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COMPARISON OF NURSING STUDENTS 'CLINICAL APPLICATION SKILLS BY RIDIT ANALYSIS

Hemşirelik Öğrencilerinin Klinik Uygulama Becerilerinin Ridit Analizi İle Karşılaştırılması

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ABSTRACT

This study is planned to compare the effectiveness of the clinical practice of gynecology and nursing lesson, the skills that students need to acquire in the knowledge and practices they should have, and to what extent they can turn them into practice, to predict the possible effects of such an evaluation on education. In the study, 145 students, who had taken the Gynecology Nursing, were included. Ridit analysis is used in analysis of the data. The students' Ridit Points about the clinical application were calculated. It was found that most of the students, having taken the Gynecology Nursing, were insufficient in the postnatal medicine application, obstetric patient admission, breast-feeding control, their Ridit Points were low. The highest Ridit Points was record keeping, APGAR score evaluation. Students were found to be inadequate in terms of drug application, obstetric patient admission, breastfeeding education. We concluded that student nurses were more successful in clinical practice, recordings in place of drug administration, education. Students were found to be more successful in the newly prepared Gynecology Nursing Clinical Practice Evaluation Form. It is thought that the form applied to the intervention group examines student's success in more detail can contribute to nursing education, other periods.

Keywords: Clinical Application, Obstetrics, Nursing student, Ridit analysis

ÖZET

Bu çalışma, Doğum ve Kadın Hastalıkları Hemşireliği dersinin klinik uygulamasının etkinliğini, öğrencilerin sahip olmaları gereken bilgi ve uygulamalarda edinmeleri gereken becerileri ve eğitimi değerlendirmek ve ne ölçüde uygulamaya dönüştürebileceklerini karşılaştırmak amacıyla planlandı. Çalışmaya Doğum ve Kadın Hastalıkları Hemşireliği dersi alan 145 öğrenci dahil edildi. Öğrenciler basit rasgele örneklem yolu ile müdahele ve kontrol grubuna seçildi. Verilerin analizinde Ridit analizi kullanılmıştır. Öğrencilerin klinik uygulamaya ilişkin Ridit Puanları hesaplandı. Doğum ve Kadın Hastalıkları Hemşireliği dersi alan öğrencilerin çoğunun doğum sonu ilaç uygulamasında yetersiz olduğu, obstetrik hasta kabulü, emzirme kontrolü konusunda yetersiz oldukları ve ridit puanlarının düşük olduğu belirlendi. En yüksek Ridit Puanı kayıt tutma, APGAR Skor değerlendirmesi idi. Öğrencilerin ilaç uygulaması, obstetrik hasta kabulü, emzirme eğitimi açısından yetersiz olduğu görülmüştür. Öğrenci hemşirelerin klinik uygulamalarında, ilaç uygulaması ve eğitim yerine kayıt tutmada daha başarılı oldukları sonucunu çıkardık. Öğrencilerin, yeni hazırlanan Jinekoloji Hemşireliği Klinik Uygulama Değerlendirme Formunda daha başarılı olduğu görüldü. Müdahale grubuna uygulanan formun öğrencinin başarısını daha ayrıntılı olarak incelediği, hemşirelik eğitiminde ve diğer dönemlerde de katkıda bulunabileceği düşünülmektedir.

Anahtar Kelimeler: Klinik uygulama, Kadın Doğum, Hemşirelik öğrencisi, Ridit Analizi

1.INTRODUCTION

As well as offering theoretical information to the students, nursing training provides functionality to this information and allows an opportunity to show behavioral change and development in terms of knowledge, attitude and skill. By this reason, applied training has a great importance in the nursing training (Utkualp and Oğur, 2010).

Gynecology nursing includes fertility in the phases of women life, reproduction features, pregnancy development, health requirements in prenatal, perinatal and postnatal periods and all other subjects. The roles that are needed to be developed in the gynecology nursing are grouped under four main groups as care-giving, communication, health training, consultancy and professional role (Şirin et al.2003; Akpınar et al. 2016).

