Impact of Instructor Versus Student Facilitator Debriefing Following Clinical Simulation Sessions on Nursing students' Self-Efficacy, Satisfaction, and Achievement.

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Abstract:

Debriefing is an effective educational tool commonly used with adult learning following simulated session. A comparative interventional design was utilized to compare the impact of instructor versus student facilitator debriefing following clinical simulation sessions on nursing students' self-efficacy, satisfaction, and achievement. A convenience sample of 151 nursing students enrolled in community nursing and obstetrics and gynecological nursing courses according to the curriculum plan in the Faculty of Nursing at Alexandria University, Egypt participated in the study. Students went through a debriefing process by both instructor and students during two simulation sessions. General perceived self-efficacy scale, satisfaction with simulation experience scale and students' achievement records were used for data collection. Results revealed no statistically significant difference between the effect of debriefing done by instructors or students on their perceived self-efficacy, satisfaction with simulation experience and their clinical performance among neither obstetrics nor community nursing groups during first as well as second simulation sessions. The study concluded that the role of both instructor and student facilitator should be considered in a debriefing following nursing simulation experience and their active contribution to the learning process. Further researches are recommended to investigate the potential for using the self-debriefing method to enhance the efficiency of simulation-based education.

Keywords: Debriefing, facilitator, Self-efficacy, Satisfaction, Simulation.

INTRODUCTION

Simulation is an innovative manner to offer experiential learning through a constructive framework in a safe, clinically relevant environment [1]. It offers students an opportunity to solve problems while practicing clinical reasoning and judgment skills without putting patients at any risk [2]. An essential component of the simulation is the feedback from the learners about their clinical performance, which frequently includes the main components of debriefing [3].

Debriefing is an educational tool used with adult learning after they have taken part in a simulated session [4].It is defined as an "a facilitated conversation after such things as critical events and simulations in which participants analyze their actions, thought processes, emotional states, and other information to improve performance in future situations" [5].

Nurse educators strive to develop a nurse's clinical reasoning skills and promote the transfer of knowledge to the clinical setting whereby students and teachers assess the clinical situation and stimulate the development of critical judgment through reflective learning. It is an opportunity for students to reflect on their performance during the simulation and determine how they might perform differently in future practices. It also offers students a reality check or a way to see themselves through the eyes of the teacher or their peers, something which participants (both learners and teachers) value and seek [6, 7].

Debriefing session could be conducted any time after the simulation experience; it is recommended that it occur immediately after the experience in order to avoid distortion of feelings, thoughts or memories over time. Identification of mistakes and discussions of alternative approaches may assist participants in realizing the difference between their performance and the objectives of the simulation learning experience [5]. Debriefing can be conducted a number of ways such as oral discussions, written responses and descriptions, journaling, and discussion boards. Whether the facilitator selects one format or a combination of formats, there are a variety of available configurations. When it comes to the method of best practice within the nursing discipline, there is no consensus [5].

The success of debriefing for learning depends on the facilitator's role; it requires training in applicable debriefing techniques. Key requirements include a teaching plan, attention to the physical environment, setting the mood for the learner, managing the dialogue, and implementing a succinct summary and closure. A learner's reflection on their actions is key to their learning experience, being guided by the facilitator [8].

Facilitating debriefing differs from teaching in that "facilitators aim to guide and direct rather than to lecture" [5]. Debriefing is conducted by a competent nursing facilitator who optimizes learning opportunities focused on simulation learning. The content and method should suit the learner's context, and the timing of the debrief needs to be planned. Creating a safe environment for debriefing where learners can engage with professional practice challenges without feeling intimidated is as important as the simulation [6].

The facilitator must provide a non-threatening, safe environment where the participant feels secure to ask questions, express concerns and learn from mistakes without fear of embarrassment, reprisal or damage to self-worth. An aspect of participation in the simulation is the vulnerability experienced by participants. The participants in a simulation are expected to act like themselves and are not asked to play a role. The facilitator must be constantly observant and respectful of the vulnerability and must provide an environment which is favorable to freedom of expression and license to make mistakes [6].

