Quality Accreditation and Standard in

MEDICAL EDUCATION

BANGKOK 2007

The 4th Congress of the Asian Medical Education Association

amea 2007

October 23rd –26th, 2007
Chulalongkorn University, Bangkok, Thailand

ABOUTUS

CHULALONGKORN MEDICAL SCHOOL

Chulalongkorn University, Thailand's first institution of higher learning officially came into being in March, 1917. The groundwork and preparation for it in terms of planning and development, however, took place more than a century ago. The worldwide economic, social and political changes in the late nineteenth century contributed to Siam's decision to adapt herself in order to avoid being colonized by the Western powers ("Siam" became "Thailand" in the year 1939). Thus King Chulalongkorn (Rama V) has royal policy to strengthen and improve government so that the country could successfully resist the tide of colonialism. One of the major parts of the policy, which would later prove to be deep-rooted and highly effective, was to improve the Siamese educational system so as to produce capable personnel to work in both the public and private sectors. As a result, a school was founded in 1871 at the Royal Pages Barrack within the Grand Palace compound. This school eventually evolved to Chulalongkorn University during the reign of King Vajiravudh (King Rama VI).

Faculty of Medicine, Chulalongkorn University was founded in 1947 in compliance with the wish of his Majesty King Anandhamahidol (King Rama VIII). The medical school was established in King Chulalongkorn Memorial Hospital in the compound of the Thai Red Cross Society, with government support. The Faculty comprises 23 departments. We enrol about 240 medical students annually. This Faculty is widely acknowledged as one of the leading medical schools in Asia and has been included in the world top 100 institutions in biomedical sciences. The Faculty plays an active role in medical education. It is the first medical school in Thailand that implemented problem-based learning. The Faculty pioneered in using community hospitals in rural area as clinical teaching centres. This model was adopted by the Ministry of Public Health and was implemented nationwide. Regarding the human resource development, the Faculty has worked closely with World Health Organisation (WHO) in training medical teachers in several countries in South-East Asian and Western Pacific regions. Our Medical Education Unit has been designated as WHO Collaborating Centre for Medical Education since 1988. The Faculty offers international master degree course in Health Professional Education. Graduates in this course include medical teachers from Bhutan, Bangladesh, Maldives, Nepal, etc.

welcome

Dear Colleagues,

On behalf of the Faculty of Medicine, Chulalongkorn University, I am very pleased to welcome the distinguished guest speakers and all participants to attend the fourth congress of the Asian Medical Education Association (AMEA 2007).

The theme of the AMEA 2007 is *"Quality Accreditation and Standard in Medical Education"*. Issue of quality and standard is no doubt very important in medical education. Quality accreditation is the system that can insure the society that we, medical teachers, do our best to produce medical graduates. It is the system that we can guarantee the quality of our performance as well as our products. It is the backbone for the social accountability and trustworthiness.

The year 2007 is a special year for our Faculty. It will mark the 60th anniversary of the establishment of our Faculty. I hope the great event of AMEA 2007 bring us together for sharing and learning together.

I wish you all a memorable stay in the beautiful city of Bangkok and achieving your aims through the attendance at the AMEA 2007.

Sincerely yours,

P. Kamolratanakul

Pirom Kamolratanakul, MD
President, AMEA 2007

Chulalongkorn University

organizing committee

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	Danai Wangsaturaka
	Laongdao Wanicharoen
Secretary General	Anan Srikiatkhachorn

content

SCIENTIFIC PROGRAMME

October 23	October 24	October 25	October 26
09.00-12.30 Pre-congress workshop I	07.30-08.30 Registration	09.00-09.45 Plenary lecture 3	09.00-09.45 Plenary lecture 5
	10.00-10.30 Opening ceremony	10.00-10.30 Plenary lecture 4	10.00-10.30 Plenary lecture 6
	10.30-11.00 Tea break	10.30-11.00 Tea break	10.30-11.00 Tea break
	11.00-12.00 Plenary lecture 1	11.00-13.00 Symposium 2	11.00-12.30 Panel discussion
	12.00-13.00 Plenary lecture 2		
	13.00-14.00 Lunch	13.00-14.00 Lunch	12.30-13.30 Lunch
14.00-17.30 Pre-congress workshop II	14.00-15.15 Debate 1	14.00-15.30 Short communication 1	13.30-14.45 Short communication 2
	15.15-15.45 Tea break	15.30-16.00 Tea break	14.45-15.30 Plenary lecture 7
	15.45-17.30 Symposium 1	16.00-17.30 Debate 2	15.30-16.00 Closing ceremony
	17.30-19.00 Leisure time	17.30-19.00 Leisure time	
	19.00-21.00 Welcome reception	19.00-21.00 Congress dinner	

