A CROSS SECTIONAL DESCRIPTIVE STUDY TO ASSESS THE SATISFACTION OF NURSING STUDENTS REGARDING TEAM-BASED LEARNING IN SCHOOL OF NURSING MADINAH TEACHING HOSPITAL, FAISALABAD

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Abstract:

Background: Team-based learning is emerging as a strategy for enhancing learning in nurse education due to the promotion of individual learning as well as learning in teams. Most studies on the effects of active and passive methods of teaching, have considered learning variable as independent variable and the emphasis is on learning and academic achievement of students, however, less attention has been paid to the effects of active techniques on classroom environment. The aim of this study was to determine the effects of team-based learning techniques on nursing students' knowledge and satisfaction level. This study will provide evidence that team-based learning does have a positive effect on nursing students' knowledge and satisfaction level.

Objective: -To assess the accountability of team- based learning on nursing students.

-To assess the satisfaction level of nursing students towards team based learning.

-To assess the preference in nursing students about TBL.

Methodology: This research was quantitative & cross sectional; structured questionnaire was the tool. The TBL intervention was offered to 50 Post RN (BSN) students of School of Nursing, Madinah Teaching Hospital Faisalabad.

Results: Team-based learning is emerging as a strategy for enhancing learning in nurse education due to the promotion of individual learning as well as learning in teams. Most studies on the effects of active and passive methods of teaching, have considered learning variable as independent variable and the emphasis is on learning and academic achievement of students, however, less attention has been paid to the effects of active techniques on classroom environment.

Conclusion: The TBL is recommended as a highly interactive method for nursing curricula.

Keywords: Team Based Learning, Classroom environment

I.   INTRODUCTION

Team-based learning is a structured type of cooperative learning that is becoming increasingly more popular in nursing education. This study compares levels of nursing students' perception of the psychosocial climate of the classroom between conventional lecture group and team-based learning group.Team-based learning (TBL) is a structured form of small-group learning that emphasizes student preparation out of class and application of knowledge in class. Students are organized strategically into diverse teams

of 5-7 students that work together throughout the class. Before each unit or module of the course, students prepare by reading prior to class. Hrynchak and Batty (2012) provide an excellent analysis of the theoretical basis of team based learning in 2012.They argue that team-based learning incorporates the main elements of constructivist learning, in which the focus is on the mental representation of information by the learner (Jaime *et al.,* 2018).

Team-based learning is consistent with all of these elements. The teacher establishes the learning objectives and chooses the problems on which the students will focus but then acts as a guide while teams work toward their solution to the problem. A careful choice of problems can help reveal common student misconceptions and the constant interaction and debate among team members allows learners to compare their current understandings with those of other team members and to construct new understandings. Group interaction and a focus on relevant problems is an inherent element of team-based learning. Finally, team-based learning provides several opportunities for reflection: during the group readiness assessment test; while hearing other teams' reports of their conclusions; and during the peer evaluation process, which often includes self-evaluation (Reimschisel*et al.,* 2017).

Team-based learning is emerging as a strategy for enhancing learning in nurse education due to the promotion of individual learning as well as learning in teams. Most studies on the effects of active and passive methods of teaching, have considered learning variable as independent variable and the emphasis is on learning and academic achievement of students, however, less attention has been paid to the effects of active techniques on classroom environment. The aim of this study was to determine the effects of team-based learning techniques on nursing students' knowledge and satisfaction level. This study will provide evidence that team-based learning does have a positive effect on nursing students' knowledge and satisfaction level. .

Research Questions

Q1:   Does the team based learning have positive effect on nursing students?

Q2:   Does the team based learning improve the knowledge and satisfaction of nursing students?

Hypothesis of the Study

H1:   Team based learning have a positive effect on nursing students.

H2:   Team based learning improves the knowledge and satisfaction of nursing students.

II.   REVIEW OF LITERATURE

Branney&Priego-Hernández (2018) evaluated the learning skills of nursing students by applying team based learning technique. They used mixed methods to observe the results. In a year two, undergraduate nursing applied pathophysiology module circulatory shock was taught using Team-based Learning while all remaining topics were taught using traditional lectures. After the Team based Learning intervention the students were invited to complete the Team-based Learning Student Assessment Instrument, which measures accountability, preference and satisfaction with Team-based Learning. Students were also invited to focus group discussions to gain a more thorough understanding of their experience with Team-based Learning. Exam scores for answers to

questions based on Team-based Learning-taught material were compared with those from lecture-taught material. They concluded that most students had a preference for, and reported higher accountability and satisfaction with Team based Learning. Through contextualization and teamwork, Team-based Learning appears to be a strategy that confers strong pedagogical benefits for teaching applied pathophysiology (bioscience) to student nurses.

