

Comparison of Academic Achievement between Medical Students Recruited by State's Medical School Entrance Selection and by Rangsit University's Own Examination

Kasem Saereeporncharenkul MD*

* Department of Obstetrics and Gynecology, Rajavithi Hospital, College of Medicine, Rangsit University, Bangkok, Thailand

Objective: College of Medicine, Rangsit University (RSU), is the only private medical school in Thailand. RSU College of Medicine recruiting method includes the examination together with state's medical schools and its own examination. The study aims to compare number of students in each group who passed, as required in the curriculum, pre-clinical subjects in 3 academic years, graduated Doctor of Medicine degree in 6 academic years, and finally passed the National Board examination for the Medical License following graduation.

Material and Method: All medical students enrolled in the College of Medicine from 2000 to 2004 academic year were included in the study. The numbers of students from each group who passed pre-clinical level in 3 academic years, graduated in 6 academic years and finally passed the National Board examination for the Medical License following graduation were analyzed.

Results: During the year 2000 to 2004 College of Medicine recruited and enrolled 506 students, of these, 51 resigned. The number of students recruited by examination with other state's medical schools (first group) was 178 and by RSU examination (second group) was 277. Number of medical students who finished pre-clinical study and passed to clinical level in three years as required in the curriculum were 144 from 178 (80.9%) in the first group and 205 from 277 (74.0%) in the second group. Number of medical students who graduated in six years as required in the curriculum were 140 from 178 (78.7%) in the first group and 202 from 277 (72.9%) in the second group. One-hundred and thirteen from 178 students (63.5%) in the first group graduated within 6 years and passed the National Board Examination for Medical License following graduation. However, 149 from 277 students (53.8%) in the second group passed the same described process.

Conclusion: Numbers of medical students admitted by examination together with other state's medical schools and examination by RSU itself are not significantly different in finishing pre-clinical subjects in 3 years and graduated in 6 years. However, number of medical students recruited by examination with other state's medical schools passing the National Board Medical License examination at once following graduation in 6 years is significantly more than those recruited by the RSU examination itself.

Keywords: Medical student, Private medical school, Educational success, Medical license examination.

J Med Assoc Thai 2011; 94 (Suppl. 2): S113-S118

Full text. e-Journal: <http://www.mat.or.th/journal>

College of Medicine, Rangsit University (RSU), is the only private medical school in Thailand. The Faculty of Science, Rangsit University, is responsible for basic science and pre-clinical teaching (years 1st-3rd), while the Institute of Medicine co-production department of Medicine-RSU is responsible

for clinical teaching (years 4th-6th). Rajavithi Hospital and Queen Sirikit National Institute for Child Health are the main hospitals for clinical practices⁽¹⁻⁴⁾. College of Medicine graduates have to pass the National Board Examination for Medical License and this criterion was included since the beginning of the college⁽¹⁻⁴⁾. The examination results of our medical graduates are better than those graduates who were from foreign medical schools, but the scores are still not as good as those graduates from the state's medical schools⁽⁵⁻⁷⁾. Because of being private university and has to be self-sustained, RSU has to recruit certain number of students. This results in various backgrounds of

Correspondence to:

Saereeporncharenkul K, Department of Obstetrics and Gynecology, Rajavithi Hospital, College of Medicine, Rangsit University, 2 Phayathai Road, Rachathewi, Bangkok 10400, Thailand.

Phone: 0-2354-8165-74 ext. 3226, 3210, Fax: 0-2354-8084
E-mail: kasem_saeree@yahoo.com

students. RSU College of Medicine recruiting method includes the examination together with state's medical schools and its own examination by testing in Mathematics, Science and English^(8,9). After passing the written test and selected from the score ranking, the student applicants have to pass general knowledge, specific subject for medicine and psychological test as well⁽⁹⁾.

The author conducted this study to compare educational achievement between medical students recruited by the examination together with the state's medical school and by RSU's own examination. The study aims to compare number of students in each group who passed, as required in the curriculum, pre-clinical subjects in 3 academic years, graduated Doctor of Medicine degree in 6 academic years, and finally passed the National Board examination for the Medical License once they graduated.

Material and Method

Numbers of all medical students enrolled as medical students in the College of Medicine from 2000 to 2004 academic year were compiled. Students were classified into two groups: group recruited by the examination with the state's medical schools and group recruited by Rangsit University examination itself. The number of students in each group who finished all subjects of basic science and pre-clinics within 3 academic years as required in the curriculum was recorded and analyzed. The number of students in each group who graduated Doctor of Medicine degree within 6 academic years was recorded and analyzed. The number of students who graduated within 6 years and passed the National Board Examination for Medical License at once was recorded and analyzed. The students who resigned in the first year were excluded from the study because most of them had re-examination and went to the state's medical schools.