October 23rd, 2007

Or Por Ror building

09.00 - 12.30	**Pre-congress workshop** (parallel sessions)	**Room**
	A. Selecting the appropriate indicators for quality accreditation *Luis Maria R. Calingo, USA*	203/15
	B. Benchmarking *Trevor Lui, Hong Kong*	203/16
	C. Conducting self assessment *Dorte Kristoffersen, Australia*	203/17
	D. Knowledge management *Thomas Aretz, USA*	308/9
	E. Criteria for good teaching *Peter Dieter, Germany*	308/10
	F. Strategic course planning *Matthew Gwee, Singapore*	308/11
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	D. Knowledge management *Thomas Aretz, USA*	308/9
	E. Criteria for good teaching *Peter Dieter, Germany*	308/10
	F. Strategic course planning *Matthew Gwee, Singapore*	308/11

October 24th, 2007

The main auditorium

07.30 - 08.30	Registration
10.00 - 10.30	**Opening ceremony** *Professor Dr. HRH Princess Chulabhorn Mahidol*
10.30 - 11.00	**Tea break and poster viewing at Maha Chulalongkorn Building**
11.00 - 12.00	**Plenary Lecture 1:** Medicine beyond frontiers *Charas Suwanwela, Thailand*
12.00 - 13.00	**Plenary Lecture 2:** Medical education as a changing world *Thomas Aretz, USA*
13.00 - 14.00	Lunch
14.00 - 15.15	**Debate 1:** Are there any win-win situations in medical school ranking game? *Peter Dieter, Germany* *P.T. Jayawickramarajah, Sri Lanka* *Moderator: Porntip Kanjananiyot*
15.15 - 15.45	**Tea break and poster viewing at Maha Chulalongkorn Building**
15.45 - 17.30	**Symposium 1:** Quality accreditation: The roles of international organizations *P.T. Jayawickramarajah, WHO* *Hans Karle, WFME* *Porntip Kanjananiyot, Fulbright* *Moderator: Anan Srikiatkhachorn*
17.30 - 19.00	Leisure Time
19.00 - 21.00	**Welcome reception**

October 25th, 2007 — The main auditorium

09.00 - 09.45 **Plenary Lecture 3:** Quality accreditation: Choosing appropriate indicators
Luis Maria R. Calingo, USA

10.00 - 10.30 **Plenary Lecture 4:** Quality accreditation: Cross-discipline benchmarking
Richard Lewis, UK

10.30 - 11.00 **Tea break and poster viewing at Maha Chulalongkorn Building**

11.00 - 13.00 **Symposium 2:** Quality accreditation system: National experiences
Dorte Kristoffersen, Australia
Ranjit Roy Chaudhury, India
Somwang Piriyanuwatr, Thailand
Moderator: Thanyaphong Na Nakorn

13.00 - 14.00 Lunch

14.00 - 15.30 **Short communication 1**

Session 1-A:	Curriculum planning and implementation, Student selection *Chair: Khunying Kobchitt Limpaphayom* *Co-chair: Chaichana Nimnuan*	The main auditorium
Session 1-B:	Teaching and learning methods *Chair: Kitpramuk Tantayaporn* *Co-chair: Suchai Suteparuk*	Maha Chulalongkorn (Room 111)
Session 1-C:	Teaching and learning methods, Communication evaluation *Chair: Sompop Limpongsanurak* *Co-chair: Ruangsak Lertkhachonsuk*	Maha Chulalongkorn (Room 210)

15.30 - 16.00 **Tea break and poster viewing at Maha Chulalongkorn Building**

16.00 - 17.30 **Debate 2:** Quality accreditation: Graduate vs. school accreditation — The main auditorium
Grace WK Tang, Hong Kong
Somsak Lolekha, Thailand
Moderator: Valaikanya Plasai

19.00 - 21.00 **Congress dinner**

October 26th, 2007

The main auditorium

09.00 - 09.45 **Plenary Lecture 5:** Resource management for quality assurance in higher education
Khunying Suchada Kirananda, Thailand

10.00 - 10.30 **Plenary Lecture 6:** Assessing quality for postgraduate studies
Kris Chatamra, Thailand