While knowledge is evaluated by the traditional methods, such as written exams, in the professional training, the assessment and evaluation of skills are more difficult. It is necessary to assess skill and attitude, alongside with knowledge. It is because one of the most basic objectives of the schools of nurse training is that a student must be capable of providing a safe care and have enough background to be able to provide that before graduation (Partovi Meran and Hotun Şahin, 2014; Arslan and Özbek, 2015; Boztepe and Terzioğlu, 2013)

The clinical training can be defined as a process which provides an opportunity to the student for putting his theoretical knowledge into training, for gaining a professional identity and learning by practicing. At the clinic, the nursing teachers must focus on providing opportunities to the students for using skills, for motor and intellectual learning, for problem solving, for efficiently using time, for taking professional decisions as well as encouraging the creative skills of the student and enough counseling to the student (Akyüz et al. 2007; Titrek et al. 2015). The methods, used in the evaluation of the skills, serve as a skill development guide in the application field, along with assessing the students' performances. In this study, "Gynecology Nursing Clinical Practice Evaluation Form" was used within the scope of the application guide, prepared in the field of gynecology nursing. Specifically prepared for the field, this form both allows the evaluation of the student more objectively and clearly explains the application, required to be made at the clinic. Therefore, scientific evaluation will be allowed in gaining and assessing professional behaviors.

In this study, the students who took the course were evaluated according to two different application forms and the performance evaluations between the two evaluations were associated with the Ridit analysis. In the study, with the new form created, it was aimed to determine the students' method of providing better information and to be used in the curriculum.

2.YÖNTEM

2.1. Study Population And Procedure

This study was made as a descriptive one in order to find the reflection of the evaluation of the students, different from the traditional evaluation form that is used in the gynecology and other variables in the evaluation of the students' success for the application, on the evaluation process. For this course, the clinical application success of each student is evaluated with the existing traditional form. As a result of the application evaluation, it is formulated taking into account the student's performance.

The study was made in the Gynecology Clinic of the Medical Faculty of Afyonkarahisar Health Sciences University between October-December 2016-2017. The population of the study was consisted of the students of nursing training at Afyonkarahisar Health Sciences University. The sampling of the study is consisted of 145 students that took the Gynecology Nursing at the Faculty of Health Sciences of Afyonkarahisar Health Sciences University (77 intervention group (in 2016, 31 students, in 2017, 46 students) and 68 control group (in 2016, 35 students, in 2017, 33 students).

In the twelve weeks period between October-December months, when the Gynecology Nursing clinical application was realized, the evaluation of success was made for the first two days of the week and between the years of 2016-2017 (application of the study).
The study was carried out in the first 2 days of the week every week of clinical practice days during the 12-week course period. After the students completed the theoretical in four weeks, they began the application in groups of five people in the delivery room, postnatal ward, gynecology polyclinic and newborn service. Each group of students made three weeks of clinical application in the postnatal service and the delivery room, and then the location of the students was changed in rotation. In the clinical application, student nurses met the expectant mothers in the delivery room and prepared them for delivery. Alongside with these treatments, the mothers were educated in terms of lactation, family planning and breast caring. After caring and education, each student was made to do all applications at least once and the students were watched during applications. After monitoring, "Gynecology Nursing Clinical Practice Evaluation Form", developed within the scope of specific application guidance for each student, was applied separately for the

intervention group and the control group. The data were collected by the means of the face-to-face interview technique in the years of 2016 and 2017 by using "Gynecology Nursing Clinical Practice Evaluation Form", consisted of 25 subjects/questions, and classical (control-classical form) student success evaluation form, consisted of 10 subjects/questions, and both of them had been developed by the researchers. In the study, the student success evaluation data sets, named to be intervention group and control group, were compiled and examined by the means of Ridit analysis. When the students in the intervention group were evaluated with the Gynecology Nursing Clinical Practice Evaluation Form, a total of 25 questions were assessed by giving 0 points if they did not know the question, 2 points if they knew it, but 4 points if they knew it completely. Questions with groups among themselves were calculated by dividing the number of questions.

2.2. Statistical Analyses

In the statistical analysis of the data, Statistical Package for the Social Sciences (SPSS) 22.0 software, R and Microsoft Excel programs were employed. The frequencies, Ridit points, Kruskal Wallis Test statistics and Chi-Square table were used in the analysis.

