the intern-nurses, gave a brief description of the study for all intern-nurses. Then, the researcher collected data by using the different tools of data collection in the available hospital classroom and during their training hours. It was three days per week. The time required to fill four tools were around; 20-40 minutes.

B- Planning phase:

This phase took one month March, 2020. Based on baseline data obtained from pre-test assessment and relevant review of literature, the program was developed by the researcher. An education program was developed based on determined needs and relevant review of literature. Program construction in a form of printed English form and included different topics to enhance cooperative learning knowledge, attitude and practice. Cooperative

learning handout for intern nurses (Appendix VI). Also, the researcher prepared power point presentation of the topics.

Different instructional strategies, method of teaching, media and method of evaluation were selected to suit the learner's needs and achieve the objectives and contents of the program. It was aimed to provide nursing with much experience as possible. The teaching sessions were achieved by using available resources, relevant contents and instructional strategies for each session. Different methods of teaching were used such as lecture, group discussion, and brain storming. Instructional media included, handout prepared by the researcher and distributed to all intern nurses in the first day of the education program.

C-Implementation phase:

This phase was initiated in April, 2020. The researcher visited each previous mentioned setting in the two shifts (morning and afternoon), three days/week. Then, the researcher divided the subjects to three groups, each group composed of 18-19 intern-nurses. The educational program involved (5) sessions and each session was taken 3 hours. The teaching sessions were (14) hours distributed as (5) sessions. These sessions were repeated with the same to each group of intern-nurses achieved by using available resources, relevant contents, and instructional strategies for each session. At the beginning of each session an orientation to the training and its aims took place. Feedback was given at the beginning of each session about the previous one and at the end of each session about the current session.

D- Evaluation Phase:

This phase lasted for three months from the beginning of May, 2020 to end of July, 2020. During this phase, the effect of the education program was evaluated immediately post program implemented for all subjects using the same tools which were used before the program and follow up after three months of

program implementation, all the study tools were applied for intern nurses to test the follow up gain in the intern nurses knowledge, attitude, practice regarding cooperative learning and change in level of intern nurses' decision making skills.

Statistical analysis:

Data were verified prior to computerized entry. The Statistical Package for Social Sciences (SPSS version 20.0) was used for that purpose, followed by data analysis and tabulation. Descriptive statistics were applied (e.g., mean, standard deviation, frequency and percentages, Chi-square (χ^2)). Test of significance (paired (t) test, Pearson correlation coefficients were used for investigation of the relationships among scores. The P- value is the probability of error that indicate significance of results through observed difference. A significant level value was considered when $p < 0.05$. And a highly significant level value was considered when $p < 0.01$.

Result:

Table (1): Shows that; more than half (58.1%) of intern nurses had age 22 years with Mean \pm SD (22.47 \pm 0.60). As far as their gender, the majority (87.3%) of them were female. In relation to their marital status more than three quarter (78.2%) of them were not married.

Figure (1): This figure illustrates that; majority of intern nurses (87.3%) and (80.0%) had satisfactory knowledge level during immediately post program phase and follow up phase (after three months), respectively compared with preprogram phase.

Figure (2): This figure reveals that; majority of intern nurses (92.7%) and (80%) had highly positive attitude during immediately post program phase and follow up phase (after three months), respectively.

Figure (٣): This figure illustrates that; (٩٠.٩%) of them had competent practice level and (٨٧.٣%) of them had competent practice level at follow up after three months of the educational program.

Figure (٤): This figure illustrates that; less than three quarter (٧٢.٧%) of intern nurses had high level of decision making skills at post program while it was decreased to more than half (٥٨.٢%) in the follow up phases but still more than preprogram phase.

Table (٢): Shows that; there was a highly positive statistical significant correlation between intern nurses' total cooperative learning knowledge, attitude and practice scores and their total decision making skills score at immediately post program and there was a positive statistical significant correlation in follow up program phase compared with preprogram phase.