Nursing instructors acting as facilitators must consider levels of facilitation: *high* level of facilitation described as a low-level of facilitator involvement, leaving the process of debriefing and associated scripts for change to the participants who are guided only when necessary. This group-directed facilitation approach uses open-ended questions and time for reflection rather than stating facts about performance. *Intermediate* facilitation involves giving assistance to the participants when further analysis of their experience would benefit their learning, such as rephrasing their words for better understanding or using effective questioning techniques to elicit reflective responses. *Low* levels of facilitation require explicit facilitator involvement as instructors guide the debriefing process through all of its stages and assist participants to reflect. The facilitator can be faculty or a student depending on the situations and the level of facilitation needed. The skill of the facilitator in being able to choose or modify the correct

level of facilitation for a group or individual is important for the effectiveness of debriefing as a learning opportunity[3,9].

Debriefing, as a teaching strategy, improve students' affective domain of learning while facilitating the use of therapeutic communication skills, address students' emotions, and affirm feelings, improving the affective domain of learning [6, 10]. It is rather than feedback on student performance but a two-way communication process between student and instructor that require a closer relationship between colleagues, with a critical-reflective spirit and instructor-student interaction in a relaxed and safe environment, providing more self-confidence enabling student to have performance clarification and build up strategies that enhance future clinical practices and performance [6, 8].

Despite the importance of debriefing as a critical component of simulation-based education in nursing, studies on debriefing are scarce. Various debriefing models and methods exist, resulting in differences in the application of this teaching strategy [11]. There is concern among nursing educators that these differences in debriefing methods can directly affect a learner's psychological safety, the attainment of learning outcomes through the development of sound clinical reasoning, and satisfaction with learning, thus this study was designed to compare the impact of instructor versus student facilitator debriefing following clinical simulation sessions on nursing students' self-efficacy, satisfaction, and achievement.

Material and Methods:

The aim of the study:

This study aimed to compare the impact of instructor versus student facilitator debriefing following clinical simulation sessions on nursing students' self-efficacy, satisfaction, and achievement.

Research Hypothesis:

There is a significant difference in students' self-efficacy, satisfaction, and achievement between nursing students when exposed to instructor versus student debriefing facilitator following clinical simulation sessions.

Null Hypothesis:

There is no significant difference in students' self-efficacy, satisfaction, and achievement between nursing students when exposed to instructor versus student debriefing facilitator following clinical simulation sessions.

Research design:

A comparative interventional design was utilized to fulfill the aim of the study.

Setting:

The study was conducted in different clinical settings including clinical simulation nursing laboratories in the Faculty of Nursing at Alexandria University, Egypt. The curriculum plan in the faculty of nursing follows the credit hours system in eight semesters. It includes several clinical courses.

Subjects:

The sample size was calculated by Epi-info 7 to determine the minimum sample size necessary to obtain adequate power for the study. Using a confidence level of 95% and a 5% margin of error, it was determined that a minimum is 138 subjects.
A convenience sample of 151 undergraduate nursing students enrolled in the community nursing course (76) and the obstetrics and gynecological nursing course (75) were invited to participate in the research. All the student's nurses agreed to participate in the study.

Tools of the study:

Three tools were used to collect the needed data. The first tool was designed to collect necessary data about student academic year, course, total grade in the clinical sessions.

The second tool named: The General Perceived Self-Efficacy Scale (GSE) which consists of 10 items assessing the strength of an individual's beliefs in his/her ability to respond to and control environmental demands and challenges [12, 13]. The ten items have been adapted into 28 languages by bi-lingual native speakers on the basis of the German and English versions. The GSE has been used in a large number of research projects, in which it typically yielded internal alpha consistencies of between .75 and .91. The scale is not only parsimonious and reliable but has also been shown to have convergent and discriminant validity. The total 10-item score theoretically ranges from 10 to 40 because of the 1-4 response format.

The third tool was The Satisfaction with Simulation Experience Scale (SSE) which is a recently developed quantitative scale by Levett Jones, Mc Coy et al[14]

The SSE consists of three sub-scales: Debriefing and Reflection (D&R), Clinical Reasoning (CR) and Clinical Learning (CL). The D&R subscale measures the students' perceptions of reflection on their feelings and actions taken during the simulation and development of motor, affective, and cognitive skills. The CR subscale measures the students' perceptions of cognitive skills development, and the CL subscale measures their perceptions of development and transferability of learned skills including psychomotor, cognitive and affective to clinical settings. In this study, we are concerned with the first subscale named Debriefing and Reflection with 1-5 response (Strongly disagree – Strongly agree) The mean score for SSE items (calculated by dividing the overall score by total number of items)

Methodology:

The students were engaged in two simulation sessions in each course. For the maternity course delivered in the third year of the nursing curriculum, the two simulation sessions named: "Placental Examination" and "Timing of uterine contraction". Regarding the community course, delivered in the fourth year, the two simulation sessions were: administration of vaccination and antenatal education.

