Medical students' attitude of their success rate in clerkship period in Birjand University of Medical Sciences

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ABSTRACT

Background *With regard to accelerated progresses in the world of science and technology, as well as changes in the needs of the society, medical education should be a developing process. One of the main factors that can promote education from a static to a dynamic and effective state is evaluation.*
Purpose *The purpose of the present survey is to determine the rate of success of medical students passing their clerkship in Birjand University of Medical Sciences from their own views of attaining educational goals of Urology Department.*
Methods *The study is descriptive-analytical and has been performed on 50 medical students in Birjand University of Medical Sciences. Having determined the validity as well as the reliablity of the questionnaires, we used them to collect the data.*
Results *Participants were 37 men (74%) and 13 women (26%). T-test demonstrated a significant statical difference between male and female students in practical management of cases in urology ward ($p<0.03$). significant. Better practical performance was evident when the students take practical approach, in addition to looking and listening. Also, if students used various methods of teaching and learning, they would better manage cases.*
Conclusion *The rate of medical students' success in their clerkship period for educational goals of urology was good. However, providing required facilities for giving instructions on clinical skills such as educational clinical workshops, clinical skill workshops and clinical skills centre, educational films and bedside practice under supervision of professors, will promote the fulfilment of educational goals.*

Key word *EDUCATIONAL GOALS , MEDICAL STUDENTS , UROLOGY WARD*

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Introduction

The major role of higher education is to train expert human forces for the society, human forces who have the minimum ability to carry out the tasks related to their domain of activity. One of the main factors that can promote the education from a static state to a dynamic and effective one, is evaluation. One of the objectives of medical education is to enable the student to evaluate, judge, make decisions and finally to solve common problems. In other words, a medical graduate (as a general practitioner) should be able to manage his/her patients with enough knowledge of outpatient and emergency diseases which are common in his/her society. Therefore, medical schools should prepare and implement their educational programs in this respect, thus directing the students to attain the afore-mentioned goals. The purpose of the present survey is to determine the rate of success of medical students in their clerkship period in Birjand University of Medical Sciences from their own views in attaining educational goals of Urology Department.

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TABLE 1 PERCENTAGE OF MEDICAL STUDENTS' OPINION OF UROLOGIC EMERGENCY CASES

Type of disease	I have seen this	I have studied this	I have heard the lesson		I have managed this case practically	
			class	bedside	on my own	under supervision
Urogenital Trauma	86	90	92	74	70	78
Renal Stones and Colic	100	100	100	96	84	96
Testicular Torsion	40	82	92	26	24	30

TABLE 2 PERCENTAGE OF MEDICAL STUDENTS' OPINION OF NON-EMERGENCY UROLOGIC DISEASES

Type of Disease	I have seen a similar case	I have studied the topic	I have heard the discussion		I have managed a similar case	
			class	bedside	on my own	under supervision
Orchitis	40	43	48	32	29	31
Epididymitis	42	45	48	33	27	27
Pyelonephritis	48	50	50	42	43	47
Urethritis	32	42	47	23	31	30
Tumors of Kidney, Bladder & Testis	23	38	43	13	7	14
TB of Kidney & Urinary Ducts	10	37	43	3	9	11
STD	23	45	45	13	16	33
Male infertility	18	32	40	12	7	17
Varicocele	29	43	47	17	11	13
Hydrocele	35	49	48	28	19	23
Hernia	42	49	49	39	27	35

TABLE 3 PERCENTAGE OF MEDICAL STUDENTS' OPINION OF UROLOGIC PRACTICAL PROCEDURES

Type	I have seen a similar case	I have studied the topic	I have heard the discussions on this topic		I have practically managed a similar case	
			Class	Bedside	on my own	under supervision
Catheterization	100	100	94	86	100	70
Rectal Examination	78	76	84	82	86	58
Pre- & Postoperational care	24	38	26	10	0	0
U/A interpretation	100	96	90	100	100	98
Bladder Wash	36	26	60	18	26	14

Materials and Methods

The present study is descriptive-analytical. In other words, it is of internal evaluation type. The subjects comprise 50 students from Birjand Univesity of Medical Sciences out of whom 37 were men and 13 women. Information was obtained using a 19-item questionnaire of which 11 were related to non-emergency cases, 3 were related to emergency cases and 5 pertained to practical urologic tasks. Given the fact that for evaluating minimum capabilities of medical students who are passing their internship (final medical stage) an appropriate means (having validity and steadiness) is required and in view of the fact that no method has been introduced to assess this competence in our country, the director of Educational Development Center in Isfahan University of Medical Sciences on behalf of Educational Vice-presidency, had devised a tool in three steps through which one can evaluate the minimum learning necessities of medical students.