For the study, an approval, dated 05.05.2017 and number 2017/5-149, was taken from the Scientific Research and Publication Ethics Board of Afyon Kocatepe University and verbal approvals of the students, who accepted to participate in the study and were suitable for the specified qualifications, were taken.

The fact that the research was made with the data collected on the basis of the results of the success evaluation of the students, studying at a university, in the application of the Gynecology Nursing, and that only two years of experiment and control data were compared, and that the success evaluations of the academic member at other universities, teaching the same lesson, were not compared constitute the limitations of this research.

2.2.1.Ridit Analysis

Ridit analysis is an analysis technique, which was provided to the literature on statistics by Bross (1958) in order to find whether the distribution of the intervention group is significant at an important level in comparison with the distribution of the control group and which was introduced with the substantial contributions of Snell (1964) and Kantor et al. (1968) (Croushore and Schmidt, 2010). In Ridit analysis, Ridits are calculated by using the subject variables of a research and the frequencies that correspond to the options of the ordinal scale (classes, categories) that belong to the variables (Flora J. 2014; Beder and Heim 1990).

The decision of whether the difference between the calculated mean for the variables and the standard value of 0,5 is significant is taken by comparing the test statistics of Kruskal-Wallis $W = 12 \sum_{i=1}^{D} F_d(r_d - 0.5)^2$ (for a sampling which is big enough) to Chi-Square table values (the degree of freedom is one less than the number of variables and the confidence level is mostly taken as 95%). In finding between which values the variable's mean Ridit values are expected to be, the top and bottom Ridit values are found by adding and omitting the opposite of the square root of the total number of units' (F_d) multiplication with three in the sampling. That 0,5 value is between these limits displays that the distribution of frequency could be distributed symmetrically or correctly and that this value is not 0,5 displays that the classes of the related variable are a kind of variable that has a high or different frequency distribution in the bottom or top classes (Kurt, 2006).

Ridit analysis can be used in order to compare two or more groups for the same variable. The mean Ridit value of the comparison group is evaluated as the possibility of the fact that a person, randomly selected from this group, may belong to a higher/lower class, compared to a person, randomly selected from the application group. With the questionnaire method, Ridit analysis can be used in mainly social sciences, in which data are collected with Likert scale, alongside with many other fields, such as Medicine, Dentistry, Psychometry, Biometry, Sociometry, Econometrics, Zootechnics, Meteorology etc. (Agresti, 1990; Brockett, 1981; Davidson , 1984; Levine et al. 1972; Fleiss et al. 2003; Wu, 2007; Bilgin, 2003;Doyle and Dorling, 2002).

In the researches, the distribution of the sampling data, taken from a universe, with 3 or more classes in a quantitative order, can be examined with Ridit analysis. Ridit analysis is used in various fields, generally in comparing the approval levels of the contribution options to the variables, evaluated with the Likert scale

with 5 classes, and the ranking of the approval levels of all of these variables, and the approval levels of the answering groups for the same variables (Croushore and Schmidt, 2010). The insufficiency of sampling sizes in the health sector popularized the use of Ridit analysis. Created with the simulation technique, the ordinal categorical values, with very small samplings, as being 10 for each datum at each gravity level, are shown to be quite convenient in revealing the differences in the means, analyzed with Ridit analysis (Donaldson, 1998; Bross, 1958; Flora,1974;Hurwitz, 2016).

In this study, academic member(s) used a data set, in which the students are categorized in 3 groups as unsuccessful, mediocre and successful, on the subjects that are related. The student success data set, two different evaluation system and the distribution of the success scores, gathered for two years and statistically grouped under subjects with a system form and time.

3. RESULTS

The students, who took of Gynecology Nursing in the education year of 2016-2017, were taken into application in a manner that they constituted the control and intervention groups. The age average of the students, taken into the scope of the study, was 22.39, and 72,3% of them was female and 27,7% was male.

The success points of the students were taken as 0, 2 and 4 points respectively over 4 points for each topic (statement-question-variable) in the intervention groups. And the control groups, the point, specified for each topic, was evaluated as could not gain (insufficient), gained the half (partially insufficient) and gained the full point (sufficient).

