Impact of Clinical Supervision Program on Nursing Students' Achievement

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Abstract: *Clinical supervision has a significant role in nursing education of undergraduate students, that has an impact on the degree and type of learning that takes place and how student nurses perform and socialize throughout the nursing profession.Nursing student achievements monitoring is the task of supervisors and are evaluated to provide information on how well they do to recognise obstacles and warn them to areas that will need to be reinforced.*

Aim:*To evaluate the impact of clinical supervision program on clinical student achievement through designing and implementing clinical supervision program for instructors at Technical Institutes, Mansoura city.*

Methods:*Quasi-experimental design was used in the study. The present study was conducted at Technical Institutes for Health at Mansoura city and all clinical instructors (15) and (305) nursing students were included in the previously mentioned setting. Three tools were employed in this study;Clinical Supervision Knowledge, the Maastricht Clinical Teaching Questionnaire (MCTQ)for clinical instructor's and students viewpoints, and Clinical Student Achievement.*

Results:*Highly positive statistically significant improvement in the clinical instructors knowledge about clinical supervision in all dimensions immediately post and after three months of program intervention except the barriers of clinical supervision dimension.All clinical instructors had high level of skill immediately post and after three months of program as reported by clinical instructors and students. Highly statistically significant improvement of students' achievement level before and after implementing program.*

Recommendations:*The current study recommended that:Orientation program for novices clinical instructors on basic technique for performing each step of clinical supervision;identify training needs and implement regular in-service education for clinical instructors about aspect of clinical supervision to prepare them for extending their role in clinical practice setting; implement an innovative and varied strategies of teaching based on evidence-based practicesproper to learner needs anddesirable outcomes;*

provide us with positive environment for learning that fosters free interchange of ideas that facilitate learning; and develop spirit of cooperation between instructors and students by encourage them to actively participate to solve clinical teaching problems.

Keywords: *Clinical Supervision; Supervisors; Student Achievement; Undergraduate.*

I. Introduction

Today, nursing education is facing a major challenge as it examines the findings of conventional clinical supervision and seeks exploring new optionsin preparing the clinical supervisors for the complex and diverse profession of nursing. Providing positive outcomes for student nurses in the clinical environment is necessary to the development of the learning process and plays a major role throughout the nursing curriculum. So, clinical supervision by clinical supervisors in the clinical environment has an influence on type and degree of learning taking place as well as a considerable impact on the socialization of student nurses in the nursing profession[1].

Clinical supervision is really a practice for student nurses to offer professional support and learning. This practice empowers nurse students to take responsibility to their own practice and also to encourage secure patient care[2-3].Clinical supervision is a professional relationship professionally based amongst students and experienced practitioner. This relationship includes the clinical supervisor try to apply clinical knowledge and experience to helpnurses students to improve their clinical practice. It is important to identify that the advancement of care for patients is the emphasis of clinical supervision, instructors᾿ relationship and the learning and professional growth ofstudentnurse [4].

As well as clinical supervision includes the direct or indirect supervision of professional procedures and/or processes performed via a student or group of students in a clinical placement by a clinical supervisor. Clinical supervision was intended to direct, offer better feedback and assess personal, professional and educational advancement throughout the context of the experience of each student providing safe, adequate and high-quality care for patients[5].

Clinical supervisor refers to a role that is responsible for a nurse's students day-to-day supervision of a clinical placement, including feedback and very often assessment[6]. Clinical supervisors are working in educational facilities or seconded to support, instruct and assess student groups from health facilities. Furthermore, help and allow clinical nursing students to gain the necessary knowledge, skills and attitudes to achieve university and nursing regulatory standards[7].

On other hand, clinical supervisor supervises the advancement of the technical and associated skills that students need. It may include time management, problem solving and interpersonal communication skills. Student nurses and trainees learn to merge and integrate their profession's knowledge, skills, values, attitudes and philosophies in addition of having met academic requirements via supervised practice. Towards that end, the supervisor often serves as a role model for student nurses to evolve a proper professional approach and attitude[6].

Moreover, creating a workplace environment is critical for the clinical supervisor that is safe and conducive to learning through a positive supervisor-student relationships and effective coaching the nursing students is probably to have more confidence in her supervisor show more dedication to learning, be better in class and achieve academic achievement at higher levels, and encourage her desire to learn[8-9].

Nursing students' achievement is the ability to meet or exceed academic standards of given institution, it is necessary to reflect on the measure of knowledge and skills acquired and developed by nursing students in the institution's subjects. Of course, achievement is affected by personality, self-determination, motivation, opportunity, sound education and training as a multi-faceted phenomenon. The benefits of nursing students achievement represent public interests, such as increasing the competitiveness and increase civic engagement[10-11].

Furthermore, the achievements of student nurses are evaluated to provide information on how well they do to recognise challenges and to warn them to areas that will need to be strengthened, to evaluate the efficiency of their teaching and to make more informed educational decisions [12-13]. Thus, this study aimed to evaluate the effect of clinical supervision on clinical student achievement through designing and implementing clinical supervision program for instructors.

Significance of the study:

Clinical supervision continues to remain one of most misunderstood practices of clinical nursing for more than a decade. In addition to teaching by clinical supervisors whose standards vary from what is prescribed, discrepancies between what is taught in the school environment and what is practiced in the clinical environment may increase. Moreover, differences between clinical supervisors in the demonstration or assessment of clinical procedures could have had an impact on the rate of passage of nursing students and on the growth and training of skilled nursing professionals. Clinical supervision also allows supervisors to assess the current level of performance of a student on skills and knowledge that each rotation must learn, defines the achievement goals which the student wants to achieve by the end of the year and the rate of improvement that must be made to achieve those goals [12,14].

