Effect of Rubric versus Traditional Assessment on Maternity Nursing Students' Self-Efficacy and Satisfaction

Randa Mohmed Ebrahim, Nevin Samir Metwally, Amira Morsy Yousif

Abstract: Clinical performance assessment of nursing students represent challenge even for the experienced nursing educators because of subjectivity. Rubric assessment provide consistency in evaluation reduces subjectivity and enhances objectivity. Aim of the study: to evaluate the effect of rubric versus traditional clinical assessment on maternity nursing student's self-efficacy and satisfaction. A quasi-experimental research design was used. A purposive sample technique was used to recruit 206 nursing students at Maternity and gynecology nursing department at academic year 2015-2016 and 2016-2017. The present study was conducted at antenatal clinical area at Maternity and gynecology nursing department at Faculty of Nursing at Ain Shams University. Three tools of data collection 1st tool was self-administrative questionnaire, 2nd tool was nursing competency self-efficacy scale, and 3rd tool was nursing students’ academic satisfaction scale. Results: reveals that there is no statistical significant difference between control group and intervention group regarding their self-efficacy and satisfaction at first trial. While, there is a highly statistical significant difference between control group and intervention group regarding their self-efficacy and satisfaction at second trial. In addition, there is a highly statistical significant improvement on maternity students' self-efficacy and satisfaction after intervention. Conclusion: Rubric clinical assessment has positive effect on maternity nursing students' self-efficacy, and satisfaction than traditional clinical assessment. Recommendation: application of rubric assessment tool as an integral part of undergraduate nursing students’ clinical evaluation system.

Keywords: Rubric, Traditional clinical assessment, Maternity nursing students, Self-Efficacy, Satisfaction.

I. INTRODUCTION

Nursing education comprises both theoretical and practical training. Nursing as a practice-based learning require competent educators able to manage students’ training and assessment in clinical setting. Clinical education is a crucial part of nursing education as it provides students with opportunities to attain scientific knowledge, skills, and competencies for patient care. Clinical performance assessment is dominant to any educational program but is specifically critical for nursing education to confirm that students’ nurses are expert practitioners. Clinical performance assessment aims to improve students’ quality of care, patient's safety, and achievement of clinical learning objectives (Perry, 2015).

Clinical Performance assessment is a method of measuring achievement of clinical competency. The reliability of the performance assessment, basically, depends on the chosen competencies. Performance assessment is the process that measure students’ task performance with task standards to measure how well the task is performed (Wu et al, 2016). Assessment has two correlated functions that are attained formative and summative. Formatively assessment is aimed to provide feedback about learning and recognize areas requiring remediation, while summative assessment points to making judgment to decide if the students’ performance meets the academic and professional requirement (Msiska et al, 2015).
Nursing students are expected to practice multiple task-related skills during their clinical education. These qualified clinical competencies are described as a ‘combination of skills, knowledge, attitudes, values and abilities that reinforce effective clinical performance in clinical area. Therefore, valid and reliable assessment of students' clinical performance is essential to ensure willingness for practice. It is important, that clinical performance is assessed against well-established standards; however, there is no clear agreement about how clinical performance assessment of nursing students can best be attained (Cant, McKenna, and Cooper, 2013).

Clinical performance’s assessment is an important part of nursing student educational process so, it is necessary to use appropriate assessment strategies that based on valid and reliable assessment tool (Helminen, et al, 2015). The significance of nursing students' clinical performance must not be ignored: assessing students' clinical performance and understanding their opinion of their skills and the expectations of them are necessary to identifying their educational needs and ways to help them improve clinical performance (Poorgholami et al, 2016).

Traditional clinical assessment (check list) is not standardized to evaluate students' clinical performance, judgment, critical thinking and problem solving skills especially with large group of students. Moreover, traditional clinical performance assessment is continually an area of debate for nurse educators and students. Disparities in nurse educators’ assessment and subjectivity in grading were frequently students’ complaints. Several problems have been raised in the assessment of nursing clinical performance as heterogeneity of tools used from period to period, difference in the assessment process by the nurse educators, and lack of suitable framework for indicating the students’ improvements (Rajfiee et al, 2014). Therefore, rubric assessment tool that reliably evaluate students’ clinical performance and offers significant feedback is necessary in today's nursing education (Shipman, et al, 2012).