Following each session, a debriefing session was conducted after each simulation. Each group of students in both courses was divided into two subgroups: one subgroup had a

debriefing session conducted by the course instructors, while the other group had the session facilitated by one student previously trained by the researchers.

The course instructors were trained in a special workshop regarding debriefing, and the students were oriented on how to conduct this session, and a pre-prepared guideline and debriefing questions were handed to all the facilitators.

The debriefing questions for the three debriefing methods were based on the 3D Model of Debriefing: Defusing, Discovery, and Deepening. This model is based on Kolb's experiential learning theory, adult learning principles, and the learning outcome model[15]

Ethical consideration:

The official agreement was obtained from the faculty authority. Participants received information about the study and provided written consent. Before the beginning of debriefing, participants were assured that their performance would not affect their scores and the main purpose was research.

Data analysis:

The data were statistically analyzed using SPSS 22 (SPSS Inc., Chicago, IL, USA). Paired t-tests and independent t-tests were used to compare mean differences within groups and between groups, respectively. The equivalent nonparametric tests were used for non normally distributed data. A statistical significance level of 0.05 was considered.

Operational definitions:

Self-Efficacy: "The belief in one's competence to cope with a broad range of stressful or challenging demands, whereas specific self-efficacy is constrained to a particular task at hand".

Satisfaction: A common operational definition of satisfaction is the association of student needs and expectation and the perceived ability of the institution to fulfill these needs or expectations.
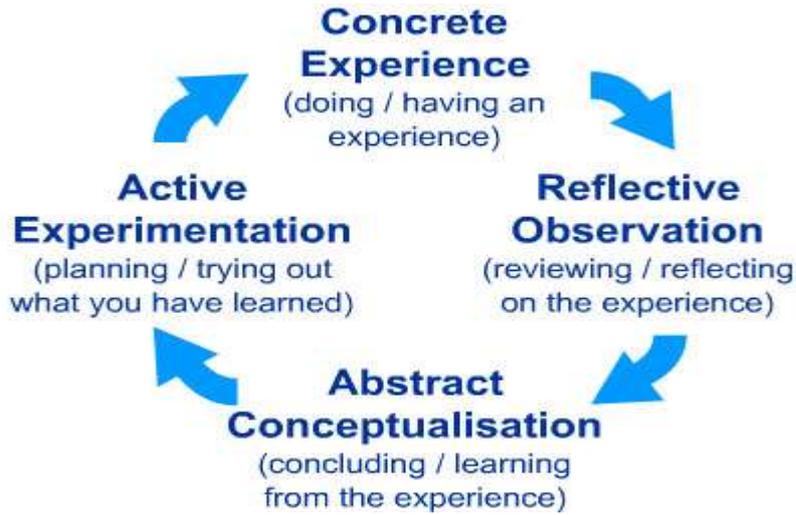
Theoretical framework:

The 3D Model of Debriefing, based on Kolb's (1984) principles in experiential learning, adult learning principles, and the Learning Outcome Model served as the study's theoretical framework. Conceptual definitions of defusing, discovery, and deepening informed the debrief question guide. The model supports a psychologically safe environment to move the learner from expressing their feelings regarding the experience of reflecting on the experience and making connections from the experience that can be applied to future clinical practice environments.