Aim of study:

This study aims to evaluate the impact of clinical supervision program on clinical nursing students achievement through designing and implementing clinical supervision training program for instructors at Technical Institute of Health at MansouraCity.

Research hypothesis:

Applying clinical supervision training program for clinical instructors will be improving nursing students' achievement.

II.   Subject & Methods

2.1 Design of Study: A-Quasi-experimental design was used.
2.2 Setting: The study was conducted at Technical Institute of Health at Mansoura City.Technical Institute of Health established at (1964) and affiliated to Ministryfor Health and consisted of five nursing division namely; General Nursing, Emergency and Critical Care Nursing, Oncology Nursing, Woman Health and Gynecological Nursing, and Psychiatric Nursing. Each division divides into two years. Total number of nursing students in two years (844) student.

2.3 Subjects: Two groups were used.
- All clinical instructors(15) working at Technical Institute of Health included in the study.
- The total nursing studentssubject (305) of all two years of nursing students at Technical Institute of Health. This number based on representative sample by using **Steven Thimpsone** equation **[15]**to determine sample size with total population (844) student at (2016-2017). The total sample equal (36.14%) subject distributed proportionally at two years of nursing students. The selection of the study subject of the sample size was randomly.
At 95% confidence power of the study.

$$\text{Steven Thimpsone equation } n = \frac{N \times P(1-P)}{\{(N-1 \times (d^2/Z^2)) + P(1-P)\}}$$

n= sample size
N= total society size =180
d= error percentage = (0.05)
P= percentage of availability of the character and objectivity= (0.5)
Z= the corresponding standard class of significance 95%= (1.96)
n= 844x (0.5x 0.5)/843 x 0.52/ 1.962 + (0.5x 0.5)
n= 844 x 0.25 / (843 x 0.002/3.84) + 0.25
n= 211/ 0.69=305
Sample size = 305

2.4Tools
Three tools were used for collection of data:
2.4.1Tool 1: Clinical SupervisionKnowledge: This tool was developed by the researchersguided by**Stalmeijeret al. [16]**, **Zakaria [17]**,**Al Bloushi[18]**, **Gaberson et al. [19]**,**Dehghani et al., [20]**,**Valentino et al., [21]**
and**Smith [22]**.
consisted of two main parts:
Part 1: Demographicand job characteristics of clinical instructors: Name, age, qualification, years of experience, level of workload, duration of clinicalsupervision sessions, frequency, and numbers of students under supervision.
Part 2: knowledge about clinical supervision: This part used to assess the clinical instructors knowledge about supervision such as definition of supervision and clinical supervision, types of supervision, qualities of effective supervisor, functions of clinical supervisor, roles and responsibilities, skills of clinical supervisor, and obstacles to clinical supervision ….etc.
Scoring system
The total score for clinical supervision knowledge test was 100 score. Levels of clinical instructors knowledge were:
- Excellent > 85.
- Very good 85-> 75.
- Good 75-> 65.
- Satisfactory 65- 60.
- Poor < 60.

2.4.2Tool 2:The Maastricht Clinical Teaching Questionnaire (MCTQ)
This tool developed by **Stalmeijer et al. [16]**and cover the following areas:Modeling, coaching, scaffolding, articulation, reflection, exploration, and general learning climate. It used to assess the clinical supervision skills assessment from clinical instructor's viewpoint (self assessment) and student's viewpoint.

Scoring system:
The subject's responses were scored in five point likert scale (1-5) ranging from strongly agree (5) to strongly disagree (1). The maximum scores recognition patterns were (120); these scores were classified into three categories according to the following strength:
1. Low <60%
2. Moderate 6o - <74%
3. High 75-100%.

2.4. 3Tool 3: **Clinical Student Achievement tool** developed by**Akese et al. [23]**and**Edutopia[24]**to assess the level of nursing students' achievement at the end of each clinical rotation. This sheet consists of six elements namely; absenteeism, Uniform, behavior, practice, response, reports, and nursing care plan.

Scoring system:
The total score for nursing students' achievement was 100 score. Levels of students' achievement were:
– Excellent > 85.
– Very good 85-> 75.
– Good 75-> 65.
– Satisfactory 65- 60.
– Poor < 60.

2.5Methods
- **Ethical consideration:** Before commencing the study ethical approval was obtained from the research ethics committee of the faculty of nursing, Mansoura University, an informed consent was obtained from subjects after explaining the process of the study, participation in research was voluntary and the right of withdrawal from the study was reserved, confidentiality and privacy of clinical instructors and nursing students' relevant informationwas ascertained, and the results were be used as component of necessary research as well as future publications and education.
- An official letter was granted from the director of Technical Institute of Health at Mansoura City.
- The tool (2) was translated into Arabic, and tested for its content validity by five experts in the field of nursing administration two of them were lecturers of nursing administration department at the faculty of nursing, Mansoura University and two of them were professor and assistance professor of nursing administration department at the faculty of nursing, Damanhur University and one assistance professor of nursing administration department at the faculty of nursing, Tanta University, were asked to evaluate the tools of this study. The experts were asked to evaluate individual items on the study tools in relation to its relevance and appropriateness and accordingly the necessary modification were done.
- The content validity of the study tools measured to evaluate each items as well as the entire instrument as being relevant and appropriate to test what they wanted to measure. Content validity index (CVI) for Clinical supervision knowledge was (92%), and (95%) for The Maastricht Clinical Teaching Questionnaire for clinical instructors and students.
- A pilot study carried out on 10%of students and equal (31) students from different divisions at Technical Institute for Health, and excluded from the total sample to test tools clarity, applicability and reliability. Responding time for tool (1) was (20) minutes, and for tool (2) was (20-25) minutes.
- Reliability of the study tools tested using the same (31) students to answer the same tools after 2 weeks. Test re-test reliability was computed by measuringCronbach alpha reliability coefficient. Reliability was (0.914) for The Maastricht Clinical Teaching Questionnaire.
- Tool (1)" **Clinical Supervision Knowledge**" used by clinical instructors pre and post as well as after three months of program in presence of researcher to assess changes in clinical instructors' knowledge about supervision.
- Tool (2) **"The Maastricht Clinical Teaching Questionnaire"** used for pre and post and after three months of program implementation to assess changes in clinical instructors' skills of clinical supervision from clinical instructor's viewpoint, and student's viewpoint.
- Tool (3) **"Clinical Student Achievement Tool"** used for nurse students' preprogram and at the end of semester.
- The clinical supervision program designed and implemented to clinical instructors by researchers.
- Duration of data collection lasted (6) months beginning from (1/10/2018) and was finished at (1/4/2019).