10.30 - 11.00 **Tea break and poster viewing at Maha Chulalongkorn Building**

11.00 - 12.30 **Panel discussion:** Quality accreditation: Ethical concerns
Tada Yipintsoi, Thailand
Hans Karle, Denmark
Nantana Sirisup, Thailand
Moderator: Chaichana Nimnuan

12.30 - 13.30 Lunch

13.30 - 14.45 **Short communication 2**

Session 2-A:	Educational environment, Post-graduate studies *Chair: Chaloem Varavithya* *Co-chair: Pornlert Chatkaew*	The main auditorium
Session 2-B:	Student assessment *Chair: Suwannee Phancharoen* *Co-chair: Thanyaphong Na Nakorn*	Maha Chulalongkorn (Room 111)
Session 2-C:	Ethical issues, others *Chair: Prasert Trivijitsilp* *Co-chair: Danai Wangsaturaka*	Maha Chulalongkorn (Room 210)

14.45 - 15.30 **Plenary Lecture 7:** Teaching of medical professionalism: issues challenges and outcome — The main auditorium
Matthew Gwee, *Singapore*

15.30 - 16.00 **Closing ceremony and award presentation**

tour and sightseeing

Thai people take pride in the richness of their culture. More than anywhere else in the country, Bangkok expresses Thailand's special ability to blend the old with the new. This lends a thrilling sense of discovery to sightseeing and adds an element of surprise when exploring this most fabled city of the Orient. Bangkok is unrivalled on shopping, dining and entertainment. AMEA congress offers the following tours for the delegates and accompanying persons.

Ayutthaya
Thailand's second capital is 30 miles north of Bangkok, declared a World Heritage Site by UNESCO.

Canal Cruise
The journey will begin from a visit to Wat Arun or the Temple of Dawn is a suitable beginning of the canal cruise. This canal journey is finally completed by the visit to the Royal Barge museum.

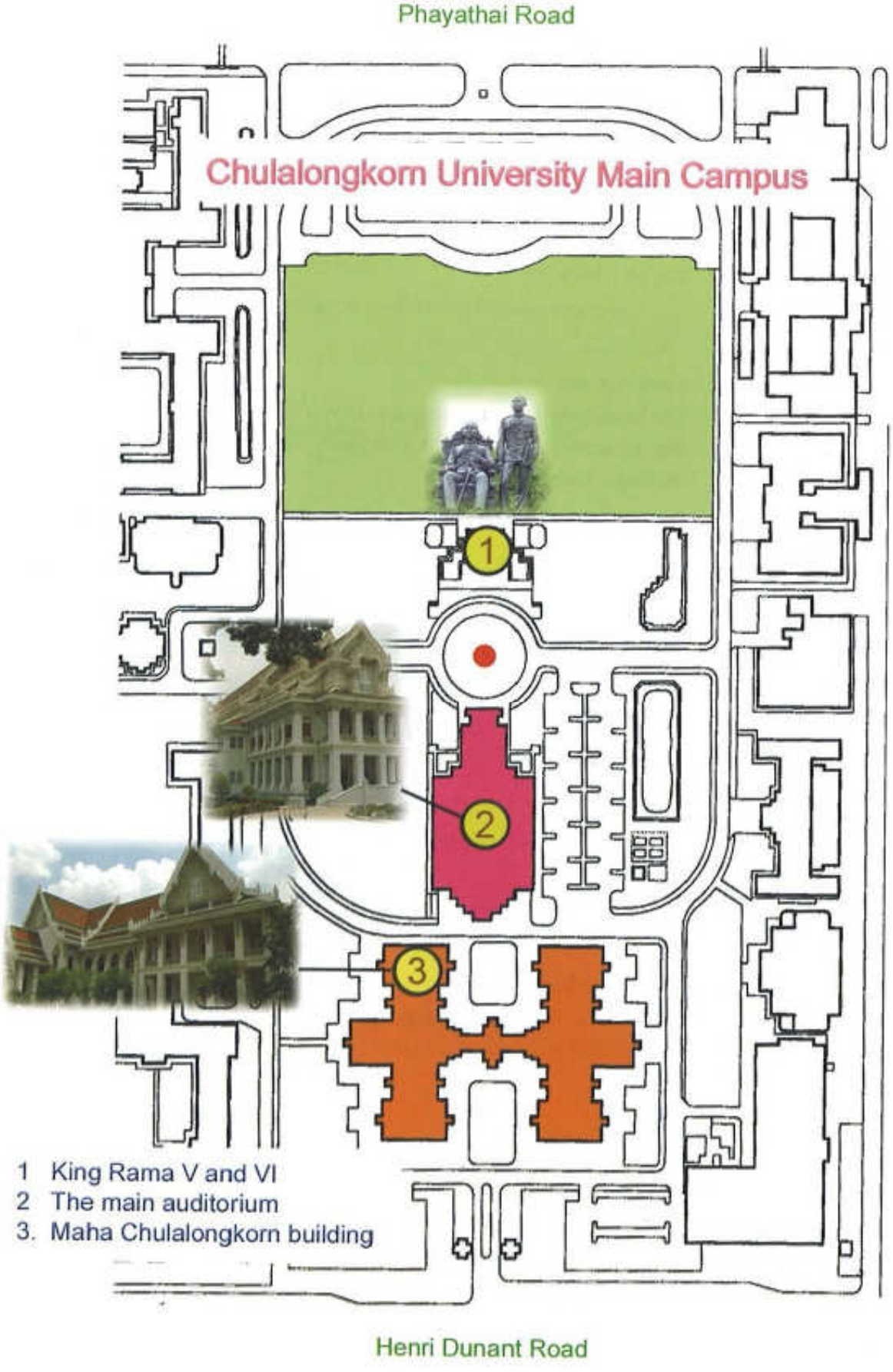
Damnoen Saduak Floating Market
80 miles west of Bangkok is the unique site where age old lifestyle is depicted with farmers in tiny rowing boats trading and bartering produce freshly picked from nearby orchards and farms.