Rubric as assessment tool represents the set of standards and criteria to assess students' performance. Rubric encompasses unique dimensions of assessment organized in columns and standards for each of those dimensions in matching rows. A rubric refers as “an assessment tool that utilizes clearly defined assessment criteria and competency levels to measure student achievement of those criteria”. In clinical nursing education, rubrics are utilized to assess student performance and it focuses on patient safety & quality of patient care (Vishnu, et al, 2015).

Rubrics as assessment tool use to assess students different clinical activities such as research reports, portfolios, oral presentations, and group activities. In addition, rubric assessment tool can be self-assessments by students; or by others, such as nurse educators, other students, and fieldwork supervisors. Rubrics can be used to clarify expectations to students, to provide formative feedback to students, to grade students, and/or to assess courses and programs (Vishnu, et al, 2015).

Rubric assessment tool composed of four essential components which are task description, scale of achievement, dimensions & description of dimensions. The type of rubric selected for assessment depends on the task being assessed. Furthermore, there are different types of rubric are available as holistic rubrics, analytic rubrics, and generic rubrics (Khosravi et al, 2014).

Rubrics assessment tool has many benefits either for nursing students or nursing educators. Benefits for nursing students are assisting students understand their role and responsibilities, providing specific, effective and individualized quick feedback, enabling nursing students to identify their expected score based on how well they meet standards described in each category at rubric tool. Therefore, students’ who has poor performance early in the term has time to make improvements at end of term (Vishnu, et al, 2015). While, rubrics helps nursing educators in fast reviewing of students' clinical performance as tool describe the level of performance clearly. So nursing educators doesn't have to write comments to justify their rating score. These help clinical educators to teach effectively in a busy clinical environment. Also it helps new nursing educators to assess students accurately by assigning a numerical value to each rating (Shipman et al, 2012).

Self-efficacy is the belief in one’s competence to do actions required to achieve a specific goal and to manage future situations. Nursing students higher score in clinical performance assessment result in improvement their self-efficacy, while lower score or failure on clinical performance assessment leading to lower self-efficacy. There are several strategies mentioned in the literature that improve the nursing student’s self-efficacy. Clinical performance assessment tool "rubric" is one the effective strategies that enhance nursing students’ self-efficacy through helping students to accomplish or master clinical task (Soudagar, Rambod, and Beheshtipour, 2015).
Students’ satisfaction is the outcome of educational process and is an indicator of quality of theoretical and practical nursing education. Students’ satisfaction is very essential in assessment of educational process at the faculties (Tessema, Ready, and Wei-Choun, 2012). Moreover, students’ clinical assessment, self-efficacy and satisfaction are factors that affect nursing student achievement. Assessing student's satisfaction with their clinical performance is necessary for nursing faculty to improve educational performance (Papathanasiou, Tsaras, and Sarafis, 2014). Therefore, using rubrics assessment tool simplify the grading experience, shortening grading time, and enhancing the quality and quantity of nursing educator feedback this consequence increase student and nursing educator satisfaction (Naber, and Allison, 2015).

Assessment of maternity nursing students' clinical performance is a crucial role of nurse educators. Therefore, nurse educator must ensure that a student has chance to practice clinical performance effectively and efficiently through using appropriate assessment tool that is valid, reliable and help student to improve clinical performance with effective feedback (Perry, 2015).

Significance of the study:

Clinical performance assessment is a process of verifying the clinical competence, and measuring student achievement in nursing education. The assessment of students' clinical performance is complicated process challenge nursing educators. Therefore, the clinical performance assessment of nursing students in clinical practice represented a problem require urgent solution to solve it. Moreover, variations in nurse educators' assessment and subjectivity in grading were frequently students' complaints.

Accurate, valid and reliable evaluation of students' clinical performance is important to ensure willingness for practice. Therefore, it is essential that performance is evaluated against standards. However there is no clear agreement about how clinical assessment of preregistration nursing students can best be achieved. Therefore, researchers conducted this study for discovering the most effective assessment tool that reliably evaluate students' clinical performance and offers significant feedback which is necessary in today's nursing education.