The questionnaires were distributed among the students at the same place and almost simultaneously. The significance and indispensability of giving correct answers as well as the method of answering the queries were instructed to the students before filling the questionnaires. Moreover, in order to increase the validity of the completed questionnaires, the fact that there was no need to write their names and surnames was underscored and reminded to the students. The students expressed the status of their minimum specialized learning requirements in the figure of "I have seen", "I have studied" , "I have heard" ," I have managed practically" and "I am able to manage poorly, fairly, well and excellently". Having completed and encoded the questionnaires, statistical data were introduced to the computer using PE2 software and were processed statistically using SPSS software (frequency test was used to determine frequency distribution and T-test to compare means).

Indicators were determined as the percentage of students who have seen and/or studied the items cited in questionnaires. Due to sensitivity of the issue and the fact that these are minimum required items to be learned, optimal level for "seeing" is 100%. To be able to attain the optimal level of learning, 100% of the students must see emergency cases in the hospital as well as among the outpatients. As well, the optimal level for practical management of a case is as follows: 90% of the students should have a good practical performance in managing the case and 10% should be able to manage the case excellently.

Results

The demographic data obtained from the total number of participants in the survey resulted in 37 males and 13 females. The results pertaining to students' minimum learning requirements in urology ward are indicated considering emergency/non-emergency and common/uncommon diseases separately and in the form of the following phrases : "I have seen", "I have studied", "I have heard", "I have practically managed" and "I am able to manage poorly, fairly, well and excellently". Common emergency diseases, uncommon emergency diseases and practical urologic procedures in urology division are depicted in Tables 1, 2, and 3, respectively.

TABLE 4 PRACTICAL PERFORMANCE OF 37 MALE AND 13 FEMALE STUDENTS IN UROLOGIC DISEASES

Urologic Diseases	Sex	Mean	SD
Non-emergency	Male	26.86	6.46
	Female	23.61	8.29
Emergency	Male	9.05	2.01
	Female	7.30	1.75
Procedures	Male	14.32	3.52
	Female	11.84	3.31

Table 4 shows that group T-test demonstrated no significant difference between mean practical performance of male and female students in non-emergency cases, ($T=1.45$); a significant difference between mean practical performance of male and female students in emergency cases ($T=2.87$, $P<0.008$); a significant difference between mean practical per- formance of male and female students in practical urologic procedures ($T=2.21$, $P<0.03$).

Discussion

According to the results, better practical management is evident whenever the student has already managed a case practically, in addition to seeing and hearing. If medical students are faced to different aspects of teaching and learning (studying, meeting the patient, hearing, bedside discussions, practical management etc.), they will certainly

feel more confident when approaching cases they come across and this fact has been proven in other surveys as well. For instance, it is shown that with participation of some of the medical students in practical management of hospitalised children in paediatrics ward and learning the related topics either personally or under supervision of a professor, a higher level of learning along with more enjoyment and satisfaction was obtained. Results demonstrate a considerable rise in the effectiveness of practical management of patients by medical students as the internship period progresses. That is to say, with regard to progressive experience of a medical student in approaching to different cases, the more the duration of internship, the better his/her capabilities. Results prove that in order for the minimum requirements to be learned, different teaching methods should be employed and resources, patient and disease must be available. In some medical schools, instances of diseases are not enough for the minimum requirements to be learned. Consequently, the student will not achieve essential educational goals. Such schools can increase learning output and facilitate reaching these goals by providing films, establishing clinical skills centre and organizing clinical skills workshop. Furthermore, evaluating and determining the necessity of educational programs are done through inquiring about medical students' views and this fact has been proven in various surveys (2,3).

We can conclude from this survey that the rate of achievement educational goals of Urulogy Department among medical students who were passing their internship period was good. However, providing required facilities for giving instructions on clinical skills, for example educational clinical workshops, clinical skill workshops and clinical skills centre, educational films and bedside practice under supervision of professors, will promote the fulfilment of educational goals.

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