Clinical supervision program for clinical instructors
1. Objective of the program:
The main objective of the program is to improve knowledge and skills of clinical instructors about clinical supervision for their students.
2. Selection and organization of contents:
The contents were selected and organized based on literature review, analyzed pretest data of clinical instructors and students' knowledge about clinical supervision, and monitor instructors work. The use of simple scientific and professional language was considered to ensure that knowledge and skills of instructors about clinical supervision will improve.

3.   Implementation of the program:
❖   **Contents:**
Program was included topics of definition of supervision, clinical supervision and clinicalsupervisor, the importance, benefits of clinical supervision, and types of clinical supervision,skills of clinical supervisors , and the functions of clinical supervisors,characteristics and good qualities of clinical supervisors, and roles and responsibilities of clinical supervisors, methods of clinical supervision, and clinical supervision code of ethics, and obstacles of clinical supervision.

❖   **Methods of teaching:**
Selection of teaching methods was governed by consideration for characteristics of subjects themselves and content of the program. The methods used in the program included: Brain storming, lecture, small group discussion, and use of slides.

❖   **Teaching aids:**
The teaching aids used in the program were: power point presentation, whiteboard, booklets, flipchart, and images.

❖   **Setting:**
The program was conducted at Technical Institute of Health at Mansoura City.

❖   **Participants:**
All clinical instructors (15)working in the previously mentioned setting which divided into two groups, the one group (7) instructors and the other (8) instructors.

❖   **Time:**
The clinical supervision program will be carried out on five sessions every session (2 hours). Each group takes (10) hours. Total time of the program (20) hours.

2.6Statistical analysis:
The collected data were organized, tabulated and statistically analyzed using SPSS software (Statistical Package for the Social Sciences, version 21, SPSS Inc. Chicago, IL, USA). For quantitative data, mean and standard deviation were calculated. For qualitative data, comparison between two mean (pre- post) (pre-post 3 months) was done using paired T –test . Correlation between categorical variables was evaluated using Fisher's Exact Test. P- Value, which was ≤ 0.05 and 0.01 were reflected as statistically significant**[25]**.

III.Results

Table (1) illustrates the demographic characteristics of the studied clinical instructors. The majority of the clinical instructors (60.0%) were in the age group (30-40) with mean age (32.8±4.90). The Highest percent of them (46.7%) had master degree. Equal percent of them (33.3%) had respectively(1-<6), (6-10) and (>10) years of experience with mean score (9.20 ±5.70). Most of them (73.3%) had a moderate work load. More than (40%) duration of their supervision sessions were (46 to 60 minute). The frequency of clinical supervision session was weekly for all of them. Two third of them (66.7%) had (36-45) students under their supervision with mean score (37.0 ±5.38).

Table (2)represents mean scores of knowledge about clinical supervision among the studied clinical instructors during different phases of program intervention**.** It illustrates the highly positive statistically significant improvement in their knowledge about clinical supervision in all dimensions during immediately post and after three months of the program intervention except the barriers of clinical supervision dimension. The highest mean score (16.13) and (13.60) were for methods of clinical supervision at immediate post and after three months of the program intervention respectively. Moreover total knowledge about clinical supervision increased from (40.66) preprogram to (90.26) immediate post program.

Table (3)revealslevels of the clinical instructors' knowledge about clinical supervision during different phases of program intervention. They show highly statistically significant improvement in levels of knowledge about clinical supervision during different phases of program intervention increased from (0%) excellent preprogram to (93.3%) and (13.3%) at immediate post and after 3 months respectively, equal percent (40%) for good and very good after three months of program.

Table (4) illustrates clinical supervision skills assessment mean scores as reported by the studied clinical instructors and students during different phases of program intervention. It shows highly statistically significant difference between clinical instructors and student regarding clinical supervision skills assessment for all domains at the different phases of program intervention. Total clinical supervision skills as reported by clinical instructors were (105.73±9.98), (119.60±0.73) & (117.86±3.09) pre, immediate and after three months respectively.While total clinical supervision skills as reported by students were (61.59 ±9.33), (109.14 ±10.14) & (93.29 ±15.12) pre, immediate and after three months respectively.

Figure (1)representslevels of clinical supervision skills assessment as reported by the studied clinical instructors during different phases of program intervention. The figure reveals all clinical instructors had high

level of skill immediate post and after three months of program.

Figure (2) illustrates levels of clinical supervision skills as reported by the studied students during the three phases of the program intervention. According this figure there was highly statistically significant improvement in levels of clinical supervision skills assessment at pre, immediately post & after three months of program intervention. The level of clinical supervision skills assessment increased from (0.00%) preprogram to (94.8%) and (61.0%) immediate post and after three months respectively.