According to the classical (control form) student success evaluation form, consisted of 10 subject/question, the grade average of 35 students (Control 1) that are taken into the sampling in the year of 2016 was found to be 68.03 and of 33 students (Control 2) in 2017 was 59.32.

According to the student success evaluation form, named "Gynecology Nursing Clinical Practice Evaluation Form", consisted of 25 detailed topics (experiment form), the average grade of 31 students, in the group Experiment 1 (year 2016), was calculated to be 81.48 and of 46 students, in the group Experiment 2 (year 2017), 68.78.

Firstly, by using the number/frequency of students, corresponding to 3 success levels, as being unsuccessful, mediocre and successful in Ridit analysis with student groups, average Ridit points were calculated for each topic with Redits and under each topic, student success levels' frequency distributions were interpreted. Then, average Ridit values, calculated for each topic, were listed in an ascending order. Which topic of the students had/did not have higher points was determined with the highest/lowest Ridit values. Order of Ridit was made from the unsuccessful topics to successful ones. Finally, the distribution of the points that different groups (the students in two control and intervention groups) took for the same topic was compared for the chosen topics.

3.1. Ridit Points of the Control Group Students and Evaluations

When it is taken as the reference that 35 students for the year of 2016 and 33 for 2017 took zero, half and full points from all of 10 topics, the frequency distribution of all the students was given for each topic (Table 1).

The statistical values of Kruskal-Wallis Test, used in the testing of the preliminary thesis, in which it was claimed that all Ridits, calculated for the frequency distribution of all of the students' success level in each group, were not different from 0,5, were found to be high.

3.2. Comparison of Control 1 and Control 2 Groups

When the frequency distributions of the control group students in the chosen topics, it was found that the chosen student was very probably among the students, who could take a full grade from the APGAR score evaluation (Ridit value is higher than 0,5). The difference between the distribution of the point that the students took in the topics of obstetric patient admission, NTS application, monitoring labor, determination and application of the caring method convenient to the need was not found to be statistically significant ($z<1,96$) (Table 2).

3.3. Ridit Points, Evaluation and Comparison of İntervention Group Students

According to the student success evaluation form of Gynecology Nursing Internship Evaluation Form (experiment form), the average grade of 31 students, who are taken into sampling in Experiment 1 in the year of 2016, was 81.48 and of 46 students, who are taken into sampling in Experiment 2 in the year of 2017, was 68.78. According to the classical (control form) student success evaluation form, all class Ridit values were calculated with the average Ridit points, calculated for the student number frequency distribution that displays the success of these groups, with higher grade than the average grade of the students that are taken into the sampling, on sub-topics.

It was found that in Table 3, in which Ridit points of the intervention group students are given in order, the students of Experiment 1 group were insufficient in the topics of postnatal exercises, pregnancy test examining skill, monitoring labor, NST application, postpartum bleeding monitoring and the students of Experiment 2 group in examination skill and obstetric patient admission points. The topics, in which the students had the highest frequency of taking a full point, was the evaluation of APGAR score, breast care, breast-feeding training in Experiment 1 and breast treatment and perineum treatment in Experiment 2 (Table 3).

In this study, it was found that the students of Control 1 group, who were given success grades with the method of classical (control form) student success evaluation form in terms of breast-feeding control in 2016, were the group, which took more full points than the students in the following year of 2017.

In the evaluation of the sub-topics of the breast care and breast-feeding training with the classical form, these are the topics which are subtly given place in the topic of breast-feeding control. A decrease was found in the success level of 2017 from the year of 2016 in terms of breast-feeding training. In terms of the topic of breast care, Ridit points of 2016 and 2017 were respectively 0.631 and 0.612 (higher than 0.5) and it shows that the frequency distribution of the student was high at the level of full point and the frequency of the year of 2016 is higher. When 2016 is taken as the reference group, it is seen in this comparison that Ridit point of 0.43 value shows that the student frequency at the full point was low in 2017 and also $z=-1.70<1.96$ value shows that the difference is not high statistically.