Aim of the study

To evaluate the effect of rubric versus traditional clinical assessment on maternity nursing student's self-efficacy, and satisfaction through;

1-Assessing the effect of rubric clinical assessment on maternity nursing student's self-efficacy.
2-Evaluating the effect of rubric clinical assessment on maternity nursing student's satisfaction.
3- Investigating the effect of rubric versus traditional clinical assessment on maternity nursing student's self-efficacy, and satisfaction.

Research Hypothesis:

The current study hypothesized that: Rubric clinical assessment has positive effect on maternity nursing students' self-efficacy, and satisfaction than traditional clinical assessment.

II. SUBJECT & METHODS

Research design: A Quasi experimental design was utilized to meet the aim of the study.

Setting: The present study was conducted at antenatal clinical area at Maternity and gynecology nursing department at Faculty of Nursing at Ain Shams University.

Sample size, type, and technique:

A purposive sample technique was used to recruit 206 nursing students at maternity and gynecology nursing department at academic year 2015-2016 and 2016-2017. Those students were divided into two groups (intervention group "Rubric clinical assessment” and control group "traditional clinical assessment check list"). Data was collected at second semester of academic year 2015-2016 for control group, and at first semester of academic year 2016-2017 for intervention group.
Exclusion criteria:
Nursing students had previous experience with rubric assessment in both groups

Tools of data collection:
Three tools of data collection were used as the following;

I. Self-administered questionnaire that was constructed by researchers after reviewing the related literature. It was divided in 2 parts and consisted of (10) questions of open and closed-ended types: the first part; included assessment of student personal data and past learning experience (questions: 1- 5). Second part; included students' evaluation of clinical training assessment tool (traditional and rubric) (questions: 6- 10). It took 5 minutes to be filled by students. Cronbach's alpha coefficient was 0.92.

II. Nursing competency self-efficacy scale adapted from (Kennedy et al, 2015) it was used to assess nursing students' self-efficacy. It consisted of 17 items that cover three domains. Each item was scored on a 5-points Likert scale (1= strongly disagree, 2= disagree, 3= uncertain, 4=agree, 5=strongly agree). Total score ranged from 17-85 with 85 indicating highest possible score. Students consider had poor self-efficacy if students total score was ≥ 34, students consider had good self-efficacy if students total score was 35- ≥ 51, and students consider had high self-efficacy if students total score was ≥ 68. It took 20 minutes to be filled by students. Cronbach's alpha coefficient was 0.86.

III. Undergraduate Nursing Students' Academic Satisfaction Scale (UNSASS) adapted from (Dennison and El-Masri, 2012) it was used to assess nursing students' satisfaction with their clinical teaching & evaluation. It contains of 15 items. Each item was scored on a 5-points Likert scale (1 = strongly dissatisfied, 2 = dissatisfied, 3 = somewhat satisfied, 4 = satisfied, 5 = strongly satisfied). Students consider satisfied with clinical teaching & evaluation if student's total score was ≥ 70% and unsatisfied if total score was < 70%. It took 15 minutes to be filled by students. Cronbach's alpha coefficient was 0.97.

Validity and Reliability of the Tools:
Tools were reviewed by a panel of 5 experts in obstetric and gynecological nursing field to test the face and content validity. Each of the experts was asked to examine tools for content coverage, clarity, wording, length, format, and overall appearance. Modifications were done according to the comments "rephrasing and cancelling for two questions". Reliability: Alpha Chronbach test was used to measure the internal consistency of the tools used in the current study.

Administrative approval and Ethical Considerations:
The approval was obtained from the scientific research ethical committee at Faculty of Nursing Ain Shams University before conducting the study. An official approval was obtained from the Dean of the Faculty of Nursing Ain Shams University. The aim of the study was explained to each student and informed consent to participate was obtained. The students were given an opportunity to refuse participation and they could withdraw at any stage of the research. Additionally, they were assured that the information would be confidential and used for the research purpose only without any effect on the students current or future academic course assessment

Pilot Study
It was conducted on 10% of the study sample (20) 3rd year maternity nursing students. It was conducted to evaluate the efficiency and content validity of the tools to find the possible obstacles and problems that might be faced during data collection. Students included in the pilot study were excluded from the sample to avoid contamination of research sample.

