

Original Article

Theoretically Based Game for Student Success: Clinical Education

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Abstract

Background: Nursing is an applied science and clinical education of nursing students forms the center of nursing education. Clinical experience accepted as an important and fundamental component of long nursing education. Importance of clinical learning experiences and limitations of its sources require habilitation of clinical implementation opportunities from clinical educators.

Aims: The aim of this study is to create an effective clinical education environment in the study, “Theoretically Based Game” plan frame, which encourages learning and motivates learning performance.

Methodology: Study was designed with respect to “Level 2” study group, which was formed as results of clinical trainer’s observations, and initiatives which were committed during applications with respect to educational research model, theoretical knowledge content, and controlled laboratory studies.

Results: As a result of positive feedbacks which were given by students and clinical trainer’s observations, it is been thought that this study is motivator, a compelling learning centered a game.

Conclusion: It is been thought that presentation of this kind motivator, compelling, learning centered environments benefits to the development of clinical education and forms evidence base to the nursing education.

Keywords: nursing education, clinical practice, game, success

Introduction

Education is a process that foresees attainment of certain behavior types, values and attitudes of individual, and reaching a persistent view in approaching problems. (Haciaalioglu, 2011; Strickland & Kaylor, 2016). Nursing is an applied science and clinical education of nursing students’ forms the center of nursing education (Preheim & Foss, 2015). Clinical experience accepted as an important and fundamental component of long nursing education. Importance of clinical learning experiences and limitations of its sources require habilitation of clinical implementation opportunities from clinical educators. When training methods, which are intended to develop the abilities of students in nursing education, have been determined; these must be applicable for learning objectives and must give opportunity to students for implementation of their acquisitions.

Clinical educators have responsibilities such as determination of impelling clinical behaviors and

perform them for student, patient and family and nursing occupation. Within these responsibilities, in education management, it is very important that they must create functional, interesting learning environment with rich stimulants within available facilities (Haciaalioglu, 2011; Woodley, 2015).

Learning outcomes, which are aimed in clinical education process, are related with three learning fields. Cognitive learning; represents clinical reasoning, problem solving and increasing information level of student in the development of high order thinking skills. Psychomotor learning; represents ability acquisition which consists students ability to carry out in time with safe, efficient, accurate and without any faults. In the third learning area, which is affective area, develops the professional attitude, belief and values which form an important part of students’ nursing implementations (Bloom BS, 1974; Gaberson & Oerman, 2010; Erginer, 2015). In the clinical implementation, students need must be evaluated individually by grounding on

theoretical basis, learning encouraging clinical activities must be planned and an efficient learning experience with students must be developed (Strickland & Kaylor, 2016; Koivisto, 2016). Clinical learning process; must consist of determination of learning acquisitions, evaluation of student needs, planning of clinical learning activities, guidance for students and evaluation of students learning and performance (Woodley, 2015). Because of this reason, in order to create an efficient clinical learning environment, with student-clinic cooperation, “Theoretically Based Game” plan frame which encourages learning and motivator for learning performance, was aimed.

Methods

Implementation of Educational Gaming

Study was conducted between February-May 2016 dates of Nursing Fundamentals class, in a education and research hospital where clinical education has carried out, by implementing “Theoretically Based Game for Student Success” to students. It was implemented 45 students that volunteered for the research, from the students who took Fundamentals of Nursing I class and started clinical training with researcher. Students joined clinical training in two groups (n=21, n=24) in two different days for 14 weeks.

Study was designed with respect to “Level 2” study group, which was formed as results of clinical trainer’s observations, and initiatives which were committed during applications with respect to educational research model, theoretical knowledge content, and controlled laboratory studies (Oermann, 2009). Firstly, learning outcomes of Fundamentals of Nursing clinical practice was determined (Table 1).

Learning outcomes were shared with students and purpose of clinical training was determined. Clinical evaluation methods which are need to be selected for outcomes of clinical class and purposes; were prepared in completion format, in accordance with literature and with student-clinical educator cooperation for to be encouraging learning benefit. Students were informed about competition, which was planned as 3 stages, and its content and dates, written consents were taken. First stage of competition consist of preparation of “Nursing Process” in accordance with “Model of Living” which is the basis of individual based and holistic caring (Velioglu, 2012; Kaya, 2012). In the seventh week of clinical training, students were required to present written nursing care plan which consists of definitions of live activities of the patients that they gave caring, determined nursing definitions that intended for problem, nursing attempts that applied by clinical nurse and observed by students and evaluations of objectives.

Before this for 6 weeks, case presentation, patient visit activities were implemented on volunteered students and guidance were given by feedbacks. In this stage where cognitive and affective area were evaluated individually, grades were given in accordance with grading system that prepared by literature, in 100 score system (Roper et al. 1996; Kaya, 2008; Carpenito 2012).

Evaluated nursing care plans were given back to students and debriefing was done (Jeffries et al., 2015). In the second stage of competition, students that achieved to be in the first twenty students according to grades, were divided into two people groups, in total 10 groups.