Dearnley*et al.,* (2018) examined the relationship between team based learning and attainment for nursing and midwifery students in professional higher education. To examine the relationship between team based learning and student satisfaction for nurses and midwifery students in higher education. To identify and report examples of good practice in the implementation of team based learning in Nursing and Midwifery higher education. They reviewed a total of sixteen papers were reviewed and four themes emerged for discussion. These were Student Engagement, Student Satisfaction, Attainment and Practice Development and Transformational Teaching and Learning. They found that there was a tentative, though growing body of evidence to support TBL as a strategy that can impact on student engagement, student satisfaction, attainment, practice development and transformative teaching and learning. The literature indicated that implementing TBL within the curriculum is not without challenge and requires a sustained and structured approach. Staff and students need to understand the processes involved, and why they should be adhered to, in the pursuit of enhanced student experiences and outcomes for nurses and midwives in Higher Education.

Oldland*et al.,* (2017) conducted a research to evaluate the postgraduate student perceptions of the role of TBL in shaping learning style, team skills, and professional and clinical behaviours. An exploratory descriptive approach was selected. Critical care students were invited to provide consent for the use for research purposes of written reflections submitted for course work requirements. Reflections of whether and how TBL influenced their learning style, teamwork skills and professional behaviours during classroom learning and clinical practice were analysed for content and themes. Team based learning facilitated a virtuous cycle of feedback encouraging deep learning that increased confidence. Increased confidence improved deep learning that, in turn, led to the development of professional and clinical behaviours characteristic of high quality practice.

Koohestani&Baghcheghi (2016) compared the levels of nursing students' perception of the psychosocial climate of the classroom between conventional lecture group and team-based learning group. In a quasi-experimental study with pretest-posttest design 38 nursing students of second year participated. One half of the 16 sessions of cardiovascular disease nursing course sessions was taught by lectures and the second half with team-based learning. The modified college and university classroom environment inventory (CUCEI) was used to measure the perception of classroom environment. This was completed after the final lecture and TBL sessions. They concluded that their results showed significant differences between the two groups in the innovation ($p<0.001$), student cohesiveness ($p=0.01$), cooperation ($p<0.001$) and equity ($p= 0.03$) sub-scales scores ($p<0.05$). They also provided evidence that team-based learning does have a positive effect on nursing students' perceptions of their psycho-social climate of the classroom.

Della Ratta (2015) applied the team-based learning (TBL) within a flipped classroom setting in an undergraduate nursing course. TBL facilitates active learning through the use of small group, classroom activities. Students used classroom

time to solve problems while developing important professional competencies. A preclass PowerPoint lecture with narration, a component of the flipped classroom, was added to address student feedback. Despite mediocre course evaluations, improved student performance on the final course examination was noted.

Park *et al.,* (2015) examined the effectiveness of team-based learning applied in a health assessment subject, on nursing students' perceived teamwork and academic performance. Team-based learning was applied in a 2-credit health assessment subject over a 16-week semester. The findings showed significant improvements in the mean scores of students' perceived teamwork after the introduction of team-based learning. In addition, team-efficacy was associated with team-adaptability skills and team-interpersonal skills. Regarding academic performance, team readiness assurance tests were significantly higher than individual readiness assurance tests over time. Individual readiness assurance tests were significantly related with examination scores, while team readiness assurance tests were correlated with team-efficacy and team-interpersonal skills. The application of team-based learning in a health assessment subject can enhance students' perceived teamwork and academic performance. They suggested that team-based learning may be an effective learning and teaching strategy for improving teamwork of nursing students, who need to collaborate and effectively communicate with health care providers to improve patients' health.

Roh*et al.,* (2014) conducted a cross sectional, descriptive research to identify the factors influencing satisfaction of nurses with team based learning. Two separate 2 h team-based, learning sessions, consisting of preparation, readiness assurance, and application, were given to a cohort of 139 second year nursing students in 2010 and 263 students in 2011, respectively. They concluded that nursing students were generally satisfied with team-based learning. Multiple regression analysis revealed that the learning process significantly affected learner satisfaction compared to pre-assignment, course content, peer evaluation, and team activity. They suggested that team-based learning facilitators should organize and conduct team-based learning activities, while also considering instructional design factors, to help students learn effectively.