Defusing is the first phase of the 3D Model. It involves discussions of how the simulation impacted learners emotionally and recaps how events unfolded.
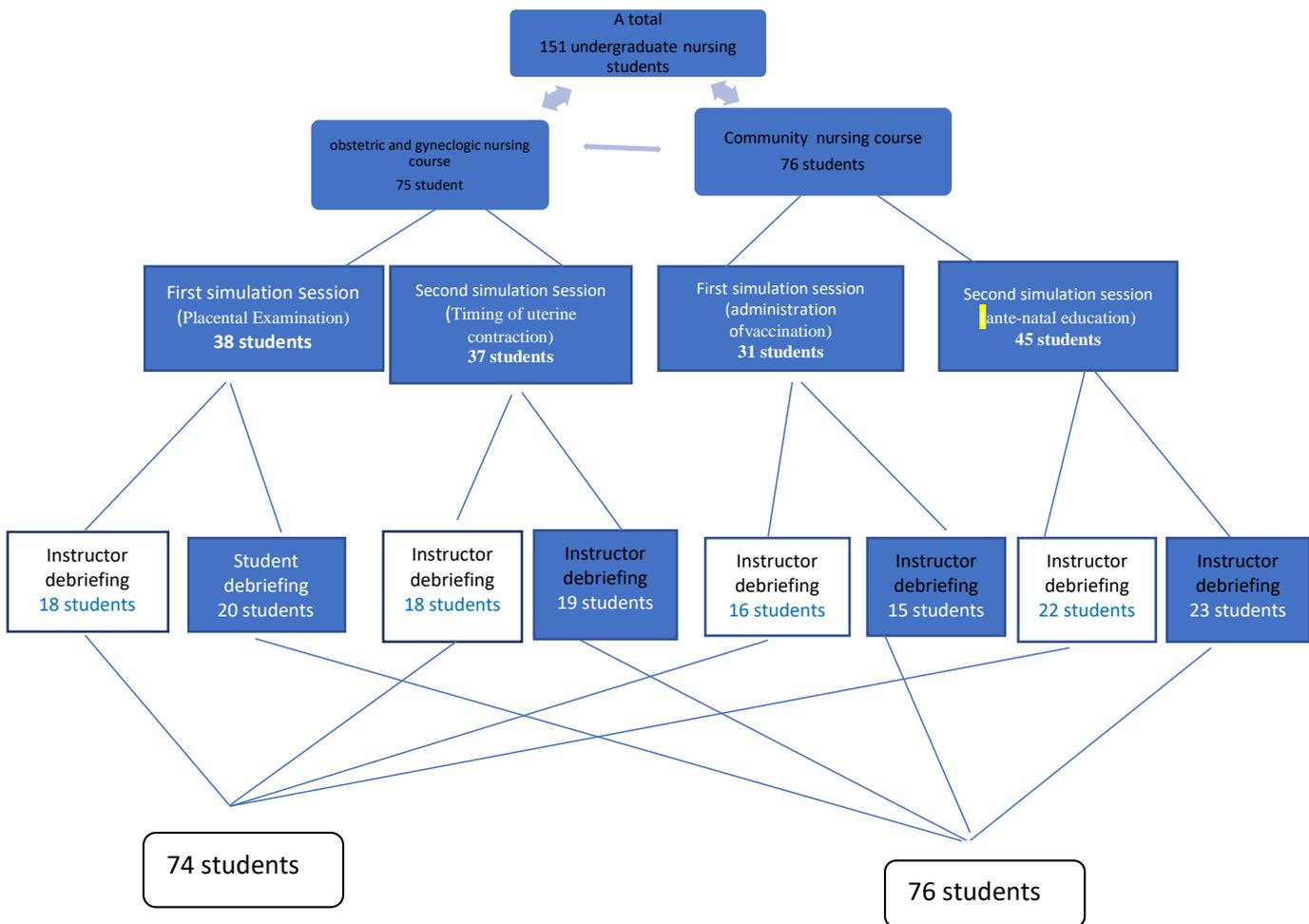Discovering, the second phase of the 3D Model, involves learners' observation and analysis of their performance, with the identification of mental models and rationales for their behaviors during simulation.
Deepening, the third phase of the 3D Model highlights the cognitive learning that occurs as students begin to connect new mental models of learning to their future clinical practice [15].

Kolb's Experiential Learning Theory cycle

Flow chart of the study :

Results:

Table (1) reveals th**e** distribution of undergraduate students enrolled in community nursing and obstetric and gynecologic nursing courses through debriefing methods (instructor versus student) following two nursing simulation sessions. A total of seventy-five students enrolled in the obstetric and gynecologic nursing course were divided into two main groups through two different nursing simulation sessions. One group [36 students (48.0%)] had debriefing sessions facilitated by course instructor while the other group [39 students (52.0%)] had debriefing facilitated by the trained student. First simulation session about placental examination was implemented for 38 students who had further subdivision into two subgroups [18 students (47.4%) &20 students (52.6%)] and received debriefing either by the instructor or by trained student correspondingly. Similarly, the second simulation session regarding the timing of uterine contraction was conducted for 37 students and followed by debriefing session by the instructor for approximately half of the students [18 students (48.6%)] and by the trained student for another half of students [19 students (51.4%)]. On the other hand, students enrolled in the community nursing course (76 students) were equally divided into two main groups through the two simulation sessions. Both groups had debriefing sessions facilitated either by the course instructor or a trained student. First simulation session named: administration of vaccination carried out for 31 students and followed by debriefing through course instructor for 16 students (51.6%) and through trained student for the rest of them [15 students (48.4%)]. antenatal education was implemented during the second simulation session for 45 students who subdivided and had debriefing session by course instructor [22 students (48.9%)] and by trained student [23 students (51.1%)].