Dinner Cruise
Enjoy your dinner while cruising through the incredible canals of Bangkok.

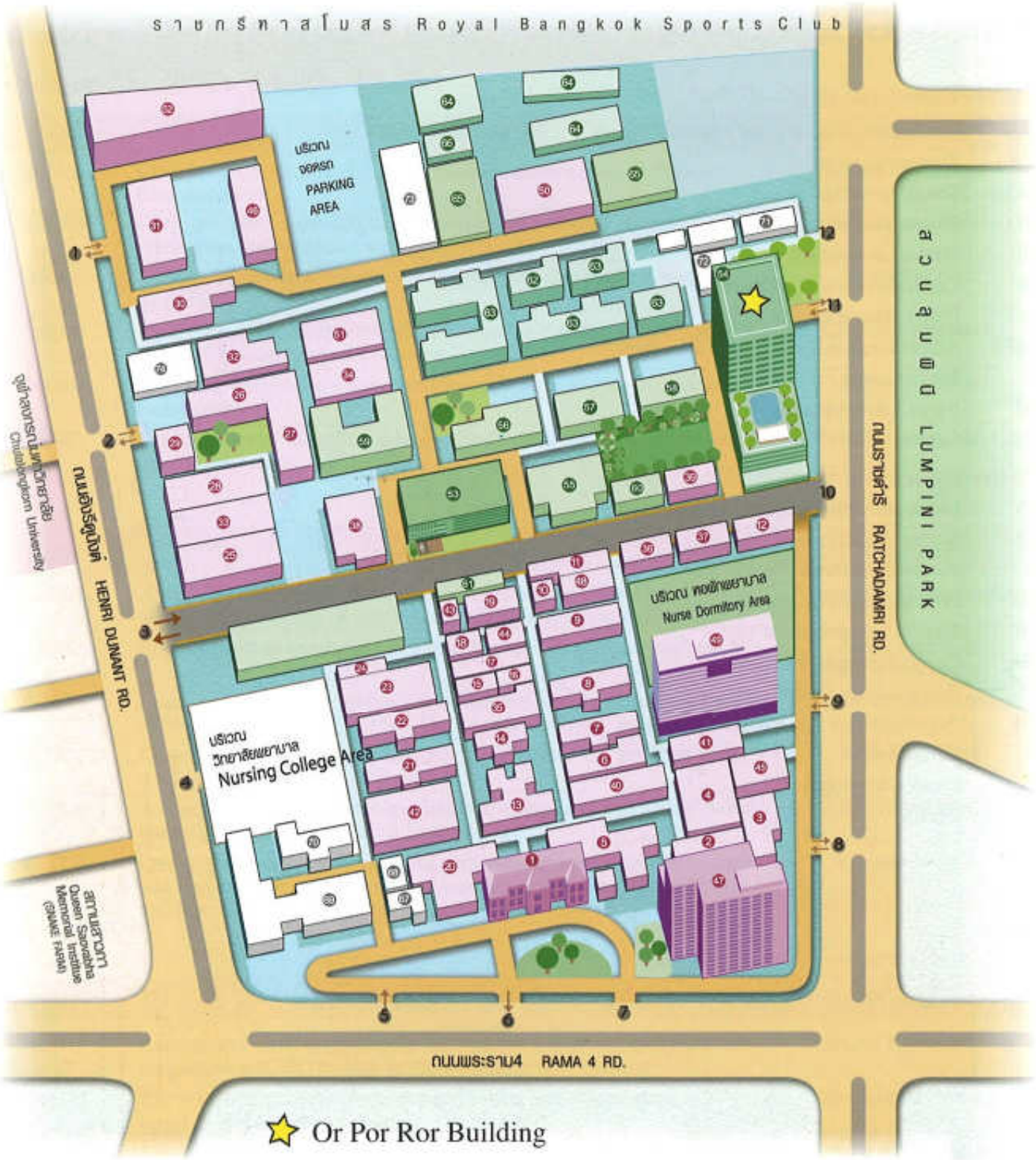
Jim Thompson's House
Visit the house of Jim Thompson, the legendary "King of Thai Silk", a palace for a prince and the home of a former Prime Minister of Thailand.