Field work
Data collection for this study was carried out in the period of second semester at academic year 2015-2016 for control group, and first semester of academic year 2016-2017 for intervention group. Researchers first explained the aim of the study to the participants and reassure students that information collected would be treated confidentiality and that would be used only for the purpose of the research without implication for their course grade. Implementation phase was divided into three phases; assessment, implementation and evaluation phase for control and intervention groups
Assessment phase: was conducted to both groups at the beginning of each semester. Researchers met students of each group and explained the purpose of the study then obtained their approval to participate on the study. Students’ were instructed to fill self-administrative questionnaire (first part), nursing competency self-efficacy scale and undergraduate nursing students’ academic satisfaction scale before the starting of their clinical training.

Implementation phase:

a. Control group (traditional assessment)

- Students in the control group in the 2nd semester of academic year 2015-2016 were assigned randomly into four groups each group consisted of 22-25 students based on their clinical training rotation at antenatal clinical area at Ain Shams Maternity University Hospital. Those students were evaluated by traditional clinical assessment tool (check list) throughout period of clinical training at hospital (formative evaluation “first trial”) and at summative evaluation (second trial).

- Traditional clinical assessment tool was adapted from Eymard, Lyons, and Davis; (2012). It consisted of four check list. Each check list had three options for evaluation (unsatisfactory = scored as one, satisfactory = scored as two, and not applicable= scored as zero). Student's considered achieving objectives of the clinical course if students' total score more than 60% of total score.

b. Intervention group (rubric assessment)

- Researchers prepared the modified copy of rubric assessment tool that adapted from Curran et al; (2011). It consisted of 27 item each item had 4-points scale (minimal, developing, competent, and mastery) each of which include description criteria. It cover 5 dimensions which are (Communication, Collaboration with other specialty, Roles and responsibilities, Collaborative patient-family centered approach, and Team functioning). Total score ranged between 27- 108. Student’s considered achieving objectives of the clinical course if students’ total score more than 60% of total score.

- An orientation session was conducted by researchers for students at the beginning of the semester that aimed at explaining rubric assessment tool, and how it use for assessing their clinical performance throughout the semester and at end of semester.

- Students' provided with copy of rubric assessment by researchers during clinical orientation.

- Students were given time to review rubric and were encouraged to ask questions.

- Researchers presented 3 educational video for antenatal assessment and applied rubric rating scale for each one with clarification for rating score for each one to students.

- Students’ clinical performance was assessed by researchers at the clinical area through rubric (formative evaluation “first trial”).

- Researchers provide each student with feedback regarding clinical performance throughout time of clinical training at antenatal clinical area.

- Students instructed that this feedback must consider either for keeping mastery level of clinical performance or for improving any clinical skills if it required.

- Students’ clinical performance was assessed by researchers at the end of the semester through rubric (summative evaluation “second trial”).

Evaluation phase: it was conducted to both groups (control and intervention) at second trial. Students’ were instructed to fill nursing competency self-efficacy scale and undergraduate nursing students’ academic satisfaction scale after finishing of their clinical training. In addition, comparison between students’ clinical grades (formative and summative) on both group were done to investigate research hypothesis.

Statistical analysis:

The data were analyzed using SPSS version 20.0. The ANOVA and χ2 tests were employed to compare quantitative and qualitative variables between the groups.
III. RESULTS

Table (1): Distribution of the studied students in both groups according to their socio demographic characteristics

<table>
<thead>
<tr>
<th>Items</th>
<th>Control group Traditional assessment (n=104)</th>
<th>Intervention group Rubric assessment (n=102)</th>
<th>$X^2$</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No %</td>
<td>No %</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>71 68.3%</td>
<td>72 70.6%</td>
<td>1.82</td>
<td>0.73</td>
</tr>
<tr>
<td>Male</td>
<td>33 31.7%</td>
<td>30 29.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Residence</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>16 15.4%</td>
<td>15 14.7%</td>
<td>1.96</td>
<td>0.61</td>
</tr>
<tr>
<td>Urban</td>
<td>88 84.6%</td>
<td>87 85.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Educational Background</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary school</td>
<td>82 78.8%</td>
<td>82 80.4%</td>
<td>1.79</td>
<td>0.86</td>
</tr>
<tr>
<td>Technical Nursing institute</td>
<td>22 21.2%</td>
<td>20 19.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age in years (Mean ± SD)</strong></td>
<td>20.8 ± 0.74</td>
<td>20.7 ± 0.81</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table (1) shows that 68.3% and 70.6% of the studied students in both groups are female students. Concerning place of residence, 84.6% of students in control group raise in urban area versus 85.3% of the students in intervention group. Regarding educational background 78.8% and 80.4% of the studied students in both groups have secondary education. In addition the table clarify that no statistical significant difference between both groups regarding their socio demographic characteristics.