Statistical analysis

We used descriptive statistics, data analysis including percentage, mean, standard deviation and inferential statistics to compare the differences between the groups, and used Student t-test and Chi-Square test for statistical analysis with p-value was set at less than 0.05 for significant.

Results

During the academic years of 2000-2004 (5 years), RSU College of Medicine enrolled 506 students. Two-hundred and six students were from admission by examination with the state's medical schools (first group) and 300 students were recruited from RSU's own examination (second group). Twenty-eight students from the first group left in the first year, while from the second group were 23 students. Therefore, the number of students in the group of examination with the state's medical schools was 178 and in RSU examination was 277 (Table 1).

The student population was not different in terms of sex and age. High school GPA (grade point average) of state's medical school group was 3.27 ± 0.52 and of RSU group was 3.08 ± 0.52 ; this difference appears to be statistically significant. The place of high school in both groups also differs significantly (Table 2).

Number of medical students recruited from examination with state's medical schools finished pre-clinical study and passed to clinical level in three years as required in the curriculum was 144 from 178 (80.9%), while number of medical students of the RSU examination group was 205 from 277 (74.0%). The difference between both groups is not statistically significant ($p = 0.090$) (Table 3).

Number of medical students from examination with state's medical schools graduated in six years as required in the curriculum was 140 from 178 (78.7%),

Table 1. The number of medical students enrolled and first year resignation of each group between years 2000 to 2004

Year	Total Enroll	Exam with the state's medical school		Rangsit University (RSU) exam	
		enroll	first year resign (%)	enroll	first year resign (%)
2000	97	36	2 (5.6)	61	7 (11.5)
2001	97	40	3 (7.5)	57	8 (14.0)
2002	102	45	7 (15.5)	57	2 (3.5)
2003	105	43	12 (27.9)	62	3 (4.8)
2004	105	42	4 (9.5)	63	3 (4.8)
Total	506	206	28 (13.6)	300	23 (7.7)

Table 2. Characteristics of medical students enrolled from two different methods

Characters	RSU** (n = 277)		With state's (n = 178)		Total (n = 455)		p-value
	n	%	n	%	n	%	
Gender							0.734
Male	103	37.2	69	38.8	172	37.8	
Female	174	62.8	109	61.2	283	62.2	
Place of high schools							0.004*
Bangkok	114	41.2	103	57.9	217	47.7	
Suburb	31	11.2	16	9.0	47	10.3	
Province	126	45.5	58	32.6	184	40.4	
Foreign	6	2.2	1	0.6	7	1.5	
High school's GPA \pm SD	3.08 \pm 0.52		3.27 \pm 0.52		3.16 \pm 0.53		< 0.001*
Age at admission \pm SD	19.40 \pm 2.51		19.15 \pm 1.97		19.30 \pm 2.32		0.238

* Statistical significant at p <0.05. ** Rangsit University

Table 3. Academic achievement of all students. Two groups presented in passing the first three years, to complete the course in 6 years and passed examination of the medical profession license immediately at the end of 6 years

achievement	RSU exam** (n = 277)		State's exam (n = 178)		Total (n = 455)		p-value
	n	%	n	%	n	%	
Pre-clinic in 3 years							0.090
No	72	26.0	34	19.1	106	23.3	
Yes	205	74.0	144	80.9	349	76.7	
Graduate in 6 years							0.168
No	75	27.1	38	21.3	113	24.8	
Yes	202	72.9	140	78.7	342	75.2	
Pass the license without delay							0.041*
No	128	46.2	65	36.5	193	42.4	
Yes	149	53.8	113	63.5	262	57.6	

*Statistical significance at p <0.05, **Rangsit University

Table 4. Number of students take the given licensed professional exams once following the graduation

	Pass the license exam at once	Not pass the license exam at once	p-value
RSU** group graduated in 6 years (n = 202)	149 (73.8%)	53 (26.2%)	0.135
State's exam group graduated in 6 years (n = 140)	113 (80.7%)	27 (19.3%)	

**Rangsit University

while number of medical students from RSU examination group was not statistically significant as well (p = 0.168) was 202 from 277 (72.9%). The difference between both (Table 3).

One-hundred and thirteen from 178 students (63.5%), enrolled by examination with the state's medical schools, graduated within 6 years and passed the National Board Examination for Medical License once after graduation. However, 149 from 277 students (53.8%), enrolled by RSU examination, passed the same described process. This difference is statistically significant ($p = 0.041$) (Table 3).

The author also found that from a total of 202 medical students recruited from RSU examination and graduated in 6 years, 149 (73.8%) students passed the National Board Medical License examination immediately following graduation. When comparing with the students recruited from state's medical examination, 113 out of 140 graduates (80.7%) passed the National Board Medical License examination. The number of students from two groups are not statistically different ($p = 0.135$).

