

Available online at www.sciencedirect.com



Procedia Social and Behavioral Sciences 18 (2011) 460-463



Kongres Pengajaran dan Pembelajaran UKM, 2010

# Audit Upon Graduation: UKM House Officers' Competencies

Abdus Salam\*, Nabishah Mohamad, Mohd Nasri Awang Besar

Faculty of Medicine, Universiti Kebangsaan Malaysia, Jalan Yaacob Latif, 56000 Cheras, Kuala Lumpur, Malaysia

#### Abstract

Assessment of graduates' competencies is an important part of continuous quality improvement of the medical curriculum and is aimed to ensure that graduates are well prepared. High quality medical education is vital to ensure high quality medical care. A cross sectional study was carried out in mid 2010 to investigate the UKM medical graduates' perception about their competencies on different broad areas. Sample size consisted of 112 graduates who participated in this study. Data was collected by administering a questionnaire that contained different attributes of graduates' confidence level in different broad area of competencies. Rating scale used in the questionnaire against each of the competencies was ranged from 1-10. The highest mean score obtained was 7.69 with SD 1.33, accredited to appropriate attitude, ethical understanding and legal responsibilities of the graduates while the lowest mean score was 7.26 with SD 1.26 that was accredited to the patient management skills of the graduate. The other components of skills measured were self directed learning, communication skills, clinical skills, personal development, patient investigation, appropriate information handling skills and appropriate decision making skills, clinical reasoning and judgement. UKM graduates perceived that they were well prepared for their role as house officers. However educational managers, especially the clinical teachers need to give particular attention to improve the patient management skills of the graduates.

© 2011 Published by Elsevier Ltd. Selection and/or peer-review under responsibility of Kongres Pengajaran & Pembelajaran UKM, 2010

Keywords: audit; medical graduates; competency;

### 1. Introduction

Medical school provides the educational experiences needed for the acquisition of minimum necessary competencies in their graduates (Salam et al. 2008c; Schwarz 2001). Competency-based education links between education and practice (Salam et al. 2008c; Tilley et al. 2007). Medical professional competencies encompass a set of skills, knowledge, and attitudes required to efficiently accomplish the practice of medicine (Salam et al. 2008c; Villegas-Alvarez et al. 2007). Basic practical skills are essential competencies that students develop during their undergraduate medical course to meet the demand of their professional life. Teachers play important role in the development of student' skills during their undergraduate course (Nabishah 2009). Changing role from teaching to facilitating is a challenging task (Nabishah et al. 2010) and it depends on teachers' skills of facilitation, which again depends on so many factors. Evaluation of confidence level of different competencies of graduates is very important to guarantee that graduates are well prepared for independent clinical practice (Rolland et al. 2007). Conversations

<sup>\*</sup> Corresponding author. Tel.: +6-03-9145-7973; fax: +6-03-9145-6678. E-mail address: salam@ppukm.ukm.my

on competency-based education are taking place at all levels of medical education and it is evident that a significant number of newly qualified interns perceived their own competencies as inadequate (Salam et al. 2008c; Lai et al. 2007; Taylor 1997). High quality medical education is fundamental to ensure high quality medical care (Salam et al. 2008c; Jones et al. 2001). UKM Medical Centre is dutiful to produce confident and competent medical practitioners to ensure that health needs of the community are met (Salam et al. 2008b). We studied the UKM medical graduates' perception on different board areas of competencies which are essential for the future doctors. The objective of this study was to identify how well graduates were prepared for their horsemanship programme with the ultimate aim of which was to assist in the curriculum development.

# 2. Methodology

Across sectional study was done on UKM medical graduates who graduated in the year 2010. Data was collected during their graduation day ceremony at the UKM Medical Centre. During this study period, the graduates had completed one and half month in their horsemanship programme at different general hospitals in Malaysia. A total of 112 medical graduates participated in this study. In order to obtain the data, a questionnaire was designed, pretested and distributed to them. The questionnaire contained different attributes concerning with graduates' confidence level in different broad areas of clinical skills. Respondents were required to rate their answer on a tenpoint scale. The score was compiled and analyzed using SPSS version 17.

#### 2. Results

Table 1 showed the mean scores with SD on broad areas of competencies regarding how well they felt prepared in nine broad areas. The highest scored (7.69) areas of competency was appropriate attitude, ethical understanding and legal responsibilities of the graduates and the lowest scored (7.26) areas of competency was patient management skills. The other areas of competencies scored by graduates themselves were self-directed learning skills, communication skills, clinical skills, personal development, competencies on patient investigation, information handling skills, and appropriate decision making, clinical reasoning and judgement which are also shown in Table 1.