Table (١): Frequency distribution of intern nurses regarding their personal characteristics (n=٥٥)

Personal characteristics	No	%
Age		
٢٢- years	٣٢	٥٨.١
٢٣- years	٢٠	٣٦.٤
≥٢٤years	٣	٥.٥
Mean ±SD	٢٢.٤٧±٠.٦٠	
Gender		
Male	٧	١٢.٧
Female	٤٨	٨٧.٣
Marital status		
Not married	٤٣	٧٨.٢
Married	١٢	٢١.٨

Figure (١): Total knowledge percentage scores of the studied intern nurses about cooperative learning thorough program phases (n=٥٥)

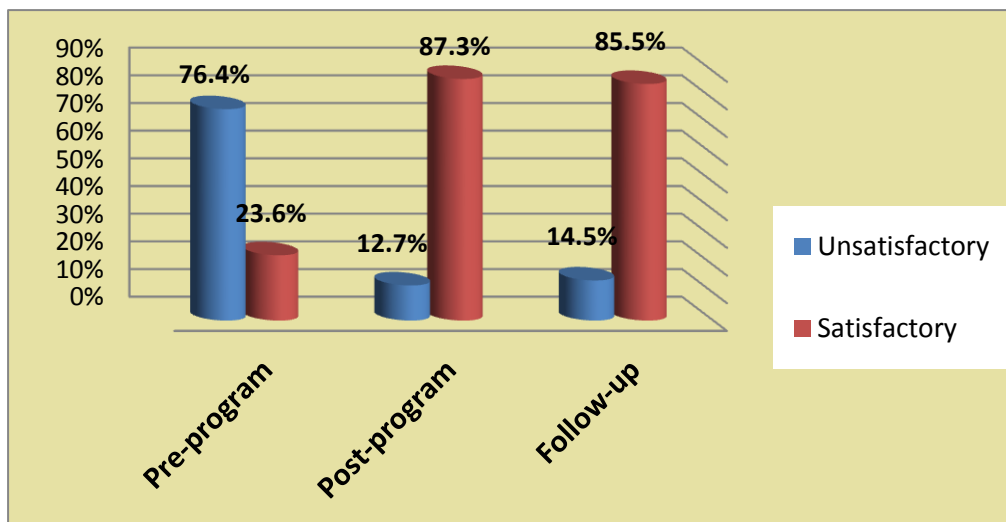


Figure (٧): Distribution of studied intern nurses according to their attitude levels toward cooperative learning through educational program phases (n=٥٥)

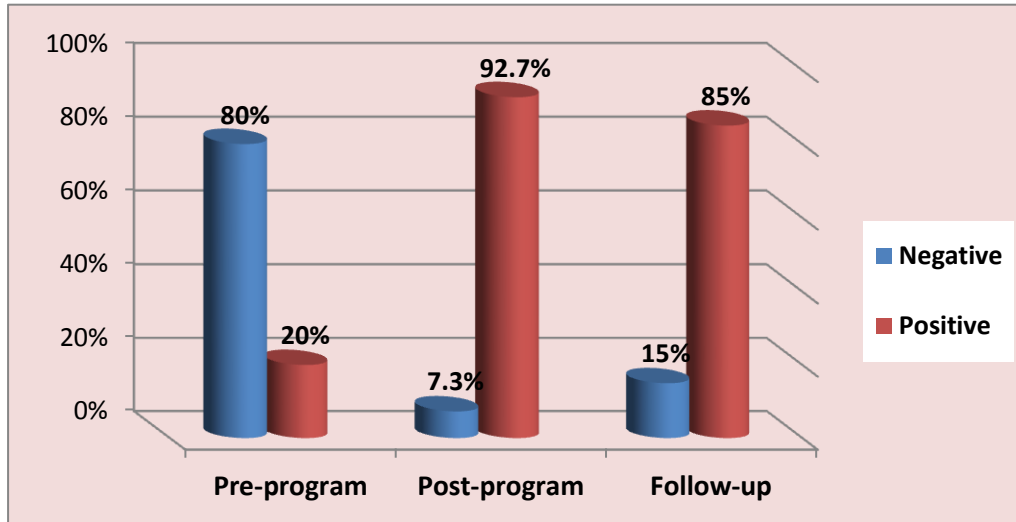


Figure (٨): Total practice levels of the studied intern nurses through the program phases (n=٥٥)