In the evaluation of the breast-feeding control, included in the classical form, the breast care and breast-feeding are given place as sub-topics, and these two topics are considered together and a grade is given to the student in the evaluation process. The student success is evaluated with two different grades by being separately monitored in more details under two sub-topics in the developed experiment form. It is seen that the students' average grade increases when they are evaluated under detailed topics.

4. DISCUSSION

It is important that clinicians, academicians and students, who have different roles, tasks and responsibilities with regard to the development of the nursing, create solutions for common problems together by making knowledge and skill transfers and work in cooperation (Eskimez et al. 2016). In this study, a field-specific application guide was created in order to permit students, who are making an internship application in the gynecology and obstetrics clinic, to put their theoretical knowledge into application in a more effective manner. With the "Gynecology Nursing Internship Evaluation Form", prepared within the scope of the prepared application guide, it was aimed at finding the topics, in which the students are unsuccessful, by more effectively evaluating the clinic-oriented knowledge and skills.

In this study, the average grade of the students who are taken into sampling in 2016 is 68.03 and 59.32 in 2017 according to the classical (control form) student success evaluation form. According to the Gynecology Nursing Internship Evaluation Form (experiment form), the average grade in the group Experiment 1 (year 2016) is 81.48 and 68.78 in the group Experiment 2 (year 2017). These findings show that the student success is high in the experiment groups. In the classical (control form) student success evaluation form, as the academic member evaluates multiple sub-topics together under a topic, he can be liable to give low grades in the main topic as the result of the failure in only one of the sub-topics. Due to this circumstance, a student, who is insufficient in a sub-topic that the academic member focuses on, may be given a low grade, even though he is successful in other sub-topics. This and similar circumstances affect the student's grade negatively. Evaluation of many sub-topics independently in the experiment group allows studying/understanding success in a better manner. Therefore, students can be evaluated better in the field of application.

It was found in the study that the students that are included in both of the groups are insufficient in the topics of medicine application and monitoring labor, and they were successful in the topics of education. The students are insufficient in the questions, asked about obstetric patient admission. It is thought that this situation is caused because of not understanding the term of "obstetric" very well. As the questions, directed to the students in the intervention group, are more detailed, the gained skills are evaluated more correctly and comprehensively.

In the study of Utkualp and Oğur, the applications of the students were the most successful in the topics of breast milk training, NST application, listening child's hearth sound and family planning training, respectively (Utkualp and Oğur, 2010). In this study, the topic of breast-feeding control, which had a big contribution to the success score in 2016 (in the 8th rank), became the second topic which has the low contribution by being in the 2nd rank in 2017. While being in the 25th rank in the intervention group in 2016, it was observed to be in the 17th rank in 2017. The student success scores were high in the intervention group in terms of the breast-feeding control in 2016 (25th rank) and the topic, with the highest contribution to the success score, it was observed that the contribution of the breast-feeding control topic decreased in 2017 (17th rank).

In a study, it was stated that although most of the students find it necessary to gather information about sexuality, they shied away from talking this topic with patients and especially with the opposite gender, regardless of the age difference. It was found that the knowledge of the students on sexuality and sexual health was at an insufficient level (Uysal and Yenal 2016). In this study, it was found that the students were more successful in the topics of breast-feeding training and information, consultancy. (78.1%) However, it was concluded that the consultancy subject, in which the male students had the most difficulties, was family planning (87.1%).

In the study, made by Yılmaz and Başer, that each student's taking care of mothers personally, meeting their personal care needs and providing necessary trainings increased the mothers' perception and satisfaction of nurses' caring (Yılmaz and Başer, 2017). In this study, it was found that the students had insufficient knowledge in terms of determining the patient needs and providing treatment accordingly. Because the topics were separated in more detail as breast care, breast-feeding training, family planning training, postnatal care and training in the intervention group, it was found that the students did not have any discrepancy in determining patient needs. Considering nursing care and patient satisfaction, the fact that the students in the experiment group were more sufficient in terms of care is originated from the questions' being more detailed in the evaluation form. By this reason, it is seen that the students present effective behavioral models in determining the patient needs.