Generally speaking, table (2) clarifies that there is no statistically significant difference between the impact of debriefing done by instructors or students on both students' perceived self-efficacy and satisfaction with simulation experience among neither obstetric and gynecologic nor community groups during first as well as second simulation sessions, P >.05. Precisely, amongst obstetric and gynecologic students demonstrated placental examination during the first simulation session, the mean perceived self-efficacy for the instructor and student facilitators was 31.17$\pm$ 5.08 and 31.26$\pm$ 5.21 respectively with no statistically significant difference P=.564. Also, the mean and SD of satisfaction with simulation experience were 32.78$\pm$6.084 and 33.10$\pm$1.787 for instructors and students respectively, without any statistical difference P =.185. The same result was illustrated among those students during the second simulation session for the timing of uterine contraction. The effect of debriefing on mean and SD of students' perceived self-efficacy and satisfaction with simulation experience followed by both instructor and student debriefing was 30.56$\pm$4.25 and 30.31$\pm$4.82 as well as 34.00$\pm$4.89 and 33.46$\pm$5.54 in that order without any significant difference, p > .05. The same finding was observed in the community group. Since during the **first session of** administration of vaccination, the mean and SD of perceived self-efficacy among both instructor and student groups were 31.84$\pm$5.55 and 31.50$\pm$4.39 respectively. No statistical differentiation was found between both groups in relation to self-efficacy p=.487.487. As well, the mean and SD of satisfaction with experience were 33.82$\pm$4.18&33.32$\pm$5.77 sequentially. No statistically significant difference was identified between both groups concerning satisfaction with debriefing methods p=.144. Besides, during **the second session of** antenatal education for community participants, the mean for students' self-efficacy and satisfaction with simulation experience were 33.55$\pm$5.75 & 34.47$\pm$5.34 correspondingly, with no statistically significant difference, p=.987 &.964 respectively.

Table (3) clarifies that on statistical significant difference was found between mean total scores of students' satisfaction with simulation experience followed by briefing neither by

instructor nor student where p > .05. However, the most prominent response was "The facilitator made me feel comfortable and at ease during the debriefing" with means of 4.34±.94 for debriefing facilitated by instructors and 4.21±.85regarded students' debriefing. This was followed by such response " The debriefing provided an opportunity to ask questions " with means of 4.15±.84 & 4.09±.88 for debriefing facilitated by instructors versus students respectively with statistical significance differences.

Table (4) elaborates that the mean values of students' perceived self-efficacy after the debriefing process is done by instructors and students were not statistically different, P > .05. the mean values for statements such as; I can always manage to solve difficult problems if I try hard enough, If someone opposes me, I can find means and ways to get what I want and I am certain that I can accomplish my goals were 3.14 ±.75, 3.06±.91, 3.27±.78, 3.19±.86, 3.01±.84 & 3.17±.77 for debriefing done by both instructors and students. Furthermore, Mean± SD regarding replies including; I am confident that I could deal efficiently with unexpected events, thanks to my resourcefulness, I can handle unforeseen situations and I can solve most problems if I invest the necessary effort, mean fractions were 3.14±.71, 3.04±.77, 3.23±.82, 3.10±.87, 3.07±.67 & 3.13±.71 for both groups in that order. On the same line, the students verbalized; I can remain calm when facing difficulties because I can rely on my coping abilities when I am confronted with a problem, I can find several solutions and if I am in trouble, I can think of something to do, with means signified 3.05±.77, 2.99±.679, 3.26±.70, 3.16±.74, 3.18±.69 & 3.31±.80 for debriefing practiced by instructors or students correspondingly

It was noticed from the table (5) that academic achievement of about half of students who had debriefing following nursing simulation session facilitated by either instructor (48.6%) or students (51.9%) ranged between 61-75 %, almost an equal proportions, two fifths (41.9% & 41.6%) of them achieved more than 75% after debriefing conducted by both instructors and trained students sequentially, while a minority of students achieved less than 60% with instructor (9.5%) and students (6.5%) debriefing. No statistically significant difference was calculated among students experienced debriefing through instructors or by trained students P =.779

Discussion:

Debriefing can be a complementary tool for the active participation of students in the clinical Simulation training through utilizing best practices and standards of simulation [16]

The nursing students throughout their curriculum are enrolled in different clinical courses. In each course, several simulation sessions are part of the clinical training usually precede the clinical experience in a hospital or other health care settings. Debriefing is considered as an essential element of each clinical simulation session. The debriefing process can be implemented using different modalities[6].

