

Quality of Clinical Education in Birjand Medical School from the Students Perspective

Background: A main factor to change the education from static to dynamic situations is continuous evaluation of academic systems. This study is performed to analyze the students' viewpoints in terms of the quality of clinical education in Birjand University of Medical Sciences.

Methods: This is a descriptive and analytical study. The statistical population consists of 135 individuals including 64 interns and 71 staggers chosen from the students who had spent all their clinical courses. A census method was performed. Clinical training in three areas of scientific quality, training management, communication and consultation were studied.

Results: Mean age of the students was 25.2 ± 1.3 years, their average score was 16.8 ± 0.86 . 61.5% of them were female, 62.2% single and 88.9% exotic. Regarding the students' evaluations, the highest and lowest average scores are, for academic proficiency in Neurology (25.3 ± 4.1) and ENT (12.3 ± 5.7) respectively, for the Educational Management in Infectious Diseases (29.1 ± 5.1) and Orthopedic (20.9 ± 6.9) and for Communication and Consultation, in Pediatrics (20.5 ± 4.4) and psychology (14.6 ± 5.9), which shows the education quality is relatively good (53.5%).

Conclusions: This study showed that the students' evaluation on the quality of clinical education in different sections is relatively good. Necessary interventions are required in low-quality sections. Specifically, for the scientific mastery, this must be done in ENT, orthopedic, and psychology, for the educational management, in orthopedics, ENT, psychology and for the area of communication and consultation in psychology, ENT, and surgery. This intervention must be done by the university officials.

Keywords: quality of education, clinical education, assesment

کیفیت آموزش بالینی اساتید دانشکده پزشکی دانشگاه علوم پزشکی بیرجند از دیدگاه دانشجویان

زمینه و هدف: در هر نظام آموزشی یکی از عوامل اصلی که باعث سوق آموزش از حالت ایستا به مسیری پویا و فعال می شود ارزشیابی صحیح و مداوم برنامه های آموزشی است. لذا این مطالعه با هدف بررسی دیدگاه دانشجویان پزشکی نسبت به کیفیت آموزش بالینی دانشگاه علوم پزشکی بیرجند در سال ۱۳۸۸ انجام گردیده است.

روش: این پژوهش از نوع توصیفی - تحلیلی بوده و جامعه آماری ۱۳۵ نفر (۶۴ اینترنت، ۷۱ استاژ) از کارورزان و کارآموزان پزشکی که کلیه بخش های بالینی خود را سپری نمودند و به روش سرشماری انجام شد. کیفیت آموزش بالینی در سه حیطه تسلط علمی، مدیریت آموزشی، ارتباط و مشاوره مورد بررسی قرار گرفت.

یافته ها: میانگین سنی دانشجویان مورد مطالعه $25/2 \pm 1/3$ سال، معدل آنها $16/8 \pm 0/86$ ، $61/5\%$ زن، $62/2\%$ مجرد و $88/9\%$ غیربومی بودند. بیشترین میانگین نمره دیدگاه دانشجویان در حیطه "تسلط علمی" به ترتیب مربوط به بخش اعصاب ($25/3 \pm 4/1$) و ENT ($12/3 \pm 5/7$)، در حیطه "مدیریت آموزشی" بخش عفونی ($29/1 \pm 5/1$) و ارتوپدی ($20/9 \pm 6/9$) و در حیطه "ارتباط و مشاوره" بخش اطفال ($20/5 \pm 4/4$) و روان پزشکی ($14/6 \pm 5/9$) بود. کیفیت آموزش از دیدگاه دانشجویان نسبتاً خوب می باشد ($53/5\%$).

نتیجه گیری: این پژوهش نشان داد که، کیفیت آموزش بالینی اساتید در بخشهای مورد بررسی از دیدگاه دانشجویان مورد مطالعه، نسبتاً خوب بود که لازم است مداخلات لازم در بخشهایی که کیفیت آموزش بالینی از دیدگاه دانشجویان در حد قابل قبول نمی باشد (درحیطه تسلط علمی بخشهای ENT، ارتوپدی و روانپزشکی؛ اما در حیطه مدیریت آموزشی بخش های ارتوپدی، ENT و روانپزشکی و در حیطه ارتباط و مشاوره بخشهای روانپزشکی، ENT و جراحی) توسط مسوولین آموزش دانشگاه صورت پذیرد.