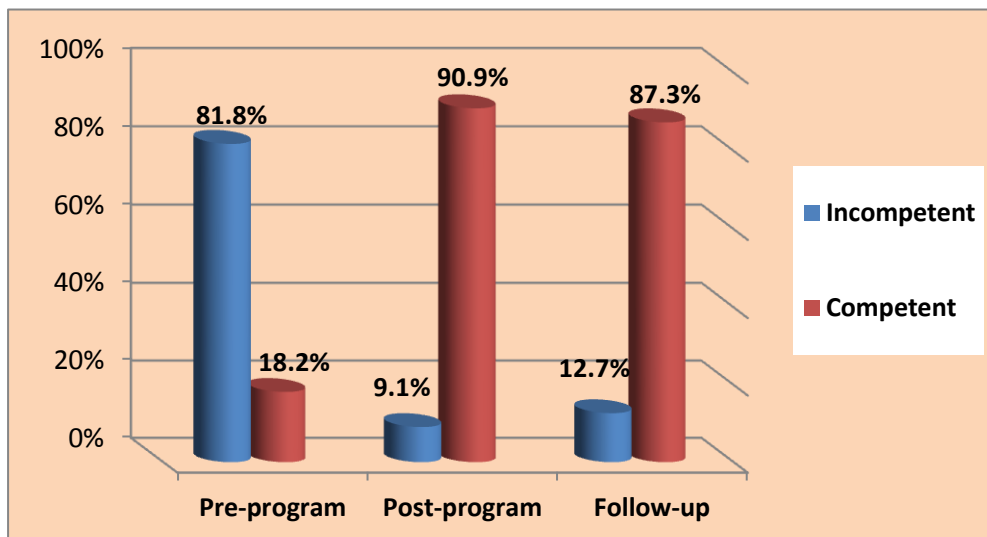


Figure (٤): Distribution of studied intern nurses according to their decision making skills levels through educational program phases (n=٥٥).

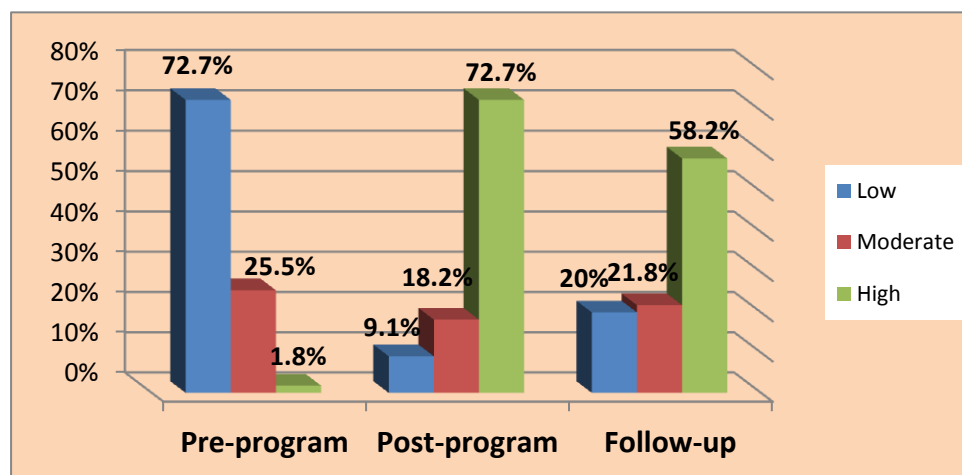


Table (٢): Correlation between studied intern nurses' total cooperative learning knowledge score and their total decision making skills score thorough the program phases