In the study, under the sub-topic of the signs of dangers in pregnancy (Compared Ridit value 0.42, Z=-1.99), when a student is selected from the group Experiment 2, it can be said with 95% confidence that this student will be someone who took lower grades than a student in the group Experiment 1. In the sub-topic of the preparation for delivery (Compared Ridit value 0.54, z=1.05), when a student is chosen from the class, in which the application of Experiment 2 was made, this student can have a full grade compared to the students in Experiment 1.

In a study, 41.1% of the students stated that the academic members were not models in terms of caring and treatment in the application fields, and 40,4% of them stated that their application performances were not sufficiently evaluated by the instructors (Aydın and Argun, 2010). However, in this study, it was concluded that with the evaluation form, applied to the intervention group, the performance of the students is evaluated more efficiently, and the application grade was not an evaluation that included not only one or two questions but all the topics that they learned, and more time was spent with them. In the literature, there is the Gynecology Learning Guide for Nurses and Midwives, which was developed by Coşkun et al. (2008), specifically for the field. In that guide, the process steps of the standard applications are explained (Coşkun et al. 2008). However, in this study, the sources in the literature were firstly examined and revised, so a more detailed, up-to-date, effective and practical application guide (Application Guide for the Gynecology Nursing) was created. "Gynecology Nursing Internship Evaluation Form", which was prepared within the scope of this application guide, was evaluated by using Ridit Analysis. Not any study was found in the literature in which Ridit Analysis was used in the field of nursing and other health sciences. However, there are studies, in which the students attitudes and future anxieties are examined, with Ridit Analysis in the educational sciences (Tektaş and Aydın 2014; Kurt, 2008).

5. CONCLUSIONS AND RECOMMENDATIONS

An application guide was created in order to permit students, who are making an internship application in the gynecology and obstetrics clinic, to put their theoretical knowledge into application in a more effective manner. The success rate of the students, to whom "Gynecology Nursing Clinical Practice Evaluation Form", which was prepared within the scope of the application guide and evaluated by the means of Ridit Analysis, was applied, increased. It was found that the students were insufficient in terms of medicine application and obstetric patient admission, but they were sufficient in breast-feeding training, record keeping, and APGAR score evaluation.

With the created evaluation form, clinic-oriented knowledge and skills were assessed more effectively and the topics, in which the students were unsuccessful, were determined. This method allowed to evaluate students in a more professional, objective, effective and practical manner. By this reason, it is thought that the study will contribute to the nursing professionals in choosing the convenient methods in evaluating students.

Ridit Analysis, used in the study for the evaluation of the clinical application data, is a valid and reliable method. The usage of Ridit Analysis method in the field of nursing and other disciplines of health sciences will contribute to the literature.

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TABLES

Table 1. Order of ridit points of the students in the control group

Order No	Control 1 Group (2016) N=35 average 68.03 Order of topics	Ridit points ($\overline{r_k}$)	Bottom limit	Top limit	
1	Postnatal medicine application	0.379	0.281	0.476	--
2	Monitoring labor	0.383	0.285	0.480	--
3	Determination and application of the treatment convenient for the need	0.406	0.308	0.503	*
4	Obstetric patient admission	0.421	0.324	0.519	*
5	NST application	0.429	0.332	0.527	*
6	Newborn care	0.491	0.393	0.589	*
7	Evaluation of APGAR score	0.526	0.429	0.624	**
8	Breast-feeding control	0.593	0.495	0.690	**
9	Participation in treatment and application skill	0.639	0.542	0.737	++
10	Record keeping	0.733	0.636	0.831	++
Order No	Control 2 Group (2017) N=33 average 59.32 Order of topics	Ridit points	Bottom limit	Top limit	
1	**Postnatal medicine application**	**0.346**	**0.246**	**0.447**	--
2	**Obstetric patient admission**	**0.381**	**0.281**	**0.482**	--
3	**Breast-feeding control**	**0.395**	**0.295**	**0.496**	--
4	Monitoring labor	0.450	0.350	0.551	*
5	Newborn care	0.453	0.353	0.554	*
6	Determination and application of the treatment convenient for the need	0.465	0.364	0.565	*
7	NST application	0.542	0.441	0.642	**
8	Participation in treatment and application skill	0.545	0.445	0.646	**
9	**Evaluation of APGAR score**	**0.696**	**0.596**	**0.797**	++
10	**Record keeping**	**0,726**	**0,626**	**0,827**	++