واژه های کلیدی: کیفیت آموزش، آموزش بالینی، ارزشیابی

کیفیه التعليم السريري عند اباتذه كليه الطب في جامعه بيرجند للعلوم الطبيه من خطلل نظره الطلاب في منه ١٣٨٨-١٣٨٩ التعليمه

التعميد و الهدف: احدى العوامل التى تجعل كل نظام تعليمى. نظاماً متنامياً و فعالاً هو التقييم الصحیح و المداوم للبرامج التعليميه. لقد اجريت هذه الدراره بهدف تحليل آراء طلاب الطب تجاه كفيته التعليم السريرى فى جامعه بيرجند للعلوم الطبيه.

الاطلوبه: إن هذه الدراره من نوع «التوصيف التحليلى» و عدد المشركون ١٣٥ شخصى (64 extern و ٧١ متاجر) الذين قد انما مرحلتهم التعليميه. تم تقييم الكفيته التعليميه فى ثلاث محاور: ١. التسلط العلمى ٢. الاداره التعليميه ٣. الإرتباط و المشاوره

النتائج: كان المعدل السنى لدى الطلاب $25/2 \pm 1/3$. معدلهم $16/8 \pm 0/86$. $61/5\%$ اناث، $62/2\%$ عزب. $88/9\%$ غير محليين. المعدل الاقصى فى محور التسلط العلمى قد تعلق بقسم الاعصاب $25/3 \pm 4/1$ و الاذنى قسم ENT $12/3 \pm 5/7$. المعدل الاقصى فى محور الاداره التعليميه قد تعلق بقسم الفونه $29/1 \pm 5/1$ و الاذنى قسم الارتبىرى $20/9 \pm 6/9$. المعدل الاقصى فى محور الاداره التعليميه قد تعلق بقسم الفونه $20/5 \pm 4/4$ و الاذنى قسم الارتبىرى $14/6 \pm 5/9$ كفيته التعليم تعتبر جيده ($53/5\%$)

الاستنتاج: تدل هذه الدراره على ان كفيته التعليم كانت جيده من رويه الطلاب المشركون فى هذه الدراره و يجب اعمال تغييرات فى المجالات التى لم تكن جيده (فى محور التسلط العلمى اقسام الارتبىرى، الامراض النفسيه و ENT و فى محور الاداره التعليميه اقسام الارتبىرى و الامراض النفسيه و ENT و اما فى محور الإرتباط و المشاوره اقسام الامراض النفسيه و الجراحه و ENT) من قبل المسئولين فى الجامعه.

الكلمات الرئيسيه: الكفيته التعليميه، التعليم السريرى.

بیرجند یونیورسٹی آف میڈیکل سائنسس کے اساتذہ پر کلینیکل تدریس کے اثرات، طلباء کے نظریات کاجائزہ

بیک گراؤنڈ: ہر تعلیمی نظام میں ایک امر جو تعلیم کو جامع اور شفاف بناتا ہے وہ موازنے اور جانچ پڑتال کا صحیح نظام ہے جس سے تعلیمی نصاب کی جانچ پڑتال ہوتی رہے۔ اسی غرض سے یہ تحقیق انجام دی گئی ہے۔ یہ تحقیق دوہزار نو میں طلباء کی نظر سے انجام دی گئی ہے۔

روش: اس تحقیق میں ایک سو پینتیس افراد شامل تھے۔ اس میں چونسنفہ انٹرن اور اکہتر طلباء نے شرکت کی۔ ان میں تمام طلباء نے اپنی کلینیکل تعلیم مکمل کر لی تھی۔

یہ تحقیق تدریسی سطح، تعلیمی مینجمنٹ، اور مریضوں سے رابطہ اور کونسلنگ کی سطح پر کی گئی۔

سفارشات: اس تحقیق میں جو کہ طلباء کی نظر سے انجام پائی اساتذہ کا تدریسی معیار اچھا تھا۔ البتہ جن شعبوں میں جیسے ای این ٹی، آرٹھوپیدیک اور نفسیات میں اساتذہ کی روش طلباء کی نظر میں اچھی نہیں تھی ان شعبوں میں یونیورسٹیوں کو مزید کام کرنے کی ضرورت ہے اور اس پر توجہ دی جانی چاہیے۔

کلیدی الفاظ: تدریس کا معیار، کلینیکل تدریس و تعلیم

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INTRODUCTION

In today's complex world education is a requirement for everyone. It is in the shadow of education where the human essence of man is discovered and he/she is distinguished from other creatures. On the other hand, communities can grow and evolve. Today, no nation can survive without using modern sciences and technologies. There will be no growth and development, unless using an academic system which is excellent both from the point of view of quality as well as quantity. Higher education which is a part of the educational system is responsible for innovations, creativity, initiation and training innovative skilled manpower in various needed fields and has a key and vital role in the national development of each country.