Although there are several models of debriefing techniques, debriefing is generally considered to be a time for the participant to reflect on the event, discuss it with others, learn, and modify behavior as a result. Debriefing is useful to encourage the students to reflect on their own clinical performance by providing an opportunity to clarify and explain the rationale of each action in the simulation session[2].

The current study investigates the effect of the instructor versus student facilitator in a debriefing following nursing simulation sessions on the students' self-efficacy, satisfaction, and achievement. *The 3D model of Debriefing: Defusing, Discovering and Deepening*, based on Kolb's theory of experiential learning was selected in the planning and implementation of

the study. Experiential learning is used in the clinical setting with real patients and recently used for simulation training in a controlled laboratory atmosphere. The simulation experience often involves several students, a clinical instructor at the bedside (mimicking a real clinical situation) and a simulation trained educator at the controls of the simulator. During this time, certain tasks are expected of the students, as identified by objectives, and critical thinking is anticipated for the particular scenario. Debriefing takes place immediately after the session utilizing guided reflection, in which the instructor allows time for the learner to explore outcomes in relation to objectives as well as to explore optional patient outcomes and critical decision-making choices[15].

Wallace D 2016 study proved that debriefing is an important aspect of simulation which helps enhance critical thinking skills in nursing students and thus should be appropriately addressed in education and research [17]. Debriefing occurs either after (post-event) or during (within-event) the simulation. The debriefing conversation can be guided by either a facilitator (facilitator-guided) or the simulation participants themselves (self-guided) [2].

In a recent review, Loo et al 2018 introduced rapport between facilitators and learners as an important element that can contribute to a conducive learning environment during the debriefing process[18].

Two studies highlighted that self-debriefing provided similar educational outcomes compared with facilitator-led debriefing (Boet et al.,2011; Oikawa et al., 2016). It is unclear what types of debriefing methods are most effective for clinical simulation [19,20].

Another study conducted in 2016 compared instructor-led versus peer-led debriefing in the third year nursing students showed higher debriefing scores, better performance and more satisfaction with debriefing experience compared to the peer-led group. This study suggests that self-debriefing may be equivalent to facilitator-led debriefing in some educational settings[21].

In the current study that there was no statistically significant difference between the effect of debriefing done by instructors or students on their perceived self-efficacy, satisfaction with simulation experience and their clinical performance among neither maternity nor community groups during first as well as second simulation sessions. This result is in accordance with the results of a study conducted in Two universities in South Korea to compare two different debriefing practices: facilitator-debriefing and self-debriefing. In teamwork and personal performance, both groups rated significant increases in scores from pre- to post-test, with no differences between groups[22].

Self-efficacy (SE) is the belief that one is capable of performing a task or a desired action. Self-efficacy is a characteristic that is believed to increase an individual's ability to be successful at a task. Several studies investigated the effect of debriefing in clinical simulation on the student perception of self-efficacy. On a study conducted on 2009 to evaluate the use of simulation to impact the development of clinical self-efficacy in nursing students at a Midwestern liberal arts university findings revealed that there was a significant difference in clinical self-efficacy scores from the pre-test to the post-test for both the experimental and the control groups. The findings also indicated that when the two groups were compared to each other, the experimental group had a higher clinical self-efficacy score, but the difference was not statistically significant. The analysis of the data also revealed that there was no significant difference in clinical self-efficacy scores based on the role that the learner played in the simulation [23].

High reports of simulation effectiveness reflect a positive correlation with high scores of self-efficacy in a study conducted at the University of New Hampshire (UNH) in 2013,

nursing students will spend more hours in the simulation laboratory than a standard clinical rotation[24]. Many students report this experience to be a great source of stress in their nursing education. Little evidence exists surrounding the experience of the student. This study will, therefore, aim to identify and analyze the components that comprise the experience of a student experiencing a high fidelity simulation in nursing. By addressing identifying factors that show a relationship with simulation effectiveness, it may be possible to increase competence and reduce the anxiety of nursing students. The mean reported self-efficacy of the scale was 29.64, with a maximum score of 40. Using the same tool SSE the mean reported self- efficacy in the current study was 31.44± 5.03 in instructor facilitator debriefing, and 30.94± 4.67 in student facilitator.