Table (2): Comparison of the studied students in both groups according to their self-efficacy

<table>
<thead>
<tr>
<th>Items</th>
<th>Control group Traditional assessment (n=104)</th>
<th>Intervention group Rubric assessment (n=102)</th>
<th>$X^2$</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No %</td>
<td>No %</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>First Trial</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor self-efficacy</td>
<td>88.5%</td>
<td>87.3%</td>
<td>2.21</td>
<td>0.07</td>
</tr>
<tr>
<td>Good self-efficacy</td>
<td>11.5%</td>
<td>12.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High self-efficacy</td>
<td>0.0%</td>
<td>0.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Second Trial</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor self-efficacy</td>
<td>67.3%</td>
<td>0.0%</td>
<td>13.05</td>
<td>0.001**</td>
</tr>
<tr>
<td>Good self-efficacy</td>
<td>30.8%</td>
<td>17.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High self-efficacy</td>
<td>1.9%</td>
<td>82.4%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table (2) reveals that there is no statistical significant difference between control group and intervention group regarding their self-efficacy at first trial. While, there is a highly statistical significant difference between control group and intervention group regarding their self-efficacy at second trial.

Table (3): Comparison of the studied students in both groups according to students' satisfaction

<table>
<thead>
<tr>
<th>Items</th>
<th>Control group Traditional assessment (n=104)</th>
<th>Intervention group Rubric assessment (n=102)</th>
<th>$X^2$</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No %</td>
<td>No %</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>First Trial</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfactory</td>
<td>14.4%</td>
<td>13.7%</td>
<td>1.86</td>
<td>0.83</td>
</tr>
<tr>
<td>Unsatisfactory</td>
<td>85.6%</td>
<td>84.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Second Trial</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfactory</td>
<td>71.2%</td>
<td>98.0%</td>
<td>12.62</td>
<td>0.003**</td>
</tr>
<tr>
<td>Unsatisfactory</td>
<td>28.8%</td>
<td>2.0%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table (3) indicates that there is no statistical significant difference between control group and intervention group regarding their students' satisfaction at first trial. While, there is a highly statistical significant difference between control group and intervention group regarding their students' satisfaction at second trial.

Table (4): Comparison between students of both groups as regard their Self-efficacy and Satisfaction.

<table>
<thead>
<tr>
<th>Items</th>
<th>First Trial</th>
<th>Second Trial</th>
<th>F test</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Self-efficacy Score</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intervention group</td>
<td>30.74 ± 6.72</td>
<td>72.33 ± 6.74</td>
<td>24.59</td>
<td>0.001**</td>
</tr>
<tr>
<td>Control group</td>
<td>20.82 ± 4.77</td>
<td>22.31 ±4.42</td>
<td>2.832</td>
<td>0.076</td>
</tr>
<tr>
<td><strong>Total Satisfaction Score</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intervention group</td>
<td>27.02 ± 4.16</td>
<td>68.81 ± 4.66</td>
<td>18.33</td>
<td>0.001**</td>
</tr>
<tr>
<td>Control group</td>
<td>26.52 ± 2.76</td>
<td>28.52 ± 2.76</td>
<td>2.832</td>
<td>0.076</td>
</tr>
</tbody>
</table>

** Highly statistical significant.

Table (4): reveals that there is a highly statistical significant improvement on total score of self-efficacy and satisfaction scale after using of rubric assessment among students in the intervention group. Meanwhile the improvement of self-efficacy and satisfaction scale among students in the control group is insignificant.

Figure (1): Comparison between control and intervention group regarding their clinical achievement score in formative and summative assessment

@ $X^2=11.985 P=0.001^*$

$X^2=11.985 P=0.001^*$

$ Control group versus intervention group (formative assessment)$

@ Control group versus intervention group (summative assessment)

Figure (1) shows that there is a highly statistical significant difference between control group and intervention group regarding their clinical achievement score in formative and summative assessment.