Achieving these goals necessitates a fundamental improvement and modification in higher education. All activities should be constructive and coordinated in the science direction. Expert human resources are needed who are familiar with the modern technology. The new viewpoints and attitudes in the area of educational theories have produced new approaches in medical science education. This needs a continuous quality improvement in educational policies and regulations. According to one of the existing approaches i.e. outcome-based education, the higher education system should train the student based on their future work needs and also based on the achievement of the graduates [1].

The educational system acts as a dynamic and purposeful phenomenon which has quantitative and qualitative dimensions [2]. Quality in higher education is a dynamic multidimensional variable which its continuous improvement should always be placed in the program [3]. Continuous improvement of quality of education requires the assessment to be done on each of the elements (inputs, process, products, outputs and results) forming the educational system [4]. Accordingly, the quality of inputs can represent the performance of the educational system. Among the inputs, three factors i.e. learner, teacher and curriculum are important. Evaluation of each of these factors could have a significant role in improving the quality of the educational system [4,5]. University professors are one of the major parts and how they function plays a fundamental role in the outcomes of educational systems. Accurate evaluation can predict the professor's performances. If the feedback of these evaluations are given to the professors, after assessing their weaknesses and strengths, they can improve the quality of their educational activities [6]. Teacher evaluation is to determine the level of success in achieving educational goals. The correct performance needs a good data collection from the educational activities, setting good criteria, and finally judging about the professors' successes [7]. Assessment of the university faculties are done in various methods such as evaluation by students, self-evaluation, evaluation by the group manager, colleagues, school administrators and so forth. One of the most common evaluation methods in most countries, including Iran, is evaluation by students [8,9]. Each faculty member in terms of capabilities, activities, interests, diagnosis, and institution needs may mostly operate in one or more areas. However, his main duty is education and teaching which its quality is provided by motivation, innovation, and increasing the efficiency. Medical education

is a division is related to the health affairs, and due to its fascination, is an important issue. The society's health is assumed to be related to the quality of medial education and health services [10]. Because of great importance of this issue, this research is concentrating on the quality of clinical education of the professors in the School of Medicine in Birjand University of Medical Sciences. The medical students' viewpoint has the following specific objectives: Determining the personal and professional IDs of the students at the School of Medicine, Birjand University of Medical Sciences, Determining the students' views about the of scientific mastery, educational management, communication and consultancy of Faculty of Medicine, Birjand University of Medical Sciences Determining the relationship between students' views about the quality of clinical training and education with their personal details, comparing the scores of students in different sections, determining the relationship between students' views about the quality of clinical training with a score of their interest in various sections.

METHODS

Since the research goal is to extract the students' views about the quality of clinical education of the professors, we have used the correlation approach and then analyzed the results. The study society consisted of all medical sciences students who were interns and externs in 2000-2003. This society included 80 interns and 70 externs. Our inclusion criteria was that the student having passed all the courses of externship. In other words, the student who had not passed either of these sections was excluded from the study.

Research tools

After initial studies, a questionnaire was made to test the validity of the idea. Some books and scientific articles as well as faculty members' viewpoints were used. Internal consistency (alpha coefficient) was employed to determine the reliability of the method. This coefficient was for the entire questionnaire; 89 % and 79% for each of the areas of academic proficiency, 71% of educational management, communication and consultation was 79%. Number of questions in addition to the demographic questions (sex, age, marital status, education, place of birth, grade point average) was in the area of scientific mastery (6 questions), learning management (7 questions) and communication and counseling (5 questions). These questions were scored based on the 5-degree Likert scoring scale. Then referring to the sections of Vali-Asr Hospital and Imam Reza Hospital, the questionnaire was completed for all extern-2 students and interns. After collecting the data the SPSS statistical analysis software was used. It is notable that we determined and classified the level of quality of clinical education of the teachers based on scores earned in the three levels of educational quality; weak (score less than 50 percent of total score), moderate (score between 50 to 75 % of the total score) and good (score over 75 percent of the total score). After collecting the questionnaires and entering data in the SPSS software and by applying descriptive and inferential statistical tests, one-way ANOVA, t-test and Pearson correlation analysis were used.