Table 1. Learning outcomes of Fundamental of Nursing Clinical Practice

1	Be able to communicate with healthy/ill individual and family, health team members
2	Be able to explain the importance of ethics in nursing practices
3	Be able to plan nursing process of healthy/ill individual in accordance with model of living
4	Be able to sort nursing interventions which are intended to ensure activities of living and continuity
5	Be able to practice basic nursing abilities in laboratory environment.

In the ninth week, theoretical content knowledge competition was done in order to evaluate the cognitive area. 10 written, 15 true-false questions were expected to answer as to be time limit for written questions is 1 minute and true-false questions 30 seconds. Determined questions were prepared from the contents of lesson that were given during Fundamentals of Nursing theoretical and practice, such as, “nursing concepts, models that are in use in nursing care, nursing philosophy, nursing process, patient safety, activities of living, preventing the infection and control, hygiene practices, tissue integrity, vital signs, medication implementations and dose calculations, basic abilities which are applied to respiratory-digestion-urinary systems” (Asti & Karadag, 2012; Potter & Perry, 2013; Akca, 2015).

Two people groups were required to show visually determined answers that co-decided after the given time finished which was started after researcher read the question. Written questions were graded 7 points and true-false questions were 2 points, students were graded according to 100 points system. In the third stage of the competition, first three groups who were successful in the last competition (n=6) were taken. They were required to practice two nursing practices in the ability laboratory where cognitive, affective and psychomotor ability outcomes are provided. Students were wanted to practice one of the parenteral injection and peripheric catheter practice which were decided by drawing lots (Babadag & Atabek Asti, 2008). Students who were taken into practice one by one, were applied their practices on the prepared simulator dummy by explaining verbally. Students who left the practice were prevented to see each other until the exam finish. Accuracy of practice steps was controlled for every step and grading was done.

Ethical Consideration

The necessary permissions were taken for the study from the institution where the application would be made. Additionally, informed consents from the students included in the study were taken before the application.

Results

It was determined that 92 % of students, who participated in the study, is woman (n=41), 8 %

of (n=4) man and average of age is 20.07. In the first stage of the study, students were asked to evaluate the nursing care plan, which they prepared in the clinical practice.

Evaluation was done by grading of the titles over 100 points, these titles are; nursing care plan's patient identification form and assessment, nursing diagnosis, planning, implementation and evaluation. It was seen that the highest point average of students exist in “maintaining a safe environment, breathing, controlling temperature (2.4, 2.4, 2.4)” from daily life activities and lowest point average is in the definition of “expressing sexuality (1.02)” activity (Table 2).

It was seen that highest note according to nursing care plan evaluation is 83, lowest point is 65 and all students' point average is 72.4. First successful 20 students according to first stage points, were taken into a knowledge competition in two people groups that they formed, at the same time. Average point of 10 questions which was asked in classic question technique is 25.7 and 15 questions that asked with question-answer technique is 35.5.

Highest point average in classical questions is the questions related to vital signs, lowest point average questions are the questions related to models which are in usage of nursing care. Moreover, highest point average in the questions that prepared with true-false technique is in the medication practice questions and lowest point average is in hygiene practices and tissue integrity questions (Table 3).

After the second stage, most three successful student groups according to grades were taken into last stage. In the lot for the parenteral injections, intramuscular injection (1. and 2. Group) and subcutaneous injection (3. Group) were come out and other practices did not draw. Given grades in the parenteral injections steps which happened in the ability laboratory were resulted respectively, 58,86,76 and peripheral venous catheter point average respectively 90,92,85 (Table 4).

Table 2. Evaluation of Practiced Nursing Care Process by Students

	Point	Point average
EVALUATION CRITERIA		
ASSESSMENT (<i>Evaluation of the Patient According to 11 Activities of Living</i>)	30	23
1. Evaluation of Maintaining a Safe Environment	3	2.4
2. Evaluation of Communication	3	2.2
3. Evaluation of Breathing	3	2.4
4. Evaluation of Eating and Drinking	3	2.08
5. Evaluation of Elimination	3	2.1
6. Evaluation of Washing and Dressing	3	2.1
7. Evaluation of Controlling Temperature	3	2.4
8. Evaluation of Mobilization	3	2.2
9. Evaluation of Working And Playing	2	2.06
10. Evaluation of Expressing Sexuality	2	1.02
11. Evaluation of Sleeping	2	2.02
NURSING DIAGNOSIS	20	15.7
1. Be able to determine applicable nursing diagnosis	10	7.8
2. Be able to organize order of precedence specific to individual	5	4.3
3. Be able to write Nursing Diagnosis in the formula of symptom/etiology	5	3.6
PLANNING	15	9.4
1. Be able to determine aim/result related to diagnosis and specific to patient	10	6.5
2. Clear, measurable, realistic, accessible aims	5	2.9
IMPLEMENTATION	15	10.06
1. Be able to observe/practice/plan applicable, technical, managerial, educational caring	15	10.06
EVALUATION	20	14.3
1. Evaluation of if the aim was reached or not	10	8.08
2. Discussion of the results with family members	5	2.4
3. To record result as appropriate	5	3.8
Total Point	100	