Cheng *et al.,* (2014) applied the team based learning approach in a Maternal-Child Nursing course and to evaluate its effects on learning outcomes. They presented one-group pretest–posttest research design with the intervention of the TBL teaching strategy. TBL significantly influenced the students' learning outcomes. Students who expressed that TBL increased their learning interests had a higher score on VT; and students who had high achievement from the current TBL course had higher scores on the CES, VT, and SDLI. They concluded that The TBL design requires out-of-class preparation before all classes, which requires active and self-directed learning. TBL provides opportunities to foster learner-to-learner interactions, which lead to more active engagement and teamwork among learners. It also promotes the students' class engagement and teamwork values, and it increases academic performance. They suggested that TBL have a greater effect on academically weaker students.

III. METHODOLOGY

This research was descriptive and cross sectional in nature which is a quantitative study design. This is primarily because a descriptive study is classically used to establish the prevalence or extent of some medical problem in a community (Nardi, 2018).

Fifty (50) Post RN (BSN) students from School of Nursing, Madinah Teaching Hospital Faisalabad were selected. The researcher used fifty (50) students as the study population. The sample of current study was comprised of fifty (50) out of all students from Post RN(BSN) students from School of Nursing, Madinah Teaching Hospital Faisalabad. A consecutive sampling method was used for the current research. Participants were enlisted in this study without coercion or inducement. Privacy was also ensured during the evaluation. This study was noninvasive thus they were protected from harm. Decision of any participant not to participate or withdraw from the study was respected. Freedom of the researcher to draw conclusion: this formed part of the information availed to the participants prior to obtaining informed consent from them.The data of current research study was analyzed with the help of statistical software which known as SPSS version 21.0. Descriptive statistics i.e. Mean, Standard Deviation and Frequency Distributions were used for the description of trends in the data.

IV. RESULTS AND DISCUSSION

A descriptive cross sectional survey which is a quantitative study design is used for this study. This is primarily because a descriptive study is classically used to establish the prevalence or extent of some medical problem in a community (Nardi, 2018). This research was quantitative & cross sectional; a self-administered questionnaire was the tool. The TBL intervention was offered to 50 Post RN (BSN) students of School of Nursing, Madina Teaching Hospital Faisalabad. The purpose of the study was to describe learner satisfaction and to identify factors influencing learner satisfaction among nursing students in a Post RN (BSN) nursing course. TBL was an effective instructional strategy that produced overall student satisfaction. The learning process significantly explained learner satisfaction when compared with pre-assignment, course content, peer evaluation, and team activity.

Table 1

Mean TBL-SAI Scores

TBL-SAI subscale and total scale	Mean Score	SD	Possible Mean Score
Accountability	29.60	3.251	8 to 40
Preference	52.54	4.123	16 to 80
Satisfaction	31.68	5.761	9 to 45
Total	**113.82**	**13.135**	**33 to 165**