RESULTS

To achieve the first objective of the study which was to

determine the personal and professional information of the students in the school of Medicine, University of Medical Sciences, the results we analyzed the data. They showed that 5.61 percent of students were female, and 2.62% single, 9.88 percent non- Native, and 6.52 percent of Intern.

The second goal of the research was the students' views about the scientific mastery, educational management, communication and consultancy of the Faculty members of the school of Medicine in University Birjand. The findings showed that the average of the student's viewpoints about the quality of clinical education professors in the field of scientific mastery is 8.22 and in the field of educational management 3.26 and the area of communication and consultation 8.18. This shows that the situation of the class management is better than the mastery situation as well as communication and consultation. Therefore, it is necessary that the professors modify their communications, scientific levels and the method of presentation. The results showed that the highest average score of 30 points of the scientific mastery, respectively belongs to the neurology sections (1.4 ± 3.25), infection diseases (4.4 ± 07.25), eyes (5.4 ± 7.24) and the lowest score in this area to the ENT section (7.5 ± 3.12), orthopedic (5.4 ± 2.17) and psychiatry (3.6 ± 2.19). But in the field of educational management, the results show that there are meaningful relations between academic proficiency of the clinical teachers and the age of students (table 1). There is no significant relation between gender and

the quality of education ($P > 0.05$, table2).

the results showed that the highest average score of 35 points, respectively, is related to infection diseases (1.5 ± 1.29), neurology (1.5 ± 2.28), women (7.5 ± 28) and the lowest score in this area relates to the orthopedic sections (9.6 ± 9.20), ENT (3.7 ± 1.22) and psychiatry (1.7 ± 7.22). The results obtained showed that in the area of communication and consultation, the highest average score of 25 points, respectively, is related to pediatrics (4.4 ± 5.25), neurosurgery (7.3 ± 5.20), eye (1.4 ± 3.20), and the lowest score in this area is related to psychiatric (9.5 ± 6.14), ENT (1.5 ± 5.15) and surgery (6 ± 8.16). The third goal of gathering the students' viewpoints was to determine the relation of the quality of clinical education to their personal and academic IDs.

Table 1: The correlation between the faculty members' obtained score and the age and average score of students

The Quality of clinical education aspects	age	Average score
Scientific mastery	$r = -0.17$ $p = 0.03$	$r = 0.03$ $p = 0.6$
Educational Management	$r = -0.006$ $p = 0.9$	$r = 0.04$ $p = 0.5$
Communication and Consulting	$r = -0.3$ $p = 0.6$	$r = 0.05$ $p = 0.5$
Total score	$r = -0.07$ $p = 0.4$	$r = 0.04$ $p = 0.5$

Table 2: The average score for faculty members' quality of education from the students' view point regarding the students' gender

The Quality of clinical education aspects	gender	N	Mean ±SD	T-test score
Scientific mastery	Male	52	22.7 ±3.3	$T = -0.234$ df=133 $p=0.8$
	Female	83	22.8 ±3.6	
Educational Management	Male	52	26.1 ±4.4	$T = -0.234$ df=133 $p=0.7$
	Female	83	26.4 ±4.4	
Communication and Consulting	Male	52	18.5 ±3.4	$T = -0.234$ df=133 $p=0.4$
	Female	83	19.01 ±3.3	
Total score	Male	52	67.4 ±10.9	$T = -0.234$ df=133 $p=0.6$
	Female	83	68.3 ±11.1	

Table 3: The average score for the quality of education of faculty members from the students' view point regarding their grade of Student

The Quality of clinical education aspects	area	N	Mean±SD	T-test score
Scientific mastery	Stager	64	23.3 ±3.4	$T=1.63$ df=133 $p=0.1$
	intern	71	22.3 ±3.5	
Educational Management	Stager	64	26.8 ±4.6	$T=1.257$ df=133 $p=0.2$
	Intern	71	25.8 ±4.8	
Communication and Consulting	Stager	64	19.0 ±3.4	$T=0.686$ df=133 $p=0.4$
	Intern	71	18.6 ±3.4	
Total score	Stager	64	69.2 ±10.9	$T=1.27$ df=133 $p=0.2$
	intern	71	66.8 ±11	