Table (5) Distribution of the studied students according to their view of point on clinical assessment tool

<table>
<thead>
<tr>
<th>Items</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rubric assessment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strengths points of Rubric assessment @</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Objectivity of clinical assessment</td>
<td>98</td>
<td>96.1</td>
</tr>
<tr>
<td>• Increase self-esteem</td>
<td>70</td>
<td>68.6</td>
</tr>
<tr>
<td>• Students understand their role and responsibilities</td>
<td>85</td>
<td>83.3</td>
</tr>
</tbody>
</table>
Table (5) indicates that 96.1%, 83.3%, and 78.4% of the studied students on the intervention group reported that strengths of rubric assessment are objectivity of clinical assessment, students understand their role and responsibilities and specific, effective individualized quick feedback. While, 41.5% of the studied students on the control group reported that strength of traditional assessment is proper orientation by students. Concerning weak points of clinical assessment 31.4% of the studied students on the intervention reported that weakness of rubric assessment is students’ stress to adapt to new methods assessment. Meanwhile, 94.2%, and 92.3% of the studied students on the control group reported that weakness of traditional clinical assessment are Subjectivity of clinical assessment, and Limited time for questions or feedback. As regard students’ recommendation 98.0% of the studied students on the intervention recommend application of rubric clinical assessment in all academic level. While, 84.6% of the studied students on the control group recommend integration between traditional assessment and other clinical assessment method.

IV. DISCUSSION

Clinical practice with appropriate assessment tool is an important part of the nursing students’ education process. The purpose of assessment is to describe students' nurse ability to perform the required skills based on job description that is fitness to practice. Therefore, carefully prepared evaluation forms make the assessment more objective and clear (Helminen et al, 2015). Moreover, application of new methods of assessment is necessary due to significant improvement in clinical teaching methods. In the meantime, new assessment approaches that simultaneously enforce learning have been greeted more than other methods (Habibi et al, 2013). Therefore, researchers conducted this study to evaluate the effect of rubric versus traditional clinical assessment on maternity nursing student's self-efficacy and satisfaction.

The current study displayed that more than two thirds of studied sample in both groups were female students. Concerning marital status the present study indicated that the majority of studied sample of control and intervention groups were single. In addition regarding place of residence majority of students in both groups came from urban area. Moreover, regarding educational background most of the studied students in both groups have secondary education. Finally both groups shared in the same age, the findings showed homogeneous of studied sample and there is no statistical significant difference between both groups regarding their socio demographic characteristics. This finding was in agreement with Habibi et al; (2013) who carried out a randomized clinical trial to compare the effect of applying direct observation procedural skills and routine evaluation method on clinical skills of nursing students and noticed that no significant difference was observed between two groups in terms of demographic variables (p=> 0.05).

Concerning students’ self-efficacy the current study pointed out that there is no statistical significant difference between control group and intervention group regarding their self-efficacy at first trial. While, there is a highly statistical significant difference between control group and intervention group regarding their self-efficacy at second trial. This finding was in accordance with Rezayat, and Nayeri; (2013) who conducted a case control study to evaluate and compare self-efficacy in two groups of nursing students of Tehran University of Medical Sciences. One group of students was trained on life skill programs, and the second group was not trained on the issue and reported that 23% and 8% of the students on untrained and trained groups had very high self-efficacy respectively. The overall mean scores of self-efficacy were 41.99 ± 9.31 and 38.99 ± 10.48 in the trained and untrained groups, respectively (P = 0.015).
The present study finding was on the same line with karabacak, et al; (2013) who carried out a descriptive study to determine the general self-efficacy levels of students studying for undergraduate degree in nursing and to examine the relationship between skills development and self-efficacy. They found that a significant difference was observed in terms of students’ general self-efficacy levels before and after the skills training (t = 7.191, P < 0.05). The cause of consistency of this result with the present study could be rubric assessment was more supported to students through significant feedback that reflected upon their higher self-efficacy.