Student's perceived self-efficacy after the debriefing process is done by instructors and students were not statistically different except when they were asked about managing during trouble. They have a more positive attitude toward their self-efficacy following student debriefing in the following items: confidence in accomplishing their goals and their ability to solve problems by exerting the necessary effort.

A number of studies have reported on the levels of **satisfaction** with simulation experiences with results indicating that overall nursing students tend to be highly satisfied with these types of learning activities irrespective of the type of manikin used[25].

In the present study, the total mean score of student satisfaction was positive either in instructor-facilitator or in student facilitator debriefing. The student was more satisfied with their colleague debriefing in the following aspects: handling whatever comes in their way, The facilitator summarized important issues during the debriefing, and the facilitator provided feedback that helped them to develop clinical reasoning skills. This results could be explained by their feeling that they are more understood by their colleague.

Adults learn best when they are actively engaged; when the learning is problem centered and meaningful to their life situation and when they can immediately apply what they have learned (Fanning and Gaba 2007). Simulation education utilizes these principles by creating replicated real-life scenarios for team practices[26].

A study about the effectiveness of pre-briefing in 2017 concluded that structured pre-briefing can impact nursing student competency performance[27]. In another study, which aimed to compare two debriefing methods: traditional method and Debriefing for Meaningful Learning DML, results revealed no statistically significant differences between unit-examination scores based on the method of debriefing received [28].

The educational literature suggests that debriefing may assist a low performing student by allowing revision and thereby improve performance, rather than benefiting more proficient students[29] . Nevertheless, Draycott et al (2008) argue that one reason formative feedback assists learning development is that it avoids high anxiety levels of students created by more formal summative feedback or examinations [30].

In the current study, no statistically significant difference was calculated among students experienced debriefing through instructors or by themselves and their scores

The results of a qualitative study conducted in Portugal confirmed that debriefing is considered to be stimulating, and reflective, allowing for knowledge consolidation and systematization, as well as an individual and collective reflection with structured thinking. In a safe environment, this method encourages students not to be afraid of giving their opinion, reflect on their interventions, and change their behaviors. It facilitates communication among participants and the transition from theory to practice and from practice to theory. In addition,

SD promotes constructive criticism. This study showed that SD has a positive impact on students. The authors believe that the use of this method will contribute to improvement in nursing education and nursing care and, consequently, increased health gains [6].

The current study targeted third and fourth-year students who had taken simulation education courses and showed that the debriefing either conducted by their instructor or facilitated by their colleagues was beneficial in empowering them with self-efficacy and good clinical achievement and these group of students were nearly equally satisfied by the two approaches.

Finally, The simulation is considered one of the most effective educational methods in different fields as aviation, military, and health care. Nursing has taken the next step by including simulation training to augment actual human interaction. Best practices and standards, which are created by methods established to be trustworthy and reproducible, are utilized.

Conclusion:

It is widely accepted that debriefing is the "heart and soul" but there remains minimal evidence on how to debrief, which methods are effective at achieving learning outcomes and which are best at fulfilling a student's self-efficacy, satisfaction. The present study accepted the null Hypothesis where results approved no significant difference in students' self-efficacy, satisfaction, and achievement between nursing students when exposed to instructor versus student debriefing facilitator following clinical simulation sessions. Faculty should begin to consider role of both instructor and student facilitator in debriefing following nursing simulation experience and their active contribution to the learning process where facilitators aim to guide and direct rather than to lecture and their role in debriefing is expanded from the traditional passive role to one where the skills demanded of them are the ability to critically analyze one's own performance.

Recommendations:

Based on the findings of the study the following recommendations are suggested:

- The inclusion of debriefing training in the orientation of nursing educators, In-service training workshops can be conducted to update the nursing staff with the debriefing models and its application in the nursing simulation.
- Involvement of students in self-debriefing sessions after nursing simulation after giving them an overview of the importance of debriefing
- further research to investigate the potential for the self-debriefing method to enhance the simulation-based education.

Table 1: Distribution of undergraduate students enrolled in community nursing and obstetric nursing courses through debriefing methods (instructor versus student) following two nursing simulation sessions

Simulation session	Debriefing method						Total
	Obstetric and gynecologic nursing course		Total	Community nursing course			
	Instructor	Student		Instructor	Student		
First	18 (47.4%)	20 (52.6%)	38 (100%)	16 (51.6%)	15 (48.4%)	31 (100%)	
Second	18 (48.6%)	19 (51.4%)	37 (100%)	22 48.9%	23 51.1%	45 (100%)	
Total	36 (48.0%)	39 (52.0%)	75 (100%)	38 (50.0%)	38 (50.0%)	76 (100%)	

Table (2): Distribution of the students according to the impact of debriefing method (instructor versus student) on their mean perceived self-efficacy and satisfaction with simulation experience.