Thai traditional massage
Two hours of specially designed treatments which will rejuvenate and revitalize your body and soul.

More information will be provided during the conference.


Phayathai Road
Chulalongkorn University Main Campus
1
2
3
1 King Rama V and VI
2 The main auditorium
3. Maha Chulalongkorn building
Henri Dunant Road

แผนที่คณะแพทยศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย และ โรงพยาบาลจุฬาลงกรณ์ สภากาชาดไทย
Map of Faculty of Medicine Chulalongkorn University and King Chulalongkorn Memorial Hospital The Thai Red Cross Society



53 Anandhamahidol Bldg.
54 Or Por Ror Bldg.
55 Library
56 Preclinic Bldg.
57 Dept. Forensic Medicine
58 Dept. Pathology
59 Dept. Physiology
60 Self-learning Center
61 Obromwichakarn Bldg.

Abstract code

Short communication

OA	Curriculum planning and implementation
OB	Student selection
OC	Teaching methods
OD	Educational environment
OE	Student assessment
OF	Curriculum/course evaluation
OG	Post-graduate studies
OH	Administration and resource allocation
OI	Ethical issues
OJ	Faculty development
OK	Others

Poster presentation

PA	Curriculum planning and implementation
PB	Student selection
PC	Teaching methods
PD	Educational environment
PE	Student assessment
PF	Curriculum/course evaluation
PG	Post-graduate studies
PH	Administration and resource allocation
PI	Ethical issues
PJ	Faculty development
PK	Others

The presentation itself should be around 10 minutes, followed by 5 minutes for questions. Presenters are suggested to provide presentation files for loading onto the congress computers no later than 10 am. of the presenting day.

October 25, 2007: 14.00 - 15.30

The main auditorium

Code	Abstract title	Presenter
Invited Paper	CINEMEDUCATION : Learning professionalism through films at Chulalongkorn	Nuttha Lumlertgul, Naruchorn Kijpaisalratana
OA003	Outcome-based approach in development of a disaster management curriculum for healthcare workers	Indika Karunathilake
OA005	Web-based survey of 31 core clinical skills during medical students' clerkship	Youngjon Kim
OA006	Multiple evaluation approaches in evaluation research on the research proposal training project evaluation	Chanakan Boonuch
OA007	Lessons learned from a novel undergraduate curriculum in evidence-based practice	Janice Johnston
OB001	Determinants of the relinquishment for study in the medical school among students in Thailand 2007	Narin Hiransuthikul

Maha Chulalongkorn (Room 111)

Code	Abstract title	Presenter
OC001	A study on assignment and test result relationship in Faculty of Medicine, University of Indonesia (FMUI) international class	Jeanne Adiwinata Pawitan
OC003	Effectiveness of mind maps as a learning tool for medical students	Amila Surangith Wickramasinghe
OC005	Learning and teaching methods for evidence-based medicine in Faculty of Medicine, Prince of Songkla University, Thailand	Tippawan Liabsuetrakul
OC006	Comparison of student performance using lecture and small group as teaching methods in medical physics	Leila Bazrafkan
OC008	A comparison of PBL (problem-based learning) and TBL (team-based learning) in medical student education	Ka-Young Rhee
OC009	Learning from a pilot randomised controlled crossover trial of lecture and tutorial versus problem based learning for evidence based teaching and learniing in medical students	Virginia Venning