Items	Total decision making skills score					
	Pre program		Post program		Follow up	
	r	p-value	r	p-value	r	p-value
Total knowledge score	٠.٥٩	٠.٦١	٠.٤٢	٠.٠٠١**	٠.٣٦	٠.٠٤٢*
Total attitude score	٠.٢٨	٠.١٩	٠.٧٦	٠.٠٠٠**	٠.٤١	٠.٠١٢*
Total practice score	٠.٢١	٠.٠٣٧	٠.٦٦	٠.٠٠٠**	٠.٤٠	٠.٠٤*

Discussion:

Cooperative learning considered as learning mediated by learners rather than the instructor. In CL, intern nurses work in groups to teach themselves the contents being covered. CL also is a method that instructors can use to inject variety into their subjects and handled effectively; it provides a setting for intern nurses to learn important social, intellectual, communication and decision making skills (Karasu and Unlu, ٢٠١٩).

This study aimed to determine the effect of cooperative learning program on intern nurses' decision making skills through;

Assessing intern nurses' knowledge regarding cooperative learning thorough program, assessing intern-nurses' attitude regarding cooperative learning thorough program, assessing intern-nurses' practice regarding cooperative learning thorough program, design and implement cooperative learning program for intern- nurses and evaluating the effect of cooperative learning program on intern-nurses' decision making skills.

The finding of present study showed that there was a highly statistically significant improvement in level of knowledge of the

studied intern nurses throughout post and follow-up phases (after three months) of the program compared with the preprogram phase; majority of intern nurses had satisfactory knowledge level during immediately post program phase and follow up phase (after three months) compared with preprogram phase. While minority of them had unsatisfactory knowledge level during immediately post program and follow up phases of the study compared with the preprogram phase.

From the researcher point of view unsatisfactory level of intern nurses' knowledge related to cooperative learning was new matter and one of the new teaching method which they didn't have adequate knowledge and training for it than before. So this improvement and satisfactory level of knowledge acquired by intern nurses throughout post and follow-up phases of the program was related to utilizing of cooperative learning method which was more centered on learner and facilitated the interactions, collaboration and good communication among learners in small groups that reflected on gaining more knowledge in the learning process. In addition, the several cycles of repetition had created a truly dynamic interactive educational sessions.

This finding was consistent with **Zimmerman**, (۲۰۱۷), who conducted study about "Cooperative learning and academic achievement: An overview" and stated that cooperative learning help students in retention and gaining deeper knowledge. Moreover, **Schunk**, (۲۰۱۷) who conducted study about "Cooperative learning and attributions in academic settings", and reported that there, was significant improvement in knowledge level of learners.

On the other hand, this result was contradict with **Bagozzi**, (۲۰۱۷) who conducted study about "A comparison between cooperative learning and traditional lecture as teaching methods in the classroom" and reported that there was none significant effect of cooperative learning on enhancing the knowledge of students compared with the lecture which had a significant effect.

Concerning intern nurses' attitude regarding cooperative learning thorough program phases the finding of present study showed that there was a highly statistically significant improvement in level of attitude of the studied intern nurses about cooperative learning throughout post and follow up phases; Majority of intern nurses had highly positive attitude during immediately post program phase and follow up phase. While minority of them had negative attitude during immediately post program and follow up phases of the study compared with the preprogram phase.

From researcher point of view, improvement in intern nurses' attitude might be due to working in small groups helped them to share ideas, express opinions, make every one accountable and responsible to understand the learning materials and learn others. All of this was reflected on them to be interested in cooperative learning and need to know more information about it.

The result of present study was supported with **Song**, (۲۰۱۸) who conducted study about "Application of cooperative learning in the college task-based teaching" and revealed that more than half of study subjects think cooperative learning is a good approach. Also, **Nelson et al.**, (۲۰۱۷) who conducted study about "Cooperative learning from two different perspectives" and elaborated that most of the participants prefer working groups to working individually.

On the other hand, the result of the present study disagreement with **Piao**, (۲۰۱۸) who conducted a study about "Chinese students' perceptions of cooperative and non-cooperative activities in EFL classroom" and stated that more than two thirds of students preferred individual study than group study.

