مقایسه روش‌های تعلیمی و ساختاری بر رضایتندی دانشجویان

یکی از بهترین روش‌های تدریس، روش تلفیقی، است که می‌تواند بهبودی در رضایتندی دانشجویان و جذب‌نگاری در طرح‌های تدریسی بیافزاید.

پیشینه: در آزمایش‌های اخیر، بهبود در رضایتندی و ارتباط دانشجویان با واحدهای آموزشی، از طریق مبناهای الجابجایی و تلفیقی، گزارش شده است.

هدف: این مطالعه با ارزیابی تأثیر روش‌های تدریسی افرادی و گروهی بر رضایتندی و ارتباط دانشجویان با آموزش غیرمکثوفی، ترکیبی و تلفیقی، انجام شد.

مکانیک: یکی از مؤسسات آموزش عالی مشهد، ایران، به صورت تصادفی، دانشجویان داروسازی سطح دکتری در طرح انجام شد. تعداد دانشجویان در گروه اصلی 121 نفر بودند که به صورت تصادفی به دو گروه تعلیمی تقسیم شدند.

یافته‌ها: نتایج نشان داد که دانشجویان در گروه تلفیقی بهتر از نظر رضایتندی و ارتباط با آموزش غیرمکثوفی و ترکیبی بهتر عمل می‌کردند.

clusão: این مطالعه نشان داد که روش تلفیقی بهترین روش برای تقویت ارتباط دانشجویان با آموزش غیرمکثوفی و ترکیبی است.

کلمات کلیدی: روش تلفیقی، روش ترکیبی، آزمون رضایتندی

بیک کاروان: فیزیوپاتولوژی اکثریت طلباء، بهبودی رضایتندی طلباء و افزایشی ارتباط در طرح یافته شد.

رها شدن: این مطالعه نشان داد که روش تلفیقی بهترین روش برای تقویت ارتباط و رضایتندی طلباء است.

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INTRODUCTION

An important step in medical training is pathophysiology level. This step is intermediate between basic science and practical training courses. In this level signs and symptoms of disease and diagnostic methods is taught. According to the importance of learning before medical training, every strategy and method that raises the level of education at this point helps improve training. One of the important questions between university teachers is: whether teaching method based on speech is enough to educate students and enhance their motivation to study or not. Currently teaching based on lecture method is most commonly used in medical courses. One of the main aspects of effective teaching is an evaluation of the learning process and clinical training. It helps identify strengths and weaknesses of the training (1). Teaching through speech is unilateral transfers the content from the teachers to the students. In this way, students will receive a high volume of content in a short time.

The disadvantage of this method of teaching is lowering the level of material retention, fatigue and malaise students and loss of motivation to study (2). Problem based learning (PBL) is one of the valid methods of teaching (3). In this way a case is presented and the students respond to questions step by step and finally come to recognize. This way causes more participation of the students. Instead of being a passive listener, a student is actively participating in the discussion. Studies have shown that Students in PBL method have Greater emphasis on the use of journals and the Internet and laboratory. Also Studies Resource chosen by students themselves and the sense of competition among students is high in this method (4).

In a study conducted at Harvard University Students shows that the durability of the material in PBL method was higher than conventional teaching methods and the scores were higher and stress was less (5).

Problem-based learning is not a new strategy, however, this student-centered method is widely used as a teaching method preferred by universities (6). A study on 45 female students studying in the 5th semester of basic science course, showed that: In student-centered teaching methods students' grades and level of interest as

Comparison of Blended and Lecture Teaching Methods on Satisfaction in Introduction to Clinical Medical Students compared to Lecture was more (7).

On the other hand, the results of some studies found that students who are using PBL compared to the ones who are using the conventional method are less prepared for their exams (8-10).

Research has shown that the blended method is the most effective teaching method, (3) by merger lectures with case presentation and discussion can be used of the advantages of both methods (11).

In earlier studies, this method is used in the teaching of physiology (12), drug administration skills (3), and teaching critical topics for medical students (2), and teaching biochemistry (13).

In this study, we examined blended method with the conventional teaching methods on student satisfaction.

METHODS

This descriptive –analytical study was conducted during 2015-2016 to 121 pathophysiology level of medical students. All medical students in pathophysiology level during 2015-2016 were enrolled. The subjects taught were divided into two groups. According to the opinion of the teachers Lessons were at the same level. In terms of difficulty and complexity. In the first group, the conventional lecture method and in the second group the blended method was used. In blended method in addition to lectures at the end of the debate, a case was presented and students answered step by step to the questions about signs, symptoms and diagnostic approach.

The data were collected via researcher made questionnaire. The questionnaire included two parts. Part 1 demographic question and part 2, 6 item regarding satisfaction. Part 2 included positive effect and negative effect. Positive effect, including: more interest in class, better knowledge perduration, better relationship between teachers and students, better explanation and more friendly atmosphere of class. Negative effect, including: more inducing stress and more lesson difficulty. The questionnaire was based on Likert-style. Rating questionnaire items were: very low, low, medium, high and very high. Its validity was confirmed by the comments of the Department of Nephrology and the reliability was confirmed by the test retest method.

EXCEL software for data entry and for data analysis, SPSS Ver.16 was used. For statistical analysis Likert scale by using t-test were used.