Maha Chulalongkorn (Room 210)

Code	Abstract title	Presenter
OC011	Retention of chest compression (CC) performance for cardiopulmonary resuscitation (CPR) among medical students after training	Rungroj Krittayaphong
OC012	The relationships between group discussion and examination result in problem based learning	Mardiastuti H Wahid
OC013	Effects of three educational methods on anxiety, achievement and satisfaction of learning in nursing students	Mohsen Adib-Hajbagher
OC015	Behavior and attitude towards active learning in pathology; is there difference between low and high performing students?	Jutamas Saoraya
OC017	Advantages of video trigger in problem-based learning	Lap-Ki Chan
OF001	Communication skills in medicine: perspectives of future doctors	Nimali Danusha Waidyaratna Widanapathirana

October 26, 2007: 13.30 - 14.45

The main auditorium

Code	Abstract title	Presenter
OD001	Perceptions of academic achievers and under-achievers regarding learning environment of Melaka Manipal Medical College (Manipal campus), Manipal, India, using the dreem inventory	Reem Rachel Abraham
OD002	Students' perceptions regarding educational environment in an Indian dental school	Betsy Thomas MDS
OD003	Feedback in medical schools: do staff practices match student expectations?	Jennifer Perera
OD004	Responses of private pediatric physicians as supervisors of clerkship trainees	Youngjon Kim
OG001	The study of career choices of Khon Kaen University medical students, Thailand	Supanut Lumbiganon

Maha Chulalongkorn (Room 111)

Code	Abstract title	Presenter
OE001	Factors related to negative attitude of first year medical students of University of Indonesia towards communication skills learning	Indah Widyahening
OE002	Impact of standardized patients' working time on scoring OSCEs	Zeng Yong
OE003	Evaluating self-, peer- and tutor-assessments to develop self awareness competence	Nani Cahyani Sudarsono
OE006	Factors influencing OSCE grading regarding raters, standardized patients and testing environment	Cheau-Jane Peng
OE007	Introducing EMIs at Chulalongkorn Medical School: what did students perceive?	Suchai Suteparuk

Maha Chulalongkorn (Room 210)

Code	Abstract title	Presenter
OI001	Medical student's concerns about the medical ethics teaching context (qualitative study)	Leila Bazrafkan
OI003	Do students think their teachers' morality is still ok?	Sontaya Simasathiansophon
OK002	Formulating standards of competence for medical doctor: Indonesian's experience	Titi Savitri Prihatiningsih Damardjati
OK003	Medical program accreditation beyond national boundaries	Karin Oldfield
OK004	The Australian medical council's experience aligning with international benchmarks in quality management and accreditation	Simone Bartrop

poster presentation

The poster should provide title, abstract, background, methods, results, discussion, and references. The poster size should not exceed 90 x 110 cm (W x H). All posters should be displayed for viewing throughout Congress time. Each poster presenter is required to attend his/her poster during the time scheduled as follow.

October 24th, 2007: 15.15 - 15.45

Exhibition hall

Code	Abstract title	Presenter
PA001	An evaluation of curriculum of graduate program in clinical psychology, Department of Psychiatry, Faculty of Medicine, Siriraj Hospital, Graduate Study, Mahidol University	Sucheera Phattharayuttawat
PA002	Evaluation of student seminar as a teaching-learning technique	Jyoti Nagmoti
PA003	A need assessment study of occupational health curriculum for Thai medical students	Surasak Buranatrevedh
PA004	Experiences in developing a new curriculum: from teacher to student-center learnings	Budu
PA005	Students' perception towards the student-selected components of phase 2 curriculum at Chulalongkorn medical school	Saowaros Kiattinart
PA006	The development of a new medical curriculum in Lao PDR	Manivanh Souphanthong
PE001	The effect of academic examination stress on the immunity system in medical students	Syedeh Azra Shamsdin
PE002	Measurement of knowledge, attitude and practice of medical interns in approach to common cardinal sign and symptoms	Mohsen Moghadami
PE003	The follow up of medical students entering the overseas elective scheme	Thongthip Varnaying
PE004	Competencies of Siriraj medical graduates: comparison between the assessment of the medical graduate's supervisors and the graduates	Arunee Vajiraporntip
PE005	Does previous in-training OSCE exam effect summative comprehensive OSCE score	Ruangsak Lertkhachonsuk
PE006	Efficacy of multilevel grouping in clinical year team-based learning	Sireeluck Klanarong
PE007	Assessing nursing student's stressors to improve nursing education	Farkhondeh Sharif
PE008	Comparative analysis of the general pediatric examination between the two groups of sixth year medical students: can constructed response question differentiate?	Prapat Ausayapao
PE009	A comparison of physician examiners and trained nurse anesthetist assessors in anesthesia OSCE setting	Chatchai Prechawai
PE010	The new assessment system of the year 4 pediatrics rotation at Chulalongkorn Medical School: the correlations of the seven instruments	Jitladda Deerojanawong
PE011	The reliability of peer assessment of professional behaviour: a study at Department of Pediatrics, Chulalongkorn Medical School	Pantipa Chatchatee