Concerning intern nurses' practice regarding cooperative learning thorough program phases the finding of present study showed that there was a highly statistically significant improvement in level of intern nurses practice throughout post and follow up phases respectively; at preprogram phase the majority of studied intern nurses had incompetent practice level meanwhile at immediate post program phase and at follow up after three months the majority of them had competent practice level.

From the researcher point of view, this could be due to intern nurses acquired the essential knowledge of cooperative learning in the educational program that helped them to implement cooperative learning effectively through pre implementation; they were setting educational goals, forming groups and assigning roles and responsibilities to every member equally. During implementation; they were listening to and questioning one another and using the time effectively to complete the assignment.

Moreover, this improvement could be due to the learning environment condition which considered the main element in the success of cooperative learning practice in which there were enough seats, adequate light and good ventilation of the setting and numbers of group members were manageable.

The result of present study was consistent with **Almulla**, (۲۰۱۶) who conducted study about "Students' perceptions of the academic

and social Benefits of working with cooperative learning" and revealed that after using cooperative learning, the students started to acquire the practice skills and attitudes that were required for implementing cooperative learning.

The result of the present study was disagreement with **Najmonnisa**, (۲۰۱۸) who conducted a study about " A readiness study about cooperative teaching learning practices at faculty level in Karachi: Issues and challenges " and found that most of the instructor and student respondents in the actual classroom observation and interview they failed to practices cooperative learning activities and rather they tend to practices teacher-centered teaching-learning.

In relation to intern nurses' decision making skills levels thorough program phases the finding of present study showed that there was a highly statistically significant improvement in level in decision making skills of intern nurses throughout post and follow up phases; more than two thirds of intern nurses had high level of decision making skills at post program while it was decreased to more than half in the follow up phases but still more than preprogram phase.

From the researcher point of view this could be due to that intern nurses were ready to be personally responsible for their actions during practice and therefore they were able to justify their decisions and balance a number of elements before they make a decision in which the patient's best interest is their main priority.

This finding was consistent with **Krishnamurthy et al.**, (۲۰۱۹) who conducted study about " Components of critical decision making and ABSITE assessment: Toward a more comprehensive evaluation" and stated that decision making had significant

importance to guide the nurse in assessing, assimilating, evaluating, and/or discarding components of information to make good judgments in clinical and nonclinical situations.

This result aligns with, this finding was agreed with **Chisholm-Ford et al.**, (۲۰۱۷) who conducted study about "Decision making skills of baccalaureate nursing students in Jamaica" and reported that decision making skills were relatively high among the study participants. Also, Farokhzadian, (۲۰۲۰) who conducted study about "The importance of decision making from clinical nurses' perspective in hospitals of a medical university in Iran" and showed that decision making was significant because it influences the care provided for patients.

On the other hand, this result was contradict with **Pourama**, (۲۰۱۸) who conducted study about " Decision making from nursing students' perspective in Kerman province: A descriptive study " and reported that the majority of students were not aware of the importance of decision making in nursing so they had the low scores.

The result of present study revealed that there was a highly positive statistical significant correlation between intern nurses' total cooperative learning knowledge, attitude and practice scores and their total decision making skills scores at immediately post program and there was a positive statistical significant correlation in follow up program phase compared with preprogram phase.

From the researcher point of view this might be due to that this correlation could occur when utilizing creative and attractive teaching approaches and use of educational strategies like cooperative learning that can facilitate the interactions, collaboration and

discussion in the learning process resulted in improvement in knowledge, attitude and practice and this might have effect on increased decision making skills for the intern nurses.

The findings were supported by **Sung and Choi**, (۲۰۱۷) who conducted study about "Effects of cooperative learning knowledge on the creativity and decision making of organizational groups" and revealed that groups cooperative learning knowledge had a greater positive effect on their decision making skills. If there was increasing cooperative learning knowledge, this would stimulate an increase of groups' decision making skills.

Also this result was similar to **Usman et al.**, (۲۰۱۶) who conducted study about "The effect of cooperative learning on decision making abilities in the classroom" and founded a link between cooperative learning and decision making abilities thus; students would making decision better when highly trained in these new teaching methods like cooperative learning.