Discussion

College of Medicine, Rangsit University, is the only private medical school in Thailand, and has been founded since 1989. In the admission process in Thailand, high school students must have a competitive score in order to be admitted to state's medical schools. In such examination organized by the state's committee the students who choose faculty of medicine almost has higher scores, comparing to the other professions like engineering or else⁽¹⁰⁾. If students have only fair scores, their chance to be admitted to medical schools is nearly impossible unless they study abroad. College of Medicine, Rangsit University, provides a chance for those students who cannot have competitive score but wish to study medicine. Besides, studying in Thailand is more economical than studying abroad, with similar quality. Being a private university, the medical students from Rangsit University have to take examination for the Medical License. This study, revealed that the medical students recruited by the examination together with other state's medical schools have a higher high school's GPA than those recruited by RSU's own examination. The location of high schools of both groups differs significantly as well.

Both groups of medical students could finish their pre-clinical years within 3 years and graduated within 6 years as required in the curriculum with no significant difference. The number of medical students of state's medical school examination group graduated in 6 years and passed the National Board Medical License examination at once was 113 from 178 (63.5%), but the number of the RSU's own examination group

was 149 of 277 (53.8%), showing statistically significant difference. The reasons of this difference may be due to the difference of the high school's GPA and the result of the Nation Board Medical License Examination⁽⁵⁻⁷⁾.

It seems that the admission evaluation by RSU's own examination under the approval of the RSU Faculty of Medicine needs higher standard in order to have higher number of medical graduates who can pass Medical License examination. However, when comparing medical students who graduated in 6 years and passed the National Board Medical License examination at once with medical students who graduated in 6 years, the state's medical school examination group was 113 from 140 (80.7%) students and RSU group was 149 from 202 (73.8%) students, which was not significantly different.

Conclusion

Numbers of medical students admitted by examination together with other state's medical schools and examination by RSU itself are not significantly different in finishing pre-clinical subjects in 3 years and graduated in 6 years. However, number of medical students recruited by examination with other state's medical schools passing the National Board Medical License examination at once after graduation in 6 years is significantly more than those recruited by the RSU examination itself. Suggestion in future study, the psychological aspect should be included.

Potential conflicts of interest

None.

References

1. Rangsit University. Handbook of admission for academic year 2001. Bangkok: Rangsit University; 2001.
2. Rangsit University. Handbook of admission for academic year 2002. Bangkok: Rangsit University; 2002.
3. Rangsit University. Handbook of admission for academic year 2003. Bangkok: Rangsit University; 2003.
4. Rangsit University. Handbook of admission for academic year 2004. Bangkok: Rangsit University; 2004.
5. The Medical Council. Medical license examination, final result. Medical Council 012/25. 2006/Mar/30. (document)
6. The Medical Council, Secretariate Office of The Medical Council 17/2550. Third step Medical li-

- cense examination result 2007. (announcement)
7. The Medical Council. Medical license examination, final result. Medical Council 12/273.2008/Mar/31. (document)
 8. Consortium of Thai Medical Schools. First announcement of consortium of Thai medical schools for criteria of direct admission to studying for doctor of medicine and doctor of dentistry of consortium of Thai medical schools [database on the Internet]. 2010 [cited 2010 Aug 15]. Available from: http://www9.si.mahidol.ac.th/pdf/CONSORT_ANN_01_25530714.pdf
 9. College of Medicine, Rangsit University. Criteria and procedure of admission to studying for doctor of medicine [database on the Internet]. 2010 [cited 2010 Jun 12]. Available from: <http://www.rsu.ac.th>
 10. Consortium of Thai Medical Schools. Eleventh announcement of consortium of Thai medical schools for score of direct admission to studying for doctor of medicine and doctor of dentistry of consortium of Thai medical schools [database on the Internet] 2010 [cited 2010 Aug 15]. Available from: http://www9.si.mahidol.ac.th/C_2553_AN11.pdf.

เปรียบเทียบผลสัมฤทธิ์ทางการศึกษาระหว่างนักศึกษาแพทย์ที่รับจากการสอบคัดเลือกพร้อมกับโรงเรียนแพทย์ของรัฐ และนักศึกษาแพทย์ที่มหาวิทยาลัยรังสิตสอบคัดเลือกเอง