Table 1. Frequency distribution and percentage of students' satisfaction about blended teaching method

<table>
<thead>
<tr>
<th></th>
<th>Low and very low</th>
<th>Average</th>
<th>Hard and very hard</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>more interest to class</td>
<td>17(14%)</td>
<td>29(24%)</td>
<td>75(62%)</td>
<td>3.6</td>
<td>0.987</td>
</tr>
<tr>
<td>better knowledge perduration</td>
<td>14(11.5%)</td>
<td>19(15.7%)</td>
<td>88(72.8%)</td>
<td>3.45</td>
<td>0.974</td>
</tr>
<tr>
<td>better relationship between teachers and students</td>
<td>13(10.7%)</td>
<td>37(30.6%)</td>
<td>71(58.7%)</td>
<td>3.63</td>
<td>0.976</td>
</tr>
<tr>
<td>better explanation</td>
<td>10(8.3%)</td>
<td>28(23.1%)</td>
<td>83(68.6%)</td>
<td>2.56</td>
<td>1.347</td>
</tr>
<tr>
<td>more friendly atmosphere</td>
<td>15(12.4%)</td>
<td>49(40.5%)</td>
<td>57(47.1%)</td>
<td>3.79</td>
<td>0.957</td>
</tr>
<tr>
<td>more stress</td>
<td>50(41.3%)</td>
<td>12(9.9%)</td>
<td>59(48.8%)</td>
<td>3.88</td>
<td>1.018</td>
</tr>
<tr>
<td>lesson to look harder</td>
<td>33(27.3%)</td>
<td>43(35.5%)</td>
<td>45(37.2%)</td>
<td>2.69</td>
<td>1.096</td>
</tr>
</tbody>
</table>
RESULTS

121 students were enrolled in this study. 63 were female (52%) and 58 were male (48%). They were aged between 20-25 years. According to the questionnaire results as shown in Table 1, Students commented that this method increased the amount of high and very high interest (62%), more interesting and more friendly atmosphere of class (47.1%), more interaction between teachers’ and students (36.7%), better explained by the teacher (68.6%) and more durable material (72.9%). On the other hand, 41.3% of the students commented that this method increases the stress in a low amount and 9.9% in an average amount and 40.2% in high and very high amount. The students commented that this method makes the difficulty of the course content to be shown more 27.3% in a low amount and 35.5% in an average amount and 37.2% in high and very high amount. The Average of Students Comments on items one, two, three and five were more than three and This means that they had a positive opinion of this technique. The Average of comments in item six was also more than three and According to students’ comments, this method increases the stress. To assess whether this approach is appropriate or not, one sample t-test was used. It was observed that the probability is 0.000 (P< 0.05). As shown in Table 2, there were no differences between men and women in terms of satisfaction.

Table 2. Students satisfaction and relationship of students gender with satisfaction

<table>
<thead>
<tr>
<th>Student satisfaction</th>
<th>Mean ± standard deviation</th>
<th>Statistics test</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differences of opinion between sexes</td>
<td>Female</td>
<td>3.31±0.649</td>
<td>6.426</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>3.41±0.649</td>
<td>-0.871</td>
</tr>
</tbody>
</table>


discussion

The aim of this study was to evaluate the effect of blended method (speech and PBL) on the medical student’s satisfaction in pathophysiology level. According to the results of the questionnaires showed that students are satisfied and consider the use of this method, increasing interest in lessons, more friendly atmosphere of class, students has more interaction with teachers, explain the lesson better and increase knowledge perdurability. The results of this study matched with the results of a study that was conducted by Moore GT on Harvard medical students. According to this study students believed that Problem-based learning promotes learning and increasing content perdurability and reduced stress (3).

In another study by Kauliman and his colleagues concluded that Students using PBL have a more positive attitude towards their teachers and also have a greater incentive to learn more (14).

In another study conducted at the University of McGill, Canada, it was shown that students in a PBL group compared to the conventional education elaborate more and responds better to questions but, commit more mistakes (15).

In a study that was conducted on medical students by Jafari was shown that blended teaching method of strengthening internal motivation, enhances learning and student satisfaction can be used in teaching biochemistry (13). Similarly, in a study by the Khosheivae Asl and his colleagues on medical students of the fifth and final year satisfaction of PBL was concluded that students prefer this method to the conventional method of teaching (16).

In another study on 42 medical students who were passing the embryology course, the effects of PBL on students’ satisfaction was enrolled and the result was that this method increases focus and satisfaction of the students (17).

In a study that was enrolled by Moradi and her co-workers and compared the PBL method and the conventional method of critical thinking in nursing students, the result was that both conventional and problem-based clinical educations significantly improved nursing students’ critical thinking (18). The strength of this study is to use two methods of lecture and PBL and benefits of each approach. Another strong point is the high volume of samples. Limitations of this study include the impossibility of dividing students into two groups (intervention and control) due to the disruption of the teaching plan and lack of coordination in education of a high volume of students. Another disadvantage is the lack of uniformity in the courses offered in the two groups. However, we tried making the degree of difficulty and complexity of the subjects in both groups the same as each other.

According to the results of this study blended teaching method increased students’ satisfaction. This method can be used in teaching kidney physiopathology. Studies are needed to determine the effects of blended method, on the other medical courses, as well as case-control studies on clinical groups are recommended.

acknowledgments

We appreciate the different faculties of Mashhad University of Medical Science involved in this study.

Conflict of interest: The authors declare no conflict of interest.
REFERENCES