Additionally this finding was supported with **Ya-Lie Ku et al.**, (۲۰۱۷) who conducted study about "Constructing and evaluating a cooperative learning nursing course for cultivating decision making skills in students in Taiwan" and reported that students' cooperative learning knowledge and practice had a high significant positive correlation with students' decision making skills which indicates that the increase in cooperative learning will lead to improve of decision making skills.

The result was disagreed with **Singh**, (۲۰۱۹) who conducted study about "A research paper on the medicine students attitude towards cooperative learning and its learning outcomes" and concluded that there

was no that no impact between the applications of cooperative learning among students and their decision making as one of learning outcomes.

Conclusion

The present study concluded that there was a highly statistically significant improvement in knowledge, attitude and practice levels of the intern nurses about cooperative learning and there was a highly statistically significant improvement in intern nurses' decision making skills level throughout post and follow up program than preprogram phase. Also, there was a highly positive statistical significant correlation between knowledge, attitude and practice score and decision making skills score at immediately post program phase and there was a positive statistically significant correlation in follow up program phase compared with preprogram phase which there was no statistical significant correlation.

Recommendations:

In the light of the findings obtained from the present study following recommendations are proposed:

References

Kader, A., Mohamed, E. & Abood, S. (2019): Perception of nurse interns about clinical assignment preparation requirements. *Journal of American Science*, 14(12), Pp. 777-782.

Ning, H. & Hornby, G. (2019): The impact of cooperative learning on tertiary EFL learners' motivation, *Educational Review*, 76(9), Pp. 108-124.

Lau, P., Kwong, T., Chong, K. & Wong, E. (2020): Developing students' teamwork skills in a cooperative learning project. *International Journal for Lesson and Learning Studies*, 3(1), Pp. 8-19.

For faculty administrators:

- It may be beneficial for the faculty to accept different popular learning strategies such as CL, and give more attention to these instructional methods.
- It is important for the faculty administrators to provide some training sessions and workshops to instructors in CL instructional strategies and usage.
- Nursing curriculum in the faculty should also include CL part.
- Encourage intern nurses participation in decision making by keeping them informed from the beginning about any changes in work and new decisions and by seeking their views, responding to suggestions.

For Further Researches:

- Apply CL with more participants highly recommended to achieve generalizable results and generate more evidence on the effects of cooperative learning.
- Determining predominant factors in CL approaches to student perceptions.
- Assess the factors that improve or impede decisional involvement among intern nurses.

Goodwin, M. (2019): Cooperative Learning and Social Skills: What skill to teach and how to teach them, *Intervention in School and Clinic*, 30(1), Pp. 29-33.

Reza, K., Abozar, H., Ali, E. & Akbar, H. (2020): The impact of cooperative learning on students' science academic achievement and test anxiety, *Journal of Educational Innovations*, 11(44), Pp. 83-98.

Banning, M. (2019): A review of clinical decision making: Models and current research, *Journal of Clinical Nursing*, 14(1), P. 187.

Wong, A., Wong, F., Chan, L., Chan, N., Ganotice, F. and Ho, J. (2019): The effect

of cooperative learning among nursing students: A quasi-experimental study, *Nurse Education today*, ٥٣(٦), P.١٤.

Jake, M. (٢٠١٤): Cooperative Learning Approach in an outcomes-based Environment, *Multidisciplinary Journals*, ٢ (٢), Pp. ٤٦-٥٢.

Ramos, M. (٢٠١٥): Developing Cooperative Learning Through Tasks in Content and Language Integrated Learning, *Multidisciplinary Journal of Educational Research*, ٥(٢), Pp.١٣٦-١٤٦.

Robyn, M. (٢٠١٦): Cooperative learning: Review of research and practice, *Australian Journal of teacher education*, ٤١(٣), Pp.٣٩-٤٨.

Belilew, M. (٢٠١٥): Practices and Challenges of Implementing Cooperative Learning: Ethiopian High Schools EFL Teachers Perspective, *International Journal of Research*, ٧(١٢), Pp. ٢٤٥٨٤-٢٤٥٩٣.