Course	Simulation session	Items impact	Debriefing method				Significance	
			Instructor N=36		Student N=39			
			Mean	SD	Mean	SD	F	sig
Obstetric and gynecologic nursing	First "Placental Examination "	Perceived Self-Efficacy	31.17	5.08	31.26	5.21	.336	.564
		Satisfaction with simulation experience	32.78	6.084	33.10	4.71	1.787	.185
	Second "Timing of uterine contraction"	Perceived Self-Efficacy	30.56	4.25	30.31	4.82	.379	.540
		Satisfaction with simulation experience	34.00	4.89	33.46	5.54	.194	.661
Community nursing	First Administration of vaccination		Instructor N=38		Student N=38		F	sig
			Mean	SD	Mean	SD		
		Perceived Self-Efficacy	31.84	5.55	31.50	4.39	.488	.487
		Satisfaction with simulation experience	33.82	4.18	33.32	5.77	2.176	.144
	Second Antenatal education	Perceived Self-Efficacy	31.12	4.92	31.76	4.71	.000	.987
		Satisfaction with simulation experience	33.55	5.75	34.47	5.34	.002	.964

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Table (3): Impact of debriefing method (instructor versus student) on students' satisfaction with simulation experience: (debriefing and reflection)

Responses	Debriefing method		Significance (P)
	Instructor N=74	Student N=77	
	Mean± SD	Mean± SD	
I can handle whatever comes my way	3.18±.69	3.22±.82	.096
The facilitator provided constructive criticism during the debriefing	3.66±1.33	3.39±1.36	.379
The facilitator summarized important issues during the debriefing	3.28±1.12	3.47±1.12	.999
I had the opportunity to reflect on and discuss my performance during the debriefing	3.88±1.07	3.84±.96	.627
The debriefing provided an opportunity to ask questions	4.15±.84	4.09±.88	.937
The facilitator provided feedback that helped me to develop my clinical reasoning skills	3.74±.92	3.96±.88	.155
Reflecting on and discussing the simulation enhanced my learning	3.46±1.05	3.45±1.03	.918
The facilitator's questions helped me to learn	3.21±1.24	3.29±1.16	.213
I received feedback during the debriefing that helped me to learn	3.58±.90	3.50±1.11	.033
The facilitator made me feel comfortable and at ease during the debriefing	4.34±.94	4.21±.85	.314
Total mean score	**33.25 ± 5.18**	**33.86± 5.35**	**0.31**

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Table (4): Impact of debriefing method (instructor versus student) on Students' Perceived Self-Efficacy

Responses	Debriefing method		Significance (P)
	Instructor N=74	Student N=77	
	Mean± SD	Mean± SD	
I can always manage to solve difficult problems if I try hard enough.	3.14 ±.75	3.06±.91	.099
If someone opposes me, I can find means and ways to get what I want.	3.27±.78	3.19±.86	.638
I am certain that I can accomplish my goals.	3.01±.84	3.17±.77	.919
I am confident that I could deal efficiently with unexpected events.	3.14±.71	3.04±.77	.643
Thanks to my resourcefulness, I can handle unforeseen situations.	3.23±.82	3.10±.87	.644
I can solve most problems if I invest the necessary effort.	3.07±.67	3.13±.71	.151
I can remain calm when facing difficulties because I can rely on my coping abilities.	3.05±.77	2.99±.679	.120
When I am confronted with a problem, I can find several solutions.	3.26±.70	3.16±.74	.890
If I am in trouble, I can think of something to do.	3.18±.69	3.31±.80	.049
Total mean score	**31.44± 5.03**	**30.94± 4.67**	**0.38**

Table (5): Impact of debriefing method (instructor versus student) on Students' achievement

Results	Debriefing method		Total N=151	Pearson Chi-Square (P)
	Instructor N=74	Student N=77		
Less than 60 %	7 (9.5%)	5 (6.5%)	12 (7.9%)	.500 (.779)
61-75 %	36 (48.6%)	40 (51.9%)	76 (50.3%)	
More than 75%	31 (41.9%)	32 (41.6%)	63 (41.7%)	
Total	**74 (100%)**	**77 (100%)**	**151 (100%)**	

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