-- Ridit point is lower than 0,5 and limit values do not include 0,5
* Ridit point is lower than 0,5 and limit values include 0,5
** Ridit point is higher than 0,5 and limit values include 0,5
++ Ridit point is higher than 0,5 and limit value is also higher than 0,5

Table 2. Comparison of ridit points of the control group students

Subject no	Comparison in the control groups for 2016 (reference)-2017 years	Ridits	Z
1	Obstetric patient admission	0.409	-1.818
2	NTS application	0.560	1.197
3	Monitoring labor	0.520	0.396
4	**Postnatal medicine application**	**0.397-**	**-2.050**
5	**Evaluation of APGAR score**	**0.634+**	**2.671**
6	**Breast-feeding control**	**0.250-**	**-4.979**
7	**Newborn care**	**0.397-**	**-2.059**
8	Determination and application of the treatment convenient for the need	0.511	0.215
9	**Participation in treatment and application skill**	**0.319-**	**-3.601**
10	Record keeping	0.437	-1.258

Table 3. Order of ridit points of the students in the intervention group

Order no	Experiment 1 group (year 2016) N=31 Average grade 81.48	Ridit points	Bottom limit	Top limit	Experiment 2 group (year 2017) N=46 Average grade 68.78	Ridit points	Bottom limit	Top limit
1	**Postnatal exercises**	**0.316**	**0.213**	**0.420**	**Pregnancy test examining skill**	**0.352**	**0.267**	**0.437**
2	**Pregnancy test examining skill**	**0.374**	**0.271**	**0.478**	**Obstetric patient admission**	**0.398**	**0.313**	**0.483**
3	**Monitoring labor**	**0.384**	**0.280**	**0.487**	Lochia discharge monitoring	0.419	0.334	0.504
4	**NST application**	**0.394**	**0.290**	**0.498**	Monitoring labor	0.428	0.342	0.513
5	**Postpartum bleeding monitoring**	**0.395**	**0.292**	**0.499**	Fundal massage	0.457	0.372	0.542
6	Preparation for delivery	0.408	0.304	0.512	Monitoring frequency in postnatal care	0.469	0.384	0.554
7	Obstetric patient admission	0.434	0.330	0.538	Postpartum bleeding monitoring	0.470	0.385	0.555
8	Postnatal medicine application	0.434	0,330	0,538	Initial care for the newborn	0.474	0.388	0.559
9	Postnatal contraception	0.453	0.350	0.557	Fundal control of uterus	0.491	0.405	0.576
10	Fundal massage	0.459	0.355	0.563	Evaluation of the newborn	0.499	0.414	0.584
11	Fundal control of uterus	0.478	0.374	0.581	NST application	0.499	0.414	0.584
12	Evaluation of the newborn	0.488	0.384	0.591	Examining the signs for the commencement of delivery	0.499	0.414	0.584
13	Examining the signs for the commencement of delivery	0.507	0.404	0.611	Monitoring frequency in prenatal care	0.504	0.418	0.589
14	The signs of danger in pregnancy	0.532	0.429	0.636	Postnatal medicine application	0.520	0.435	0.605
15	Lochia monitoring	0.538	0.434	0.642	The signs of danger in pregnancy	0.520	0,435	0,605
16	Pregnant examination/Leopold's maneuvers	0.552	0.448	0.656	Information and consultancy	0.524	0.439	0.609
17	Information and consultancy	0.567	0.463	0.671	Breast-feeding training	0.528	0.443	0.614
18	Initial care for the newborn	0.567	0,463	0,671	Postnatal exercises	0.528	0,443	0,614
19	Perineum care	0.567	0,463	0,671	The signs of separation of placenta	0.532	0.447	0.617
20	The signs of separation of placenta	0.586	0.483	0.690	Evaluation of APGAR score	0.532	0,447	0,617
21	Monitoring frequency in prenatal care	0.592	0.488	0.696	Pregnant examination/Leopold's maneuvers	0.533	0,447	0.618
22	Monitoring frequency in postnatal care	0.597	0.493	0.700	Preparation for delivery	0.533	0,447	0,618
23	**Evaluation of APGAR score**	**0.616**	**0.512**	**0.720**	Postnatal contraception	0.549	0.464	0.634
24	**Breast care**	**0.631**	**0.527**	**0.735**	**Breast care**	**0.612**	**0.527**	**0.697**
25	**Breast-feeding training**	**0.631**	**0,527**	**0.735**	**Perineum care**	**0.629**	**0.544**	**0.714**