TBL overall was seen as a very good alternative to lectures, participants' discourse tended to focus on specific parts of the TBL intervention, such as the video-recorded lecture. Interestingly, students spontaneously pointed to a 'novelty factor' which might have influenced their enjoyment of the intervention. They suggested that the TBL intervention was enjoyable precisely because it was an alternative to the traditional lecture: in the same way that other forms of the flipped classroom, practice-based learning and role-play, were perceived to be engaging.
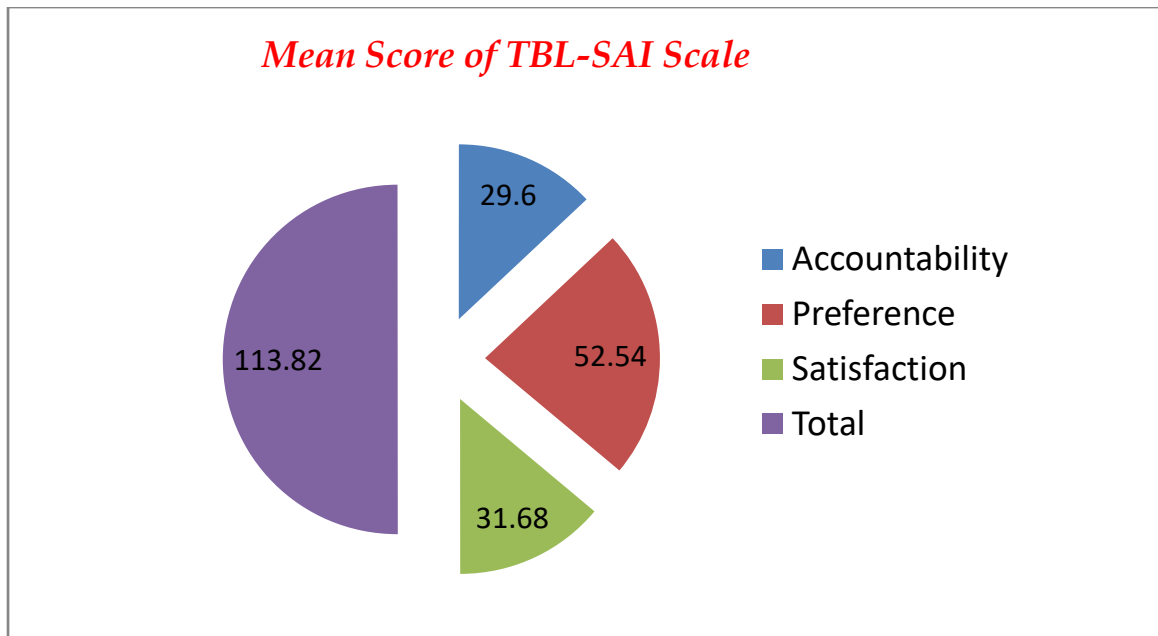
Fig. 1: *Mean TBL-SAI Scores*

V. DISCUSSION

Based on the findings of TBL-SAI, the students of the Nursing School of the Teaching Hospital Madinah Faisalabad reported higher responsibility and satisfaction with TBL, as well as giving priority to this method. These are consistent with the findings of previous studies on nursing education in the United States. UU They used TBL-SAI as a measure of measure (Mennenga, 2015, Branson et al., 2016). In addition, the rich synthesis of the DGF topic in this study allows a comprehensive explanation of these results TBL-SAI.

There are many signs that TBL ability can help narrow the theoretical gap practical or practical theory may arise if higher education does not keep pace with development in the clinical environment or vice versa (Benner et al., 2009). Students realize that decisions about patient care are often best achieved in a group environment and this is reinforced by group activities. Students want this kind of context and are more likely to engage in learning when they see it clearly related to practice (Evans et al., 2010) and this is directly proportional to adult learning theory (Knowles et al., 2011). Teams must also demonstrate their clinical decision-making, involving future registered nurses who will be responsible for their actions (Consejo de EnfermeríayObstetricia, 2015). It has been emphasized that competent experts can combine to form an incompetent team (Lingard, 2009). This underscores the importance of preparing students for not only qualified and safe nurses, but also an effective member of the health care team.

Although the TBL-SAI results of this study indicate that students find themselves more responsible to their peers due to the arrangement of TBL, in the FGD, participants chose to refer to the preparation. This reinforces that some of the benefits of TBL are achieved through emphasis on small group work (where non-participatory anonymity cannot be maintained in the way that a conference allows), and the focus on Patient cases in this way has emerged as a strong pedagogy for nursing education (Benner et al., 2009).

Some students admitted to being poorly prepared for the class. To counteract this social activity, it is recommended that the results of the individual tests, compared to the

results of the group, be calculated at the end of the student's module (Haidet et al., 2014). . Peer assessment, in which each member of the group qualifies for each individual's contribution to the group, can also be used to influence individual ratings to encourage group participation. However, this is not without risk and requires careful management because students often do not support eligibility for classmates (Haidet et al., 2014).

Although positive results are related to satisfaction with TBL, analysis provides evidence of the multi-faceted understanding of participants. At different times in the FGD, participants identified satisfaction and discomfort as two opposite sides of the same learning process. The findings indicate that students are not only aware but also comfortable, because learning is difficult and uncomfortable, because this year has helped manage expectations (Mennenga, 2015). These experiences emphasize the importance of achieving a student's "commitment" to a new approach, but it benefits from a pedagogical perspective.

