Evaluation and comparison of clinical educational groups function and structure in Tabriz Medical Science University, 2001

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ABSTRACT

Background: *Medical education of IRAN witnessed a lot of changes in recent years. Evaluation of educational activities has been one important intervention introduced in this regard.*
Purpose: *We designed a new format and evaluated the function of educational groups of Tabriz Medical Science University at 2000*
Methods: *Educational group's structure and function of internal medicine ward, infectious disease group, urology ward and genecology ward were compromised with each other.*
Results: *There was a lot of difference between function of educational groups. In some groups, students had no pleasure from the education.*
Conclusion: *It is necessary to investigate the problems of education and solve them by regular and exact program and educational intra group evaluation.*
Key words: *EVALUATION, MEDICAL EDUCATIONAL GROUP, TABRIZ UNIVERSITY*
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Introduction

Universities are the main bodies responsible for generation and distribution of scientific knowledge and provision of high quality human resources. This critical responsibility mandates a vigorous monitoring system that consciously monitors the state of affairs to check whether the organization is on his way to achieve its goals and objectives. Universities need an accreditation system for quality control and quality improvement which enables them to fulfil their responsibilities. (1)
Evaluation helps to see what achievement an organization has reached and to what extent the preset goals has been materialized. Teaching is a bilateral exchange which affects both the teacher(s) and the students. As a teacher assess its class to see whether the students have learned what they should learn, an education system use educational evaluation as a measure to monitor the extent of its program achievement in terms of reaching the curricular goals. (2) Educational evaluating goes through its early stages of development with only 30 years old. But many models have been developed for evaluation system use educational evaluation as a measure to monitor the extent of its program achievement in terms of reaching the curricular goals. (2) Educational evaluation goes through its stages of development with only 30 years old. But many models have been developed for evaluation of education both in micro and macro level. One important area in educational evaluation which has attracted increasing attention of educators and evaluators is evaluation of Educational groups which are the main bodies directing educational programs. At present there are two major from of group evaluation: internal evaluation by the group itself and external evaluation by evaluation bodies of faculties and universities. Amy system's structures have profound effect on its function and educational groups are no different. The current study is an effort to evaluate and compare clinical educational groups function and their structures.

Materials and Methods

Internal medicine, infectious disease, Urology and obstetrics and Genecology departments participated in this study. The structure evaluation included the following areas human workforce state, physical facility wards, clinics library and other relevant units. A checklist was used for data collection on each area. The checklists were approved and provided by health ministry to

evaluate each group's educational function medical recordings (table 1)

TABLE 1. Check list for assessing medical recordings in clinical wards

1- Signature of admitting physician
2- State of medical records classification
3- Histories by the residents in ED ward in urgent admissions and its quality
4- Histories by the residents in the wards and their quality
5- Histories taken by interns in the ward and their quality
6- Histories taken by externs in the ward and their quality
7- Presence of resident's off service and on service note
8- Presence of interns off – service and on – service notes
9- Presence of extern's off – service and on – service note
10- Presence of in

were assessed and survey of learners of all levels (residents, interns and externs) was conducted.

Results

A total of 170 patients records from genecology and obstetric, Internal medicine, Urology infectious disease departments of Tabriz University of medical sciences and health services were reviewed based on a checklist (table.1). Table 2 shows the human resource of different departments.

TABLE 2. Distribution of human resource of each department

Personal	Gynecology obstetrics	Internal medicine	Infections disease	Urology
Full Professor	0	1	2	1
Associate Professor	2	9	1	1
Assistant professor	15	30	3	1
Residents	34	35	12	12
Support staff	11	25	4	8

These data were available in all departments based on the check list confirmed by ministry of health for clinical department evolution.

The last cohorts of externs, interns, and residents who attended the department completed a questionnaire on department educational function. Table 3 shows the total score of educational function based on learners view.

Table 4 shows medical recording state in detail for each participating department.

Discussion

An overview of our findings shows that the departments under study are rather similar in terms of physical facilities all of them are well equipped based on the items required b health ministry but there are differences regarding human resources.

All groups met the criteria required by ministry of health in terms of facilities equipment and spaces by up to 95%-100%.

A view of faculty members degrees (professor, Associate professor And Assistant professor) shows that all departments have a long way to optimal state of a balanced distribution among different degrees, with promotion from assistance professor to professor Internal medicine and urology department should move from more non tenure faculty members to more tenure ones. A study by Weitzman et all. showed extensive variation in medical records and patients' records loss in different primary care clinics. They recommended that researcher should first note the medical recording practices and then use medical records as source of information if they found the practices satisfactory (6).