Table (5)illustrates students' achievement levels according to their academic year before and after implementing clinical supervision program. The table reveals highly statistically significant improvement of students' achievement levels after implementing clinical supervision program at both years.

Table (6) & figure (3)represent mean score of students' achievement according to their academic year before and after implementing clinical supervision program. They reveal highly statistically significant difference between students achievement according year before and after the program.According first year the mean score increased from (70.17 ± 10.17) pre-program to (77.64 ± 10.24) post-program. While second year the mean score increased from(77.25 ± 10.11) pre-program to (84.37 ± 10.18) post-program. There was highly statistically improvement among students in total achievement score increased from (73.44%) preprogram to (80.75%) post program intervention.

Table (1): Demographic characteristics of the studied clinical instructors (n= 15).

Variables	The studied clinical instructors (n=15)	
	No	%
Age (years)		
▪ 20-<30	3	20.0
▪ 30-40	9	60.0
▪ >40	3	20.0
Mean ± SD	32.8 ±4.90	
Educational qualification		
▪ Bachelor degree	5	33.3
▪ Master degree	7	46.7
▪ Doctorate degree	3	20.0
Experience years		
▪ 1-<6	5	33.3
▪ 6-10	5	33.3
▪ >10	5	33.3
Mean ± SD	9.20 ±5.70	
Work load		
▪ Moderate	11	73.3
▪ Heavy	4	26.7
Duration of clinical supervision sessions		
▪ Less than 15 minute.	2	13.3
▪ 15 to 30 minute.	4	26.7
▪ 31 to 45 minute.	2	13.3
▪ 46 to 60 minute.	7	46.7
How often are your clinical supervision session?		
▪ Weekly	15	100
Number of student under supervision of clinical instructors		
▪ 25-35	4	26.7
▪ 36-45	10	66.7
▪ >45	1	6.7
Mean ±SD	37.0 ±5.38	

Table (2): Mean scores of clinical instructors knowledge about clinical supervision during different phases of program intervention (n=15).

Knowledge domains about clinical supervision	Pre-program (n=15) Mean ±SD	Immediate post-program (n=15) Mean ±SD	3 months post-program (n=15) Mean ±SD	P1	P2
❖ Definition of supervision, clinical supervision and clinical supervisor	2.00 ±0.00	5.46 ±0.91	5.60 ±0.82	0.000	0.000
❖ Importance of clinical supervision	2.66 ±2.09	5.73 ±0.70	4.53 ±0.91	0.000	0.004
❖ Characteristics of effective supervisor	4.13 ±2.44	11.06 ±1.48	8.93 ±2.49	0.000	0.000
❖ Roles and responsibilities of clinical supervisor	3.86 ±2.87	13.33 ±0.97	10.26 ±1.48	0.000	0.000
❖ Skills of clinical supervisor	3.46 ±2.06	8.66 ±2.22	7.60 ±3.13	0.000	0.000
❖ Barriers of clinical supervision	1.86 ±0.51	2.00 ±0.00	2.00 ±0.00	0.334	0.334
❖ Types of supervision	6.00 ±2.82	12.40 ±1.12	10.53 ± 1.18	0.000	0.000
❖ Function of clinical supervisor	3.46 ±2.19	8.80 ±1.26	7.06 ±1.03	0.000	0.000
❖ Methods of clinical supervision	8.13 ±2.44	16.13 ±1.40	13.60 ±2.29	0.000	0.000
❖ Ethics of clinical supervisor	5.06 ±1.66	6.66 ±1.63	6.00 ±1.69	0.009	0.048
Total knowledge about clinical supervision	40.66 ±6.61	90.26 ±4.19	76.13 ±7.29	0.000	0.000

P1: Comparison between pre-program and immediate post-program
P2: Comparison between pre-program and 3 months post-program (P <0.05) Significant

Table (3): Levels of the clinical instructors knowledge about clinical supervision during different phases of program intervention (n=15).

Total knowledge about clinical supervision	Pre-program (n=15) No	Pre-program (n=15) %	Immediate post-program (n=15) No	Immediate post-program (n=15) %	3 months post-program (n=15) No	3 months post-program (n=15) %
▪ Poor (<60 %)	15	100.0	0	0.0	0	0.0
▪ Satisfactory (60 –65%)	0	0.0	0	0.0	1	6.7
▪ Good (>65 - 75%)	0	0.0	0	0.0	6	40.0
▪ Very good (>75 - 85%)	0	0.0	1	6.7	6	40.0
▪ Excellent (>85 %)	0	0.0	14	93.3	2	13.3
P*	0.000**					

*Fisher's Exact Test
(P <0.05) Significant

Table (4): Clinical supervision skills as reported by the studied clinical instructors and students duringdifferent phases of program intervention.