Regarding students’ satisfaction the current study indicated that 85.6% and 84.3% of the studied students in control and intervention groups were unsatisfied with their clinical assessment tools at first trial with no statistical significant difference between control group and intervention group. While, 71.2% and 98.0% of the studied students in control and intervention groups were satisfied with their clinical assessment tools at second trial with a highly statistical significant difference between control group and intervention group. This finding was congruent with Hakim (2014) who performed a cross section study to evaluate the nursing students’ satisfaction about their field of study and found that 33.3% of the participants in this research were dissatisfied with the method of evaluation by clinical trainers and 50% with the method of nursing management. This could be explained by students’ levels of performance, and achieved activities can affect their viewpoints about their clinical assessment tool which in turn create motivation and promote more satisfactory levels.

Concerning, comparison of total self-efficacy and academic satisfaction score for both groups. The result of the current study reveals that there is a highly statistical significant improvement on total score of self-efficacy scale after using of rubric assessment among students in the intervention group. This finding was consists with Nørgaard et al; (2013) who perform a quasi-experimental study to assess the impact of an interprofessional collaborator assessment rubric on students’ perceived self-efficacy and mentioned that there were no statistically significant differences in mean self-efficacy scores for the two groups at baseline. Mean scores on all self-efficacy questions increased significantly for the students in the intervention group after completion of clinical training (immediately after training), and these scores were maintained at the end of the students’ clinical training.

Relating to nursing students’ clinical achievement score the result of the present study showed that there is a highly statistical significant difference between control group and intervention group regarding their clinical achievement score this goes in the line with Gantt, 2010 who perform a pilot study using the Clark simulation evaluation rubric with undergraduate nursing students of different level from two type of program and reported that 77%, 65% of the students achieved satisfactory grade on prenatal and intra-partum scenarios respectively. This could be explained by rubric assessment enhance students self-efficacy that reflected upon students motivation to challenge themselves with hard tasks to achieve their personal goals. On the other hand, students with poor self-efficacy have minimum objective which may result in poor academic performances and achievement.

Concerning students’ view of point on rubric assessment the result of the present study pointed out that majority of the studied students on the intervention group reported that objectivity of clinical assessment, students understand their role and responsibilities and specific, effective individualized quick feedback were strengths of rubric assessment. This finding was in accordance with Wu, Heng, and Wang; (2015) who conducted an exploratory qualitative approach using focus-group discussions and an open-ended survey to explore nursing students' experiences and learning outcomes with the use of an authentic assessment rubric and a case approach. They mentioned that nursing students noted that an authentic assessment rubric with a case approach provided clarity for their learning goals; built confidence; skill competencies and critical thinking skills; increased awareness of role and responsibilities; and enriched and extended learning through effective feedback.

As regard students' view of point on traditional clinical assessment the result of the present study revealed that majority of students' mentioned that subjectivity of clinical assessment and limited time for questions or feedback were weakness of traditional clinical assessment. This finding was in the same line with Vaismoradi and Parsa-Yekta; (2011) who carried out a descriptive study to explore the comprehension and experiences of Iranian nursing students regarding evaluation process in both classroom and clinical setting and found that a gap between what Iranian nursing students depicted as a fair and unbiased evaluation and what they experienced during their academic career.

Also, this study finding was supported by Sadeghi and Bagheri; (2017) who conducted a descriptive study to explore the experiences and views of nursing students about the challenges of traditional clinical evaluation and mentioned that personal preferences, unfairness, and shirking responsibilities were the challenges that were proposed by students in
traditional evaluation method. Furthermore, a descriptive study carried out by Roohi, and Salehi; (2017) to achieve a perspective of realities from viewpoint of nursing students during their internship and clerkship. Also, reported that evaluation outcome obtained the lowest score for quality. The most frequent item was related to the lack of accurate objective criteria, in addition to equality, stability and fairness are often ignored in clinical evaluation. Finally, rubric is not a static assessment tool but a tool that is continually evolving and enhancing learning process.

V. CONCLUSION

The result of this study concluded that rubric assessment has positive effect on maternity nursing students' self-efficacy, and satisfaction than traditional clinical assessment. Moreover, student's clinical achievements score were statistically higher among intervention group than control group. Furthermore, students' self-efficacy and satisfaction was higher among rubric assessment group than traditional clinical assessment with statistical significant difference.

VI. RECOMMENDATION

In the light of the study findings, the researchers recommend that:

- Application of rubric assessment as an integral part of undergraduate nursing students' clinical evaluation system.
- Further research still needed to evaluate the effect of inter-professional collaborate rubric assessment on postgraduate nursing students' clinical performance.

REFERENCES