TABLE 3. Total score (Max 20) of educational function in Gynecology obstetric, internal Medicine Infectious Disease, Urology departments of Tabriz University of Medical Sciences from Learners point of view

Score of department	Residents opinions	Interns opinions	Externs opinions
Gynaecology	9.08	11.61	10.86
Internal Medicine	8.55	12.09	9.85
Infectious disease	15.4	12.47	13.24
Urology	15	-	13.31

TABLE 4. Results of 170 medical records review in terms of recording quality

Departments / Items			Internal Medicine	Urology	Gyn-obst	Infectious Diseases
1	Emergency ward residents history notes in urge at admission		100%	100%	100%	100%
2	Standard structure for medical history	In all records	4.4%	0%	0%	0%
		More than 50% of records	74.4%	60%	100%	100%
		Less than 50% of records	21.1%	40%	0%	0%
3	Ward residents history notes		68.4%	25%	**	**
	Quality	Standard structure for medical history	57.1%	100%	**	**
		Problem list	0%	0%	**	**
		Differential diagnosis	42.8%	0%	**	**
		Emergency plan	64.6%	0%	**	**
4	Ward residents history notes		81.1%	50%	97.5%	90%
	Quality	Standard structure for medical history	100%	100%	100%	100%
		Problem list	11.9%	5.5%	0%	0%
		Differential diagnosis	71.4%	44.4%	0%	80%
		Emergency plan	8.3%	0%	0%	0%
5	Intern's history notes		87.5%	*	0%	90%
	Quality	Standard structure for medical history	98.6%	*	**	100%
		Problem list	33.8%	*	**	35.6%
		Differential diagnosis	84%	*	**	70%
		Emergency plan	7.1%	*	**	0%
6	Extern's history notes		68.5%	15%	0%	60%
	Quality	Standard structure for medical history	98.5%	100%	**	100%
		Problem list	46.8%	25%	**	10%
		Differential diagnosis	60.5%	50%	**	50%
7	Proportion of residents replacement during patient's hospitalisation		2.2%	0%	0%	0%
	If positive	Off note	0%	**	**	**
		On note	0%	**	**	**
8	Percent of intern's replacement during patient in hospital stay		27.5%	*	0%	0%
	If positive	Off note	30%	*	**	**
		On note	46.8%	25%	**	10%

TABLE 4. (Continued)

Departments / Items			Internal Medicine	Urology	Gyn-obst	Infectious Diseases
9	Percent of extern's replacement during patient in hospital stay		1.4%	15%	0%	0%
	If positive	Off note	100%	0%	**	**
		On note	0%	0%	**	**
10	Residents progress note	For each in hospital day	1.4%	15%	0%	0%
		For 50%-100% of in hospital days	100%	0%	**	**
		For less than 50% of days	0%	0%	**	**
		No progress note	87.7%	100%	92.5%	100%
11	Quality of progress not	Subject	100%	**	8.3%	**
		Object	100%	**	25%	**
		Assessment	38.9%	**	0%	**
		Plan	44.4%	**	0%	**
12	Intern's progress notes	For each in hospital day	21.2%	*	0%	20%
		For 50%-100% of in hospital days	27.5%	*	0%	40%
		For less than 50% of days	13.7%	*	0%	10%
		No progress note	37.5%	*	0%	30%
13	Quality of progress notes	Subject	100%	**	**	100%
		Object	100%	**	**	100%
		Assessment	90%	**	**	100%
		Plan	85.9%	**	**	100%
14	Extern's progress notes	For each in hospital day	24.2%	0%	0%	20%
		For 50%-100% of in hospital days	31.4%	0%	0%	30%
		For less than 50% of days	10%	30%	0%	10%
		No progress note	34.2%	80%	100%	0%
15	Medical Orders	Each day has a signed medical order by resident	21.2%	40%	55%	20%
		50%-100% of days have a signed medical order by resident	75.5%	60%	42.5%	30%
		Less that 50% of days have a signed medical order by resident	3.3%	0%	2.5%	0%

TABLE 4. (Continued)

Departments / Items			Internal Medicine	Urology	Gyn-obst	Infectious Diseases
16	Medical record summary		87.5%	*	0%	90%
	Quality of summary	Diagnosis before admission	84.2%	100%	65%	**
		Diagnosis after admission	93.3%	70%	95%	**
		Summary of history	100%	100%	30%	**
		Brief review of para clinical test results	98.8%	20%	0%	**
		Prescribed drugs	98.8%	100%	0%	**
		Plan follow up	95.2%	80%	75%	**

Our review of 170 medical records showed that classifications required by ministry of health were not met in most instances in any of departments. Problem list, assessment plan, and differential diagnosis were missing in admitting residents' history as sell as in the history taken by the residents in emergency department. Since these parts of a history had important implication for quality care of patients, the likelihood of less than care and mismanagement increase when they are missing. In Gynaecology and obstetrics department the patients records ladled the interns and extern's history compromising their education regarding important skills needed in taking history in these setting.

A major proportion of patient's records lacked resident's progress notes rendering patient's progress and his/her course of disease follow up impossible, medical records lacked progress notes in genecology – obstetric department while good progress notes in infectious disease department's medical records were observed. A study by Mankuta et al showed that after a passing planned educational sessions on medical recording, physician significantly improved in recording patients medical information.

Gynecology and obstetric, and internal medicine department has the lowest total score in learners survey for their educational function. The shortcomings express lay learners (students , interns, residents) include: lack of attention to residents opinion and their proposed solution for the problems, irregular visitation of patients by faculties, inattentive histories by externs, insufficient attention to prevalent disease of the country, unreliable learners assessment.

Based on our findings we recommend the following to improve educational outcomes:

1) Establish faculty member strategies to reach the standards of faculty to learners ratio, a balanced clinical and educational works load,
2) Plan to improve medical recording through training programs for faculties and residents
3) More vigorous internal evaluation
4) External evaluation by the university or affiliated medical faculty the results should be sent for departments to take measures to improve shortcomings
5) Election of best performing departments each year based on clear criteria.

If the departments of each university are ranked based on his criteria and effective reward system is established, achieving continuous improvement in education wont be far.

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