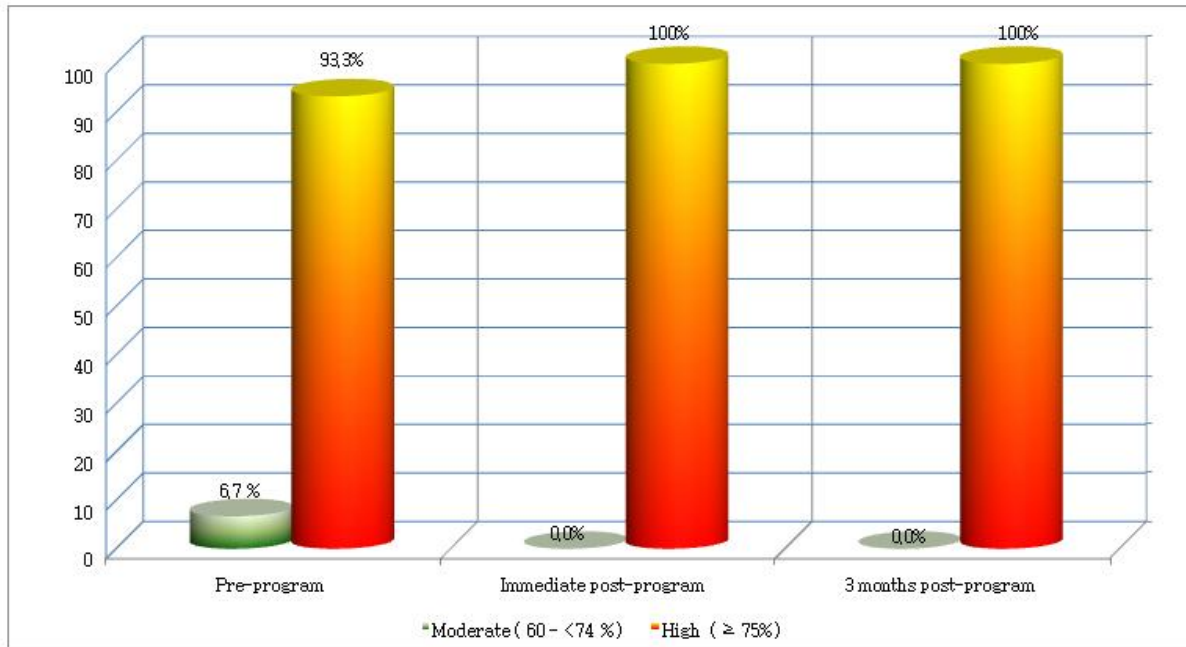| Domains of clinical supervision skills	Pre-program Clinical instructors (n=15) Mean ±SD	Pre-program Students (n=305) Mean ±SD	P*	Immediate post-program Clinical instructors (n=15) Mean ±SD	Immediate post-program Students (n=305) Mean ±SD	P*	3 months post-program Clinical instructors (n=15) Mean ±SD	3 months post-program Students (n=305) Mean ±SD	P*
A-Modeling	18.66 ±1.29	10.43±1.67	0.000**	19.73±0.59	18.50±1.63	0.004**	19.66 ±0.81	15.63 ±2.24	0.000**
B- Coaching	13.46 ±1.35	7.94 ±1.68	0.000**	15.00 ±0.00	13.79 ± 1.67	0.006**	15.00 ±0.00	12.30 ± 2.15	0.000**
C- Scaffolding	17.66 ±1.75	10.40 ±2.20	0.000**	20.00 ±0.00	17.94±2.07	0.000**	20.00 ±0.00	14.84 ±2.52	0.000**
D- Articulation	16.86 ±2.19	10.02 ±2.44	0.000**	20.00 ±0.00	18.49 ± 1.880	0.002**	19.33 ±0.81	16.08 ±3.01	0.000**
E- Reflection	8.33 ±1.54	4.89 ±1.45	0.000**	9.86 ±0.51	8.93 ±1.51	0.001**	9.66 ±1.04	7.55 ±2.08	0.000**
F- Exploration	13.26 ±1.38	7.49 ±2.10	0.000**	15.00 ±0.00	13.31 ±2.32	0.000**	14.80 ±0.41	11.33 ±3.15	0.000**
G-General learning climate	17.46 ±2.74	10.39 ±2.44	0.000**	20.00 ± 0.00	18.15 ±2.50	0.005**	19.40 ±1.68	15.52 ±3.43	0.000**
Total clinical supervision skills	105.73±9.98	61.59 ±9.33	0.000**	119.60±0.73	109.14 ±10.14	0.000**	117.86 ±3.09	93.29 ±15.12	0.000**

(P <0.05) Significant

Figure (1):Levels of clinical supervision skills assessment as reported by the studied clinical instructors during different phases of program intervention (n=15).
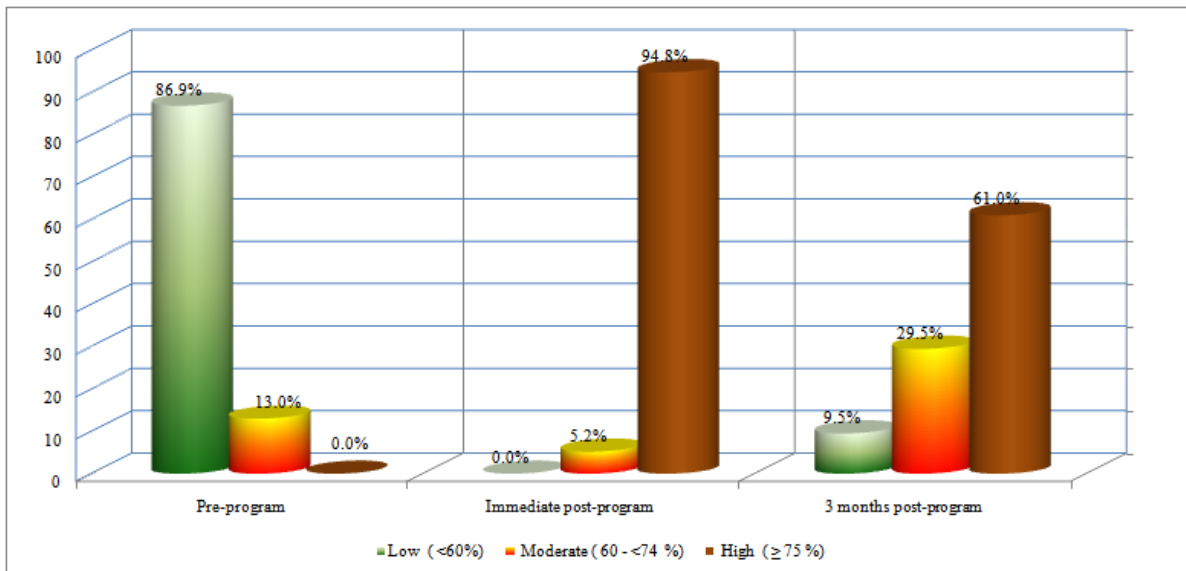

Figure (2):Levels of clinical supervision skills assessment as reported by the studied students during different phases of program intervention (n=305).