TD 11 1	a 1 . 1		*.1 . 1 1	1	(OD)	. 1	1	C	
Table	( tradilates'	mean coorec	with standard	deviation	( < 1 ) )	on broa	d areac	at cami	101010C
rault 1.	Graduaics	ilicali scores	with Stanuaru	ucviation	ו שט		iu ai cas		JULUIUIUS

Broad Areas of Competencies	Mean score	SD
Appropriate attitude, ethical understanding and legal responsibilities	7.69	1.33
Self directed learning	7.61	1.27
Communication skills	7.61	1.30
Clinical skills	7.51	1.26
Personal development	7.51	1.27
Patient investigation	7.48	1.30
Appropriate information handling skills	7.45	1.22
Appropriate decision making skills, clinical reasoning and judgement	7.39	1.29
Patient management	7.26	1.32

#### 3. Discussion

This study measures the graduates' perception on different broad areas of competencies. Students develop essential competencies during their undergraduate medical course to meet the demand of their professional life (Elango et al. 2007). Medical education is not only about the acquisition of new knowledge and skills; it is also about the acquisition of all right and responsibilities that are involved in the profession (Wagner et al. 2007).

Professional work attitude, respect to patients' rights and privacy and awareness on legal and ethical issues are some aspects of professionalism. The graduates become true physicians when they undertake the role and responsibilities of doctoring through professionalism and a lifelong commitment to self-directed learning (Cruess et al. 1997; Cruess et al. 1999). UKM medical graduates rated highest scores (7.7) to all these values under the broad area of appropriate attitude, ethical understanding and legal responsibilities, which reflect that UKM medical graduates are more professional.

Teaching and learning of communication skills form a core part of modern medical undergraduate curriculum (Brown 2008) and the General Medical Council (GMC) stated that at the end of undergraduate course, students should have acquired and demonstrated their proficiency in communication (GMC 1993). This present study showed that communication with patients, patient's relatives and with other health professionals were scored the second highest (7.6) by the graduates. Good communication improves care and enhances patient satisfaction, compliances and health outcomes (Salam et al. 2008a). Evidence-based studies show that inter-personal and communication skills of doctors have a significant impact on patient care (Salam et al. 2011a; Salam et al. 2011b; Rider et al. 2006; Nobile et al. 2003 & Langlois et al. 2000).

History taking, physical examination and making diagnosis are important aspects of clinical skills. UKM graduates rated their clinical skills as 7.5 which are close to communication skills. Similar ratings were given for the areas of personal development, the attributes of which are good time management, lifelong education, increase self responsibility and development of confidence. These favourable ratings may reflect the effectiveness of the problem-based learning (PBL) and Personal Professional Development (PPD) which are the major modes of instruction in the UKM medical curriculum.

Selecting relevant investigation and performing procedures was rated as 7.4 by the graduates while patient management was rated as 7.3. There are some arguments that doctors are not adequately prepared particularly regarding the basic practical skills (Mc Manus et al. 1998). It is suggested that undergraduate medical curriculum should have a formal training on basic practical skills and the students should be assessed to make sure that the students learn these skills (Elango et al. 2007). The training requires time and practice, and should be supervised and assessed regularly. Medical schools cannot rely on clerkship experience alone to offer students adequate basic clinical skill training (GMC 1993). Clinical skill laboratory can offer the junior doctors to learn the practical skills (Remmen et al. 2001). The result from our study provides valuable messages for curriculum planners to give importance to the patient management skill and skills of performing procedures for further improvement.

This study also investigated the perception of students about their information handling skills which was rated as 7.5 and appropriate decision making, clinical reasoning and judgment which was rated as 7.4. These favourable ratings also reflect the effectiveness of the PBL and PPD in the UKM medical curriculum.

The important limitation in this study is that, the study reflects the self perception or self assessment which may not be closely correlated with actual performances. Perception of the supervisors regarding graduates competencies as well as patients' perception can further strengthen this study.

## 4. Conclusion

The results of this study provided a valuable data to assists in curriculum development of the undergraduate medical program. From the findings of this study, it is concluded that UKM medical graduates were well prepared for their role as houseman officer. However educational managers, especially the clinical teachers need to give particular attention to improve the patient management skills of the graduates.

#### References

Brown. J. (2008). How clinical communication has become a core part of medical education in UK. Med Edu, 42:271-278.

Cruess, R.L., & Cruess, S.R., & Johnston, S.E. (1999). Renewing professionalism: an opportunity for medicine. Acad Med, 74:878-884.

Cruess, S.R., & Cruess, R.L. (1997). Professionalism must be taught, BMJ, 315:1674-1677.