Xuan, L. (٢٠١٥): Application of Cooperative Learning Approach: Teachers' and Students' Perceptions towards Cooperative Learning, *Fredonia Journal*, ٥(٣), Pp. ٥-٣٥.

French D., West R., ELander J. and Wilding J. (٢٠١٦): Decision-making skills in nursing. *Ergonomics*, ٣٦(٦), Pp. ٦٢٠-٦٣٠.

Karasu, Z. & Unlu, M. (٢٠١٩): The effect of achievement academic of cooperative learning method in education. *Marmara Review*, ١٢, Pp. ١٠٥-١٢٨.

Zimmerman, B. (٢٠١٧): Cooperative learning and academic achievement: An overview, *Educational Psychologist*, ٢٥, Pp.٣-١٧.

Schunk, D. H. (٢٠١٧): Cooperative learning and attributions in academic settings, *Journal of Higher Education*, ٢٦(٩), Pp.٧٥-٩٩.

Bagozzi, R. (٢٠١٧): A comparison between cooperative learning and traditional lecture as teaching methods in the classroom, *Higher Education*, ٣٦, Pp.٤٣٥-٣٥٥.

Song, Y. (٢٠١٨): Application of cooperative learning in the college task-based teaching, *Journal of Exam Week*, ٢٧, Pp.٨٣-٨٤.

Nelson, S., Gallagher, J. & Coleman, M. (٢٠١٨): Cooperative learning from two different perspectives, *Roeper Review*, ١٦, Pp.١١٧-١٢١.

Piao, S. (٢٠١٨): Chinese students' perceptions of cooperative and non-cooperative activities in EFL classroom, *Journal of Social Issues*, ٥٥, Pp.٦٤٧-٦٦٣.

Almulla, M. (٢٠١٦): Students' perceptions of the academic and social Benefits of working with cooperative learning, *Global Journal of Business and Social Science Review*, ٤ (٤), Pp.٨-٢١.

Najmonnisa, N. (٢٠١٨): A readiness study about cooperative teaching learning practices at faculty level in Karachi: Issues and challenges, *Education Review*, ٩(١): ٥٩٥-٦٢١.

Krishnamurthy, S., Satish, U., Foster, T., Dewan, M. & Krummel, T. (٢٠١٩): Components of Critical Decision Making and ABSITE Assessment: Toward a More Comprehensive Evaluation, *Journal of graduate medical education*, ١(٢): ٢٧٣-٢٧٧.

Chisholm-Ford, S., Waite, M. & Shery, N. (٢٠١٨): Decision making skills of baccalaureate nursing students in Jamaica, *Journal of Nursing Education and Practice*. ٢٠١٧; ٧(٣): ٤٧-٥٦.

Pourama, (٢٠١٨): Decision making from nursing students' perspective in Kerman province: A descriptive study, *Medical Ethics and History of Medicine*, ٧(٦):٧٩-٨٨.

Sung, Y., & Choi, N. (٢٠١٧): Effects of cooperative learning knowledge on the creativity and decision making of organizational groups, *Organizational Behavior and Human Decision Processes*, ١١٨(١), Pp :٤-١٣.

Usman, M., Shahzad, K., Roberts, K., & Zafar, M., (۲۰۱۶): The Effect of cooperative learning on decision making abilities, Journal of Islamic business and management, ۰(۱), Pp:۷۰-۷۰.

Ya-Lie Ku, A., Pei-Yu Lee, S., Man-Hua Shen, L., & Chien-Lin Kuo, H., (۲۰۱۷): Constructing and evaluating a cooperative learning nursing course for cultivating decision making in students in Taiwan, Journal of Nursing Education and Practice, ۴(۷), Pp:۱۷۰-۱۸۴.

Singh, A., (۲۰۱۹): A research paper on the medicine students attitude towards cooperative learning and its learning outcomes, Journal of Dental and Medical Sciences, ۱۰(۲), Pp: ۴۴-۴۷.