Table (5): Students' Achievement levels according to their academic year before and after implementing clinical supervision program (n= 305).

Students' achievement levels	Frist academic year				Second academic year			
	Pre-program (n=164)		Post-program (n=164)		Pre-program (n=141)		Post-program (n=141)	
	No	%	No	%	No	%	No	%
▪ Poor (<60 %)	13	7.9	0	0.0	7	5.0	8	5.7
▪ Satisfactory (60 –65%)	31	18.9	14	8.5	8	5.7	14	9.9
▪ Good (>65 -75%)	88	53.7	19	11.6	34	24.1	9	6.4
▪ Very good (>75 - 85%)	14	8.5	73	44.5	65	46.1	41	29.1
▪ Excellent	18	11.0	58	35.4	27	19.1	69	48.9

(>85 %)								
P*	**0.000****				**0.000****			

(P <0.05)   Significant

Table (6): Mean score of students' achievement according to their academic year before and after implementing clinical supervision program (n= 305).

Academic year	Total students' achievement score		P*
	Pre-program	**Post-program**	
	Mean ±SD	**Mean ±SD**	
▪ Frist academic year	70.17 ±10.17	77.64 ±10.24	**0.000****
▪ Second academic year	77.25 ±10.11	84.37 ±10.18	**0.000****
Total students' achievement score	**73.44 ±10.72**	**80.75 ±10.74**	**0.000****

(P <0.05)   Significant
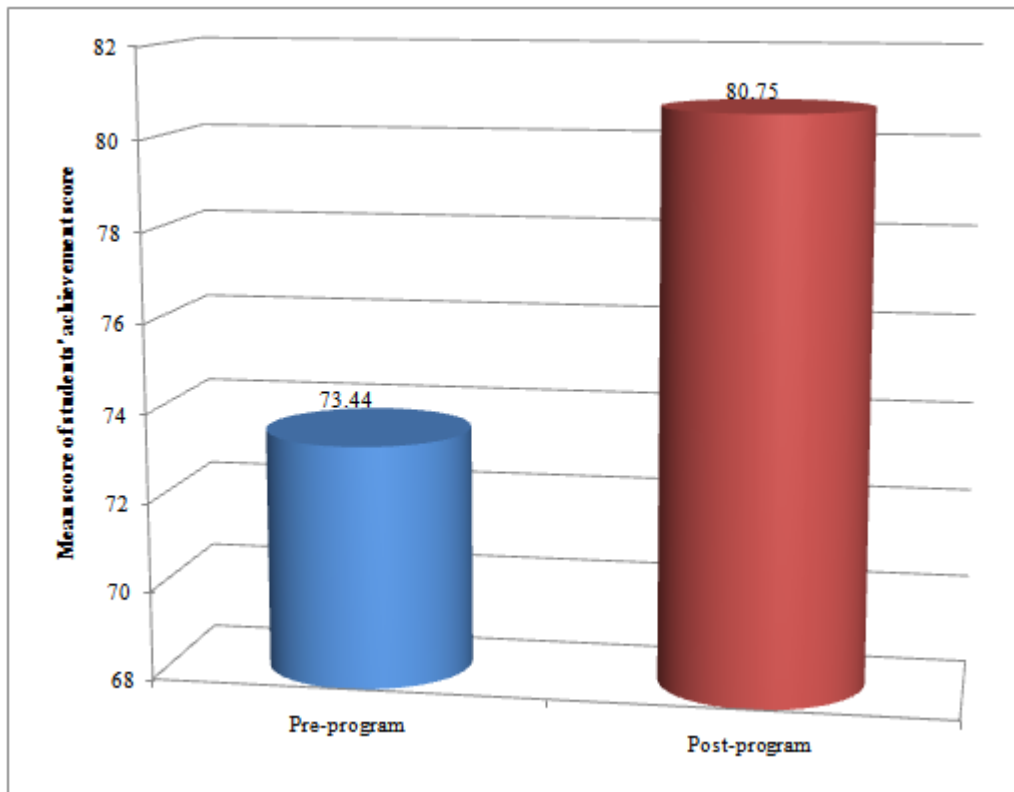
Figure (3):Mean score of total students' achievement before and after implementing clinical supervision program (n= 305).

IV. Discussion

Effective clinical supervision plays a definitive role in the program of undergraduate nursing. Not only it provide chances for application the theory learned in the classroom to the real world of clinical nursing by students, it is also a process of socialization through which students are deeply inducted inside the expectations, and practices. As well as enhance the achievement of students, which continues to play a significant role in the production of high-quality graduate students who will become the country's leader and manpower Zenani [26].

Results of this study illustrated that highly statistically significant improvement in clinical instructors' knowledge about clinical supervision dimensions immediately and after three months post program. Also clinical instructors were very good and excellent in their levels of knowledge immediate post program. This may related to clinical instructors knew the importance of clinical supervision sessions to integrate theory, practical skills, with patient contact to make the clinical supervision process as realistic as possible, develop students empathy with patients, helps to diagnose instructional problems, find out the shortcomings and advantages of their teaching performances in the classroom, monitor students' progress understanding and/or identify areas for further improvement.