DISCUSSION

The higher educational system as a dynamic, intelligent and purposeful system, which is faced with new challenges qualitative and quantitative. Sustainable development requires a system of harmonious, balanced and proportionate in both quantitative and qualitative dimensions parallel to one another. Quantitative expansion of higher education without regarding quality of development has consequences such as educational failure, scientific dependence brain drain, lack of entrepreneurship and weakness of knowledge production [11]. On this basis, the present study was conducted to gather and examine the medical students' views about the quality of Clinical education of the professors of Birjand University of Medical Sciences. The results showed that the mean score of students in the area of scientific mastery was $5/3 \pm 8/22$ out of 30 scores; in the field of educational management $7/4 \pm 3/26$ out of 35; in the area of communication and consultation $4/3 \pm 8/18$ out of 25 and the total score for quality of clinical training in these three areas was $11 \pm 9/67$ out of 90.

Assessments showed that the overall quality of clinical education was fairly good (53.3% of the total students). Fasihi and Hosseini's study also showed that the quality of clinical education is relatively good (12,13) while Shahbazi and Khorasani, Alizadeh, Amini and Peyvandi's study showed that among the nursing and midwifery students, the view on the quality of clinical education has been negative (46,54,55,56,57). Our study results showed that, between the scientific mastery of the teachers and students' age, there is an inverse correlation in which by increasing the age of the students, their viewpoints about the professors' mastery became more negative. In none of the studied areas, a significant relation with demographic parameters was seen. A similar study was performed by Shakurnia and his colleagues on 124 nursing students in Abadan. They distributed 1407 questionnaires, and showed that there is a significant relationship between average student scores and the teacher's evaluation. This dependency, which means that 91% of poor students to evaluate professors gave higher (13) evaluation score. The difference between our study and that performed in Abadan is interesting. First, they declare that the dependence is weak and ignorable. Second, the number of students (samples) is higher in our study, and therefore the results are more reliable and logical. In another study [14], a zero correlation between the professors' evaluation scores and the students' scores was reported which verifies our findings.

M. Amini and M. Honardar [8] in a recent paper sowed that students' view for teacher evaluation is a common method. They concluded that since students' opinion about their teachers is influenced by some factors which have no close relationship with the evaluation subject and is merely related to other factors, using other evaluation methods such as self evaluation and peer evaluation seems to be necessary.

Published studies from 1971 to 1988 concerning the evaluation of teachers by students about the research, believes that most of the used source for teacher evaluation have been the students [15]. He showed that evaluation by students is reliable and

relatively with no error. Also he has declared that academic performance of the students do not play a role in the evaluation. This verifies our results. Jacobs [16] showed that academic grade of the students is not a significance factor in the evaluation. This verifies our results as well. A review of other studies on more than 400 research articles, performed in the University of Virginia, showed that there is a significant relationship between student and teacher evaluation by students [14]. These findings confirm the findings of our study. In assessing the relations between the areas of study in terms of the grades, there is a significant relation between the educational management and the grades. There is a significant relation between the given scores by the students to the clinical sections and the quality of education. Therefore it is inferred that the students' interests affects their views on the quality of clinical education in different sections. Totonchi et al. [17] study somehow verifies our results.

In a very recent paper Mahmoudi et al. [18], showed that faculty members are in good position in the view of students. Having good ethics, effective programming and a high scientific level are their three positive factors.

Conclusion: This study showed that the quality of clinical education in different sections from the perspective of students, is relatively good (3/53). Necessary interventions are required in sections where the quality of clinical education is not at an acceptable level. Specifically, for the scientific mastery, this must be done in the ENT, orthopedics and psychology sections. In educational management, this must be done in the orthopedics, ENT and psychology sections and in the area of communication and consultation in psychology, ENT and surgery units. This intervention must be done by the university academic officials.

The results of students' views showed a direct correlation between the quality of clinical education with the students' interested sections. Therefore, to motivate the students to better study an urgent need is to prepare the necessary requirements for the promotion of clinical education.

We suggest clinical studies on factors affecting the quality of training in the three areas of educational management, communication and counseling, and academic proficiency being done. Also, educational interventions for improving the quality of clinical education in sections which did not have a satisfying quality, training and development of new educating methods with the aid of teachers and students to achieve a higher quality, and further studies on the relationship between clinical training quality, teaching method, teachers' motivation, students' motivations, their interests and educational facilities are recommended by this study.

Conflict of interest: none declared.

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