Table 4. Comparison of ridit points of the students in the intervention group

Subject no	Comparison expeiment1-experiment2	Ridit	Z
1	**Monitoring frequency in prenatal care**	**0.34-**	**-3.79**
2	**Obstetric patient admission**	**0.38-**	**-2.88**
3	Pregnant examination/Leopold's maneuvers	0.42	-1.88
4	**Pregnancy test examining skill**	**0.36-**	**-3.25**
5	NST application	0.52	0.49
6	**Information and counseling**	**0.39**	**-2.59**
7	The signs of danger in pregnancy	0.42	-1.99
8	Preparation for delivery	0.54	1.05
9	Examining the signs for the commencement of delivery	0.42	-1.95
10	Monitoring labor	0.43	-1.53
11	**The signs of separation of placenta**	**0.40-**	**-2.42**
12	**Initial care for the newborn**	**0.35-**	**-3.42**
13	**Evaluation of APGAR score**	**0.37--**	**-3.00**
14	**Monitoring frequency in postnatal care**	**0.33**	**-3.95**
15	Fundal control of uterus	0.44	-1.52
16	Fundal massage	0.43	-1.75
17	Postpartum bleeding monitoring	0.51	0.16
18	**Lochia discharge monitoring**	**0.33-**	**-3.95**
19	Postnatal medicine application	0.51	0.29
20	Perineum care	0.51	0.25
21	Breast care	0.43	-1.70
22	**Breast-feeding training**	**0.34-**	**-3.77**
23	Evaluation of the newborn	0.44	-1.42
24	**Postnatal exercises**	**0.64+**	**3.18**
25	Postnatal contraception	0.53	0.66

Annex 1. Birth And Women's Diseases Nursing Course Clinical Practice Student Assessment Form.

Professional knowledge and skills	Students and their answers														
	N:1	N:2	N:3	N:4	N:5	N:6	N:7	N:8	N:9	N:10	N:11	N:12	N:13	N:14	N:15
a-Theoretical information about the unit he works															
1.Obstetric patient acceptance (5p)															
2.NST application (5p)															
3.The follow-up of the birth action (5p)															
4.Postpartum drug application (5p)															
5.Apgar skore evaluation (5p)															
6.Lactation control (5p)															
7.Newborn care (5p)															
b-Determining and applying appropriate care (30p)															
c-Treatment involvement and application skill (25p)															
d- Record keeping (10 p)															

ANNEX 2. Gynecology nursing clinical practice evaluation form

Guide items	Students and their answers														
	N:1	N:2	N:3	N:4	N:5	N:6	N:7	N:8	N:9	N:10	N:11	N:12	N:13	N:14	N:15
1. Gynecological patient admission															
2. Monitoring frequency in prenatal care															
3. Obstetric patient admission															
4. Physical exam															
5. Pregnant exam / leopold maneuver															
6. Laboratory ınvestigations ınquiry															
7. Pregnancy tests ınquiry															
8. NST application and ınterpretation															
9. Information and consulting															
10. Hazard signs in pregnancy															
11. Preparation for birth															
12. Query birth starting signs															
13. Follow up of the birth process															
14.Symptoms of separation of the placenta															
15. First care of the newborn															
16. Apgar score evaluation															
17. Monitoring frequency in postpartum care															
17.1. Mother's evaluation in postpartum care															
18. Fundus control frequency of the uterus															
18.1. Fundus control of the uterus															

18.2. Fundus massage															
19. Postpartum hemorrhage / duchia tracking															
19.1. Postpartum drug applications															
20. Perineum care															
21. Breast care															
22. Breastfeeding training															
23. Newborn evaluation															
24. Postpartum exercises															
25. Postpartum contraception															

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