This may direct the attention that the implementation of current educational program was succeed as mean for improving present study clinical instructors knowledge. Educational program assists those clinical instructors on how to be at good level of clinical supervision content, having ability in their profession, being independent, having control over their work, and be self-directing as well as they possess good knowledge and effective clinical supervision skills to perform their roles effectively.Zakaria[17]supported study result and stressed that the importance of educational program for instructors to enable them to provide an opportunity for student nurses to improve their essential knowledge and skills.

Consistence with the resultHassan [27] who revealed that there was general improvement in clinical teaching and supervision knowledge and performance of assisted teachers' staff immediate and follow up phase as compared to pre course knowledge.

On the same line Zakaria [28]who studied aboutassessment of nursing instructors clinical teaching competences level of performance and revealed that post program, the majority of nursing instructors showed satisfied level of performance positively correlated to their high mean score of knowledge about clinical teaching during supervision.

In accordance withEl Zenenyet al. [29] who concluded that statistical significant differences and marked improvement in participants total knowledge as the highest percentage of them immediately and after 3months post program compared to preprogram.As well as Saleh [30]who indicated that high statistical significant differences in participants level of knowledge regarding clinical supervision at three times of the program.

In agreement with Veloo et al. [31]who concluded that clinical supervision assists clinical instructors discover the weaknesses and advantages of their classroom teaching performance.Clinical supervision also assists instructors develop their teaching and learning to be more efficient in enhancing the understanding of students.Clinical supervision can also be used as a guide for improving teaching and learning.

In contrast Eta et al.[32]who conducted his study at Cameroon and indicated that in spite of the clinical supervision significance to the nursing profession, in variousplaces, Cameroon inclusive, most student in nursing acknowledged always encountering challenges in clinical supervision. The major challenges determined were often taught by instructors who had little or no previous formal knowledge and teaching. They also noted that there were no instructions on how to effectively teaching clinical instructors, supervising student nurses, and assessing student nurses during clinical placements.

In the opposite side Salah [33]study about efficiency of accompaniment of nurses' educators to nursing students in clinical setting, revealed that nursing educators had low level of knowledge, and needed to improve their knowledge with regard to the accompaniment of student nurses.

The present study not consistent withzakaria[17]study about the barriers of clinical nursing in clinical supervision during round and revealed that clinical instructors had inadequate clinical knowledge. AlsoJamshidi et al. [34]study done in Iranshowed that clinical education is an important aspect of nursing education and makes up over half of the curriculum in nursing. It has been found that clinical supervisors often do not have a formal background in nursing education and that there are variations in how different clinical supervisors supervise students. Moreover, not all supervisors are able to reflect and struggle with the convergence between theory and practice.

Regarding clinical supervision skill assessment from the viewpoints of clinical instructors and students. Although there were highly statistically significant differences between them at different phases of program, the both groups reported highly statistically significant improvement in the levels of clinical supervision skills at immediately post and after three months of program intervention.

Really practical training and clinical supervision require serious preparation by both the instructor and the student so that she can meet the demands of the clinical experience.The preparation of a student requires not only the integration of scientific and technical concepts it also includesclinical instructors must possess significant skills and characteristics at some fundamental level, developing her self-actualization, ethics and professional commitment. Even though many instructors may have a very good understanding of how to prepare a student's practical training.

Similarity to Abadi et al. [35]whoconcluded that there was a significant and positive correlation between knowledge, skill and the importance of physical assessment.In this regard Zachariah &Wanzare [36] study about skills and attributes of instructional supervisors: Experience from Kenya stressed that to be efficient in promoting the performance of teacher and the student learning, they mustalways be equipped with supervisory skills via in-service training to develop teaching standards in our schools.Instructional supervisors attributes and skills are crucial to the instructional supervisory process success.

As well as, students and faculty vary in their views on clinical instructors ' effectiveness, overall they agreed that the finest clinical instructors should possess sound interpersonal skills, clinically competent, know how to effectively teach, evidence of the good role modeling, good at providing feedback, and mutual respect are widely accepted or required by the students. Thus, instructors are anticipated to educate based on the situation and need of students needBifftu et al. [37].Clinical instructors have a major role in thestudents' clinical learning.

Clinical instructors ought to be offered regular faculty improvement programs to maximise their supervising skills and improve the quality of their teaching experiencesAlhaqwi&Taha [38].

Also, EL Banan&Elsharkawy[39]emphasizedthat the effective clinical teacher must have mastered the teaching ability. This ability involves the skills needed to transfer knowledge, and attitudes from the teacher to the student and also involved the ability to develop an atmosphere that inspires learning of student.

Gürsoyet al. [40]supported present study and concluded that in order to enhance the quality of teachers' supervisory skills and university supervisors, the project researchers shouldprovide supervisory skill training to teachersand university supervisors, e.g. communication skills, feedback, and professional behavior of the university supervisors. Results indicated that there are statistically significant differences amongstthose who trained and those who didn't train.

ConverselyGillieatt et al. [41] concluded that although most respondents rating their supervisory skills level pre-workshop as either 'good' or 'very good', the majority reported that their post-training skills had 'definitely changed ' or ' mostly changed '.As well as Shahsavari et al. [42] stressed that the existing Iranian clinical environment is not conductive to learning for students. Iranian nursing students believed that some nursing instructors are ineffective. In addition, most Iranian nursing students' attitudes to clinical learning environments are negative. Alsostudents recommended that instructors need to enhance their supervisory skills as the best way to achieve the goals of clinical supervision during additional training coursesVaižgėlienė et al. [43].