October 25th, 2007: 10.30 - 11.00

Exhibition hall

Code	Abstract title	Presenter
PC001	Photovoice: a new teaching method for health promotion	Kritsana Suvarnabhumi
PC002	Community based medical learning in the undergraduate curriculum in Sri Lanka	Anthony De Silva Seneviratne
PC003	Time management skills in final year medical student, Khon Kaen University	Pranom Buppasiri
PC004	Integrating public health in the clinical setting: the TB clerkship	Janice Johnson
PC005	Problem-based learning online: an experience	Gregory J S Tan
PC007	Knowledge, skills and attitudes of medical students at the University of Hong Kong in relation to smoking cessation	Shobha Shetye
PC008	Implementation and evaluation of PBL-based education for nursing students: a pilot study	Dianaty Mansour
PC009	The PBL in surgery, is it possible?	Monthon Mekanantawat
PC010	Teaching health by local culture	Preecha Bumrungkarn
PC011	Khon Kaen University medical student preparation in national board license examination step I	Sakkarn Sangkhamanon
PC012	Students' perception of the study guide in respiratory system II course	Danai Wangsaturaka
PC013	Graduate students' perspectives on problem-based learning in the social medicine course	Jia He
PC014	Medical students' opinions related to rural community projects	Suchat Nopadol
PC015	Independent study patterns among medical students at the University of the East Ramon Magsaysay Memorial Medical Center, Philippines	Georgina Bermudez Tungol- Paredes
PC016	Integrating evidence - based medicine (EBM) in bedside teaching: a pilot study at Khon Kaen Hospital	Thammasorn Piriyasupong
PC017	Teaching art in health promotion	Supreeya Wongtra-ngan
PC018	Comparison of 25 and 27 gauge needle in spinal anesthesia learning curve for anesthesia residency training	Somrat Charuluxananan
PC019	The use of log books as a model for evaluation of clinical education of fundamentals of nursing	Mohmmad Hassan Meshkibaf

October 25th, 2007: 15.30 - 16.00

Exhibition hall

Code	Abstract title	Presenter
PF001	Clinical radiology teaching and learning process assessment among the fifth year medical students, Faculty of Medicine, Khon Kaen University	Jaturat Kanpittaya
PF002	Patient encounter logs can provide evidence of meeting satisfactory standards of clinical experience and help to improve quality of teaching in a family medicine clerkship	Beverly Raasch
PF003	Self-confidence and its related factors of medical students in accurate performance of physical examination skills	Jamaree Teeratakulpisarn
PF004	The evaluation of integrated curriculum based on the students' perspectives during 6 years of implementation	Oh Sun-A
PF005	The survey of educational status about dentistry students in 1997-2001 in Rafsanjan University of Medical Science	Maryam shahabinejad
PF006	Evaluation of community medicine course in 2006 by the fifth year medical students, Faculty of Medicine, Khon Kaen University	Piyathida Kuhirunyaratn
PF007	The evaluation of ICM using Kirk Patrick model at Faculty of Medicine, Siriraj Hospital, Mahidol University	Pacharee Tewsikhares
PF008	Evaluation of applied knowledge in using parasitology in curing patients of medical students at Faculty of Medicine, Siriraj Hospital, Mahidol University, Thailand	Supathra Tiewcharoen
PF009	The first three months as the new doctors: what are the problems?	Petch Alisanant
PB001	A comparative study of structure interview and academic examination performance	Wilai Anomasiri
PJ001	Internet use and training needs of Shiraz, Jahrom and Fassa Medical Schools	Mitra Amini
PJ002	Proper use of statistics in medical research, and position of probability and statistics in high school mathematics	Wataru Ohashi
PJ003	A 'general medical teacher': a missing link in undergraduate medical education?	E.S.Prakash