Table 3. Knowledge Contest for Students

Question Titles	Point	Point Average
Classical Technical (10 Questions)	40	25.7
1. Nursing Concepts (2 Questions)	8	3.7
2. Models in usage of Nursing Care (2 Questions)	8	4.2
3. Nursing Philosophy (1 Question)	4	2.8
4. Nursing Process (2 Questions)	8	5.4
5. Patient Safety (1 Question)	4	3.3
6. Vital Signs (1 Question)	4	3.5
7. Calculation of Medication Dose (1 Question)	4	2.8
True-False Answer (15 Question)	60	35.5
1. Activities of Living (2 Questions)	8	5.8
2. Preventing the Infection and Control (2 Questions)	8	5.9
3. Hygiene Practices (1 Question)	4	2.2
4. Tissue Integrity (1 Question)	4	2.1
5. Vital Signs (2 Questions)	8	3.6
6. Medication Practices (2 Questions)	8	6.5
7. Applied Basic Abilities for Respiratory System (2 Questions)	8	5.3
8. Applied Basic Abilities for Digestive System (2 Questions)	8	5.4
9. Applied Basic Abilities for Urinary System (1 Question)	4	2.6
Total Point	100	

Table 4. Laboratory Practices

Practices	1.group grade	1.group grade	1.group grade
1. Intradermal Injection (18 steps/ coefficient 5.5)	-	-	-
2. Subcutaneous Injection (17 steps/ coefficient 5.8)	-	-	76
3. Intramuscular Injection (18 steps/ coefficient 5.5)	58,862	86	-
1. Intravenous Injection (17 steps/ coefficient 5.8)	-		
5. Intravenous catheter Practice (21 steps/ coefficient 4.7)	90	92	85

Results according to these data, second group came out first in the gradation. Students who took the first place awarded with written congratulation in “12th May World Nurses Day”. During competition and after, students continuously have been observed and feedbacks were given. In the end of competition, in the qualitative data which were taken as verbally: “The race was very excited” “It was so much fun” “The race very motivated for learning” contents are intense and clinical educator stated positive observations about “Theoretical-Based Competition for Student Success”

Discussion

In the conducted study, a learning centered environment that student can control and manage individually, was created. After the caring which students planned individually, working in small groups for a teamwork and in the continuous competition, personal confidence and creativeness and be able to take responsibility in a state of cooperation were taken upfront. Also students who could not make into the next stages and others, all of them, gave positive feedbacks, and this situation states that applicable education environment was created (Peddle, 2011).

When the caring process, which is first stage, was examined, the reason why students interested in the highest point average activities, which points were graded in objective and subjective data, “maintaining a safe environment, breathing, controlling temperature (2.4,2.4,2.4) that remain in “Activities of Living” assessment, and the lowest point average topic is in the “expressing sexuality (1.02)” activity, is the result of they may experience shyness and timidity in their first year of nursing education. During the students nursing care process, it was

seen that students are adequate at planning nursing diagnosis in the order of precedence specific to individual, evaluation if the aim was reached or not, and registering and the all students total point average is 72.4. In the second stage, in the applied knowledge contest, it is seen that students mostly correct answered the questions related to vital signs and the least correct answered questions are related to models which are in use of nursing care. It is been thought that students work about theoretical information for the knowledge contest happened without grade anxiety, in peer cooperation within two people groups. In the third stage, two parenteral injections were drawn from four different parenteral injections by lot and every group required practicing intravenous catheter application in the laboratory environment. In the end of practices, intravenous catheter practice was successful in all groups. Researcher observed positive motivations of students who could not pass the other stage for the students who continued competition.

Conclusion and recommendations

Fundamental aim of nursing care, is to give student nursing occupation awareness in a conceptual frame with theoretic structure; information, ability, attitude and ethical standards integrity by integrating with practices (Karaoz 2002, Tasocak 2012). Practices which are important areas in order to reach this fundamental aim, are carried out in “ability laboratory and clinical areas”. In these areas, in order to organize the learning environment for students benefit, student-clinical educator cooperation importance is enormous (Peddle 2011, Strickland & Kaylor 2016). By taking awareness of this, clinical educators must be efficient, inspirational, motivator and must be

interested in the best teaching practices (Woodley 2015, Strickland & Kaylor 2016). Within the existing facilities, the presented and gathered idea exchange with students and in the expected and formed study by integrating must beings, positive feedbacks from students and results of positive observations of clinical educator, it is been though that presentation of this kind motivator, compelling learning centered environment benefits the development of clinical training. Based on these result, in the clinical training areas in Level 2, this kind motivator trainings repetitions are suggested in terms of research results to form proof base for nursing education.

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