In relation to students achievement, the present study revealed highly statistically significant improvement among students in total achievement scores increased from preprogram to post program intervention. This due to the majority of clinical instructor had high mean score in general knowledge and skill post the program. No doubt, that instructors who have educational background will provide the nursing students with essential foundation of knowledge that help them to integrate theory and practice during supervision experience in clinical setting. Also nursing interaction with clinical instructor during supervision to facilitate knowledge and skills development, and to be socialized to the value of nursing as profession.

To be skilled in interpersonal relationships, nurse instructor needs to take personal interest in nursing students, being sensitive to their feelings and problem conceiving respect from them, alleviating their anxieties, and being accessible for conferences. Being fair, permitting students to express differing points of view, creating atmosphere in which they feel free to ask questions, and conveying a sense of warmth. In order to enhance the benefit of the nursing supervision, and to ensure both instructor and students satisfaction, significant importance has to be given to preparing out the purposes prior to the supervision and orienting the students with those purposes.

On accordance, Niederriter et al. [44]who discovered that clinical instructor was able to determine areas that require improvement and provide suggestions to help students in their progress. And added that clinical supervisor clinical knowledge is important to students'to success.

In this regardHassanet al. [45] who concluded that clinical supervision at clinical settings leads to improved performance and achievement of students. There is evidence of remarkable improvement in the mastery of clinical skills as manifested in the students' scores in physical examination and procedures stations.In agreement withHasanpour-Dehkordi&shohani [46]whostated that clinical supervision is a part of the nursing students education plan to improve performance by creating suitable conditions for improving skills in theimplementation of nursing knowledge in the field, in accordance withwith the promotion of creative power and inclusive autonomy observing.

On the same lineHeidari&Norouzadeh[47] concluded that more formal interactions between students and instructors, and ongoing assessment and support by instructors in their work place lead to increase the ability of students to dealing with stress in clinical practice , increase clinical experience, and achievement level.This congruent withChuan&Barnett [48]study about student tutor and staff perceptions of the clinical learning environment students, support present result finding and reported that nurse instructors use diversity of learning opportunities to student which facilitated their learning and develop learning outcome.

Effective supervision which is a facilitator of the effective clinical practice promoted learning and assisted students to achieve their learning outcomes and competencies via the variety of learning opportunitiesGemuhay et al. [49]. AlsoDube&Mlotshwa[50] concluded that the majority students agreed that the academic support services provided by the instructor assists to improve their academic performance and practical skills.

In contrast withPhuma-Ngaiyaye et al.[51] who stated that the clinical instructorshave dual responsibility for the classroom and clinical supervision. Today, student enrollment in training colleges has increased the workload for clinical instructors as they strive to meet the increased the classroom teaching, research activities and administrative tasks.There is insufficient time for clinical instructors to provide sufficient clinical support to students.

On the opposite side Dehkordi&Shohani [52] who concluded that various studies have shown that the presence of many problems inhibit the instructor and the students from achieving the goals of the course such

lack of definite job descriptions for students and instructor, mismatch consistency amongst the acquired material and their usage in the clinic, shortage of educational facilities and amenities, and drop in the students' rate.

Additionally, academic achievement, much workload and consultants, learning unscientific and incorrect methods, shortage of time in responding to educational needs, inconsistency amongst theoretical learning and nursing clinical services, absence of accurate evaluation by instructorinhibits the instructor and the trainees from achieving the course goals. Also absence of the essential opportunity to implement standard procedures and undesirable clinical conditions according to theoretical principles that negatively affect achievement of student.

AlsoZakaria [17]pointed that clinical instructor faced with time constrains and lack of understanding of student learning needs, in addition studied revealed low level of performance for most of the clinical instructor in preparing students before clinical supervision conduction. And added that majority of nurse instructor had low level in performing their role during implementation phase which affect negatively on students achievement.

Moreover,Donough&Van de Heever[53] studied undergraduate nursing students' experience of clinical supervision who concluded that the undergraduate nurses students have expressed that the different supervisors demonstrated the same clinical procedures in a different way. These differences tend to negatively impact how well the student learns in addition to finalizing their final examination successful.In addition tonursing students perceive themselves as inadequately prepared to provide health education and the nursing administrators perceive undergraduate students at a lower achievement level in this aspect. Also most of those reported that they have limited knowledge about health education process Reyes, Hadley& Davenport [54] andAbdel Rahiem [55].

V. Conclusion &Recommendation

The study concluded that clinical supervision program improved the clinical instructors knowledge in all dimension of clinical supervision. Also, clinical instructors skills were improved after program as reported by both instructors and their students. Moreover, students` achievement improvement were achieved after program implementation. Based on these results, it was recommended that:

As regard clinical instructors

➢ Orientation program for novices clinical instructors on basic technique for performing each step of clinical supervision.

➢ Identify training needs and implement regular in-service education for clinical instructors about aspect of clinical supervision to prepare them for extending their role in clinical practice setting.

➢ Implement innovative and varied strategies of based on evidence-based practices proper to the learner needs anddesirable outcomes.

➢ Provide positive learning environment that fosters a free interchange of ideas that facilitate learning.

As regard students

➢ Encourage the student to be an active participant in establishing educational and take into consideration the student's experience level and the nature of the clinical area.

➢ Develop spirit of cooperation between instructors and students by encourage them to actively participate to solve clinical teaching problems.

Limitation of the study:
Small sample sizeof clinical instructors at the time of data collection was (15).

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