In this study, the implementation of the test in the materials taught by TBL in accordance with the lecture is given in accordance with the TBL document (Haidet et al., 2014; Sisk, 2011); TBL in general does not seem to increase or decrease the performance of the test. However, in order to measure the effectiveness of learning related to TBL or any reverse class approach, the assessment may need to be reorganized to capture higher level learning outcomes (McLaughlin et al., 2014). In a nearly experimental study, nursing students taught with TBL achieved significantly higher scores on critical thinking, leadership and management skills (Branson et al., 2016), while in In another study, randomly assigned nursing students were taught significantly higher TBL scores in resolution, knowledge and clinical performance (Kim et al., 2016).

The results of this study indicate that participants assessed TBL in a broader sense of responsibility, satisfaction and priority. Specifically, students mention certain elements of TBL interventions many times, with the recorded reading being particularly prominent. There is often a perception that TBL is generally a teaching method in which researchers can measure impacts and are generally positive (Haidet et al., 2014; Sisk, 2011). However, our research indicates the need to understand TBL as a complex intervention (Craig et al., 2008) with a range of components that must be separated for measurement. When this is done, it is clear that the same TBL approach may not work in all environments. For example, while a similar study showed that lectures were recorded as an important component of TBL intervention, another study showed the opposite (Mennenga, 2013) and an in vitro evaluation score. That department really improves when the lecture is excluded (Mennenga, 2015). Future studies of TBL evaluation should take into account this complexity and the longitudinal studies required to assess the maintenance of knowledge in clinical practice. In addition, the results obtained through TBL can be compared more equally with other forms of small group teaching, not just conferences.

This evaluation study was conducted at the Nursing School, Teaching Hospital of Madinah Faisalabad. Therefore, the findings may not be generalized to physiological modules or other research levels. In addition, only one topic in the module is distributed using TBL. Although this allows important comparisons to be made with topics taught in lectures in modules, but it is not ruled out that some students are comparing their TBL experience with lessons and lecturing in other modules. The fact only includes a topic that prevents the use of peer review, which is considered an important component of TBL. It is also possible to be a novel element in which TBL can be highly qualified simply because it is a change from the normal student experience. It is not clear whether this

advantage will be maintained if the TBL provides a complete module or program. Although the results of the TBL exams compared to the subjects taught in lectures are directly proportional to the results in the literature, the lack of randomness eliminates the conclusions about TBL effectiveness. Although the informal assessment of the staff is very positive, there are no formal accounts to be searched which mean that important feedback can affect the success of implementing TBL may still not be known.

VI. CONCLUSION

Most students had a preference for, and reported higher accountability and satisfaction with Team-based Learning. Through contextualization and teamwork, Team-based Learning appears to be a strategy that confers strong pedagogical benefits for nursing students. The result shows that mean value of Accountability subscale was found to be 29.60, Mean value of Preference subscale was found to be 31.68, Mean value of Satisfaction subscale was found to be 52.54 and Mean value of TBL-SAI scale was found to be 113.82. These values indicate that most students had a preference for, and reported higher accountability and satisfaction with Team-based Learning. Through contextualization and teamwork, Team-based Learning appears to be a strategy that confers strong pedagogical benefits for nursing students.

VII. SUGGESTIONS

1. It is recommended to increase nursing students' participation in argument by applying active teaching methods which can provide the opportunity for increase nursing students' perception of the psycho-social climate of the classroom.
2. The TBL is recommended as a highly interactive method for nursing curricula.
3. Further studies with longer intervention periods are needed to assess the longitudinal outcome of team based learning.
4. It is recommended that nursing faculty seek out and utilize other educators with expertise in TBL.
5. The support of a colleague in a different Faculty, and the university's Centre for Teaching and Learning can be invaluable resources. Converting the format of a previous lecture-style class into TBL will take a significant amount of time, effort and planning for this commitment.
6. Work on course re-design should begin several months in advance, and making any other significant changes at the same time will have to be avoided. If there is inadequate time or resources to convert a whole course into TBL format, just one or two class topics into TBL modules should be undertaken.
7. An orientation day would be helpful and offered to highlight the benefits of TBL for students (specific to a particular faculty).
8. As students become more proficient at team learning, most questions can be answered within the student teams through peer teaching.
9. Since students communicate with each other on social networking sites and compare questions, marks, weighting, averages etc., it is necessary that faculty make every effort to keep TBL format consistent between classes.

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