Elango, S., Ramesh, C.J., Kandasami, P., Teng, C.L., Loh, L.C., & Motilal, T. (2007). Assessment of basic practical skills in an undergraduate medical curriculum. *IeJSME*, 1(1): 41-45.

General Medical Council. (1993). Tomorrow's Doctors. Recommendations on Undergraduate Medical Education. London: General Medical

- Jones, R., Higgs, R., de Angelis, C., & Prideaux, D. (2001). Changing phase of medical curricula. The Lancet, 357:699-703.
- Lai, N.M., Sivalingam, N., & Ramesh, J.C. (2007). Medical students in their final six months of training: progress in self-perceived clinical competence, and relationship between experience and confidence in practical skills, Singapore Med J, 48:1018-1027.
- Langlois, J.P. & Thach, S. (2000). Teaching at the bedside. Fam Med, 32:528-30.
- Mc Manus, I.C., Richards, P., Winder, B.C. (1998). Clinical experience of UK Medical students. Lancet, 351: 802-803.
- Nabishah, M., Farihah, H.S., Das, S., Salam, A., Siti Marium, B., Mohd Arif, K., Harlina, H.S. & Wan Zurinah W.N. (2009). Problem based learning facilitation: new challenges to higher education educators. *International Medical Journal*, 16: 243-246.
- Nabishah, M., Chen, R., Ilina, I., Salam, A., Harlina, H.S. & Das, S. (2010). Developing skills in problem based learning facilitation: an insight, *International Medical Journal*, 17: 103-106.
- Nobile, C., Drotar, D. (2003). Research on the quality of parent-provider communication in pediatric care: implications and recom-mendations. *J Dev Behav Pediatr*, 24:279-90.
- Remmen, R., Scherpbier, A., Van Der Vleuten, C., Denekens, J., Derese, A., Hermann, I., Hoogenbomm, R., Karmer, A., Van Rossum, H., Van Royen, P., & Bossaert, L. (2001). Effectiveness of basic clinical skills training programmes: a cross sectional comparison of four medical schools. *Med Edu*, 35: 121-128.
- Rider, E.A. & Keefer, C.H. (2006). Communication skills competencies: definitions and a teaching toolbox. Medical Education, 40: 624-629.
- Rolland, S., Hobson, R., & Hanwell, S. (2007). Clinical competency exercises: some student perception. Eur J Dent Educ, 11:184-191.
- Salam, A., Mohd Nasri, A.B., Mohd Arif, K. & Nabisha M. (2011a). Classroom audit: student self-performance, group performance, and tutor performance in a problem-based learning tutorial. *Asean Journal of Teaching and Learning in Higher Education (AJTLHE)*, 3:28-35.
- Salam, A., Harlina, H.S., Nabishah, M., Das, S., & Rabeya, Y. (2011b). Bedside teaching in undergraduate medical education: issues, strategies, and new models for better preparation of new generation doctors. *Iran J Med Sci*, 36:1-6.
- Salam, A., Ahmad Faizal, M.P., Siti Harnida, M.I., Zulkifli, Z., Azian, A.L., Ng, S.P., Zauyah, Y., Ima Nirwana, S., Nabishah, M., & Norhayati, M. (2008a). UKM medical graduates perception of their communication skills during housmanship. *Med Health*, 3:54-58.
- Salam, A., Zulkifli, Z., Azian, A.L., Ng, S.P., Ima Nirwana, S., Nabishah, M., & Norhayati, M. (2008c). Assessment of medical graduates' competencies, Annals Academy of Medicine, 37:814-816.
- Salam, A., Harlina, H.S., & Nabishah, M. (2008b). Campus community partnership in bedside teaching: Staff development programme at a secondary health care hospital in Malaysia. *Med Educ Online* [serial online], 13 doi;10.3885/meo.2008. 10000026 Available from http://www.med-ed-online.org
- Schwarz, M.R. (2001). Globalization and medical education. Medical Teacher 23:533-534.
- Taylor, D.M. (1997). Undergraduate procedural skills training in Victoria: is it adequate? Med J Aust, 166:251-254.
- Tilley, D.S., Allen, P., Collins, C., Bridges, R.A., Francis, P., & Green, A. (2007). Promoting clinical competence: using scaffolded instruction for practice-based learning. *J Prof Nurs*, 23:285-289.
- Villegas-Alvarez, F., Polaco-Castillo, A.J., González-Zamora, J.F., García-Pineda, A.M., & Madrid-Zavala, M.R. (2007). Surgical/medical competences, self-perception among a group of students recently graduated, *Cirugia y cirujanos*, 75:43-7.
- Wagner, P., Hendrich, J., Moseley, G. & Hudson, V. (2007). Defining medical professionalism: a qualitative study. *Medical Education*, 41:288-294.