เกษม เสรีพรเจริญกุล

วัตถุประสงค์: เพื่อศึกษาว่านักศึกษาแพทย์มหาวิทยาลัยรังสิตที่รับจากการสอบคัดเลือกพร้อมกับโรงเรียนแพทย์ของรัฐ และที่รับจากมหาวิทยาลัยรังสิตจัดสอบเอง จะมีความแตกต่างกันในด้านความสำเร็จทางการศึกษาอย่างไรบ้าง จึงทำการศึกษาคูว่านักศึกษาในแต่ละกลุ่มสามารถขึ้นเรียน ชั้นคลินิกในเวลา 3 ปีตามหลักสูตร แตกต่างกันหรือไม่ นักศึกษาในแต่ละกลุ่มสามารถสำเร็จการศึกษาในเวลา 6 ปี ตามหลักสูตรแตกต่างกันหรือไม่ และนักศึกษาในแต่ละกลุ่มที่จบการศึกษาใน 6 ปี จะสามารถผ่านการสอบเพื่อไปประกอบวิชาชีพเวชกรรม ในครั้งแรกของการสอบ ซึ่งหมายความว่า ได้ใบอนุญาตประกอบวิชาชีพเวชกรรมทันทีหลังจากใช้เวลาในการศึกษา 6 ปีแตกต่างกันหรือไม่

วัสดุและวิธีการ: รวบรวมรายชื่อนักศึกษาแพทย์ที่ลงทะเบียนเป็นนักศึกษาวิทยาลัยแพทยศาสตร์ตั้งแต่ปีการศึกษา 2543 ถึง 2547 จำแนกนักศึกษาออกเป็นสองกลุ่มคือกลุ่มที่รับจากการสอบพร้อมกับโรงเรียนแพทย์ของรัฐ และกลุ่มที่มหาวิทยาลัยรังสิตสอบคัดเลือกเอง ทำการศึกษาคูว่านักศึกษาแต่ละกลุ่มมีจำนวนนักศึกษา ที่สามารถขึ้นเรียนในชั้นคลินิกในเวลา 3 ปี ตามหลักสูตรจำนวนเท่าใด ทำการศึกษาคูว่านักศึกษาแต่ละกลุ่มมีจำนวนนักศึกษาที่สามารถจบการศึกษาในเวลา 6 ปี ตามหลักสูตรจำนวนเท่าใด ทำการศึกษาคูว่านักศึกษาแต่ละกลุ่ม มีจำนวนนักศึกษาที่สามารถสอบผ่านการสอบเพื่อไปประกอบวิชาชีพเวชกรรมทั้ง 3 ขั้นตอน สามารถประกอบวิชาชีพเวชกรรมทันทีที่สำเร็จการศึกษาด้านหลักสูตร 6 ปี จำนวนเท่าใด

ผลการศึกษา: ระหว่างปีการศึกษา 2543-2547 วิทยาลัยแพทยศาสตร์รับนักศึกษาใหม่ทั้งสิ้น 506 คน มีนักศึกษาลาออก 51 คน ทำให้จำนวนนักศึกษาในกลุ่มรับพร้อมกับโรงเรียนแพทย์ของรัฐมี 178 คน และกลุ่มที่รับโดยมหาวิทยาลัยรังสิตจัดสอบเองมี 277 คน นักศึกษาแพทย์จากการสอบพร้อมกับโรงเรียนแพทย์ของรัฐสามารถขึ้นชั้นคลินิกในเวลา 3 ปี 144 คน จาก 178 คน (80.9%) และกลุ่มที่มหาวิทยาลัยรังสิตจัดสอบ 205 คน จาก 277 คน (74.0%) นักศึกษาแพทย์จากการสอบพร้อมกับโรงเรียนแพทย์ของรัฐสามารถจบการศึกษาในเวลา 6 ปี 140 คน จาก 178 คน (78.7%) กลุ่มที่มหาวิทยาลัยรังสิตจัดสอบ 202 คน จาก 277 คน (72.9%) นักศึกษาจากการสอบพร้อมกับโรงเรียนแพทย์ของรัฐที่จบการศึกษาในเวลา 6 ปี สอบได้ใบอนุญาตประกอบวิชาชีพเวชกรรมทันทีที่จบ 113 คน จาก 178 คน (63.5%) กลุ่มที่มหาวิทยาลัยรังสิตจัดสอบ 149 คน จาก 277 คน (53.8%)

สรุป: นักศึกษาทั้งกลุ่มที่รับจากการสอบพร้อมกับโรงเรียนแพทย์ของรัฐและกลุ่มที่มหาวิทยาลัยรังสิตจัดสอบเองสามารถผ่านขึ้นเรียนชั้นคลินิกในเวลา 3 ปี และจบแพทยศาสตรบัณฑิตในเวลา 6 ปี ไม่แตกต่างกัน แต่นักศึกษาแพทย์ที่รับจากการสอบพร้อมกับโรงเรียนแพทย์ของรัฐสามารถสอบได้ใบอนุญาตประกอบวิชาชีพเวชกรรมทันทีที่จบการศึกษาในเวลา 6 ปี ได้มากกว่ากลุ่มที่รับจากมหาวิทยาลัยรังสิตจัดสอบเอง