October 26th, 2007: 10.30 - 11.00

Exhibition hall

Code	Abstract title	Presenter
PI001	Moral and ethics development in medical photographic II	Dusadee Musikpodoke
PD001	Lived clinical learning experiences of medical students: a qualitative approach	Hossein Karimi Moonaghi
PD002	A structural equation model of educational achievement, emotional quotient and accreditation part I examination of 3rd year medical of undergraduate students, Faculty of Medicine, Siriraj Hospital, Mahidol University	Puanyanuat Pinchoo
PG001	Learning manual skills in spinal anesthesia and orotracheal intubation: is there any recommended number of cases for anesthesia residency training program?	Somrat Charuluxananan
PG002	Academic achievement for postgraduate study after Siriraj graduate scholarship granting	Uraiwan Kositanont
PK001	A preliminary study on the validity and reliability of evaluating forms assessing the faculty members' teaching approaches	Majidi, Fahimeh
PK002	Patient attitudes towards medical students in Riyadh, Saudi Arabia	Mohammed Othman Al-Rukban
PK003	Correlation between nicotine dependency with personality types among students of Rafsanjan Universities - Iran	Bakhshi Hamid
PK004	Knowledge, attitude and practice of infectious disease residents of Shahid Beheshti Medical University towards evidence-based medicine	Shervin Shokouhi
PK005	Achievement evaluation among graduated technology in biomedical communications students, Faculty of Medicine, Khon Kaen University, 2004	Chongchaareon Metta
PK006	Problem and obstacle during internship training in the first 6 months of 2006-7	Mayara Pejarasangharn
PK007	Self evaluation in management of 42 emergency conditions by interns	Pungpayom Keawpila
PK008	Self evaluation of 24 essential skill competency of the interns	Nutrada Moonsuwan
PK009	CIPP model in residency accreditation	Eva Irene Yu-Maglonzo
PK0010	Occupational values for dental profession of dental students in Korea	Young Hee Lee
PK0011	The effect of watercolor paintings and arts on stress reduction and self esteem of medical students	Witchate Pichaisak
PK0012	Are there any interrelations between student satisfaction and the results of Chulalongkorn University curriculum quality assurance self-assessment? The case study of Faculty of Medicine, Chulalongkorn University	Suwannee Phancharoen
PK013	A survey for instructional methods in clinical clerkship	So Dug Lim

Articles from speakers

The main auditorium

Are There any Win-win Situations in Medical School Ranking Game?

Peter Dieter, Germany
Dean of the Medical Education & Student Affairs,
Faculty of Medicine, Dresden Technical University

In 2006 principles on ranking of higher education institutions have been published by the International Ranking Expert Group (IREG) which was founded in 2004 by the UNESCO European Centre for Higher Education (UNESCO-CEPES) (http://www.che.de/downloads/Berlin_Principles_IREG_534.pdf).

Rankings are necessary for the following reasons

Rankings serve many purposes:

- Demands from consumers
- Stimulation of competition among institutions
- Providing rationale for allocation of funds
- Differentiation among different types of institutions, programs, disciplines
- Contribution to the definition of "Quality"
- Part of framework of national accountability
- Part of quality assurance program.

However

Following features of ranking and corresponding league tables have to be defined nationally and internationally

- Purposes and goals
- Design and Weighting of Indicators
- Collection and processing of data
- Presentation of ranking results.

Presented at the 4 th Congress of the Asian Medical Education Association on October 24-26, 2007 at Chulalongkorn University, Thailand

Quality Accreditation
The Role of International Organization

P.T Jayawickramarajah, MD, Med, PhD
World Health Organization Representative to Thailand

Quality concerns in academic institutions involve a totality of systems, resources and information devoted to maintaining and improving the quality and standard of teaching, scholarship and research and of student learning experiences. The process of quality improvement in education envisages both internal and external quality assurance process. External quality assurance in medical education is usually carried out through a mechanism of accreditation, practice audit, recertification and national licensing examination. The system of accreditation is aimed at protecting educational quality and improving curricular dynamics. In professional educational programs accreditation is a consultative process involving all major stakeholders with the outcomes open to external public scrutiny.

International organizations are concerned with improvement of quality of education focused on relevance of the programs for the practice of the graduates in the society and their contribution to knowledge generation and innovation. Several international development partners have been involved in quality accreditation of health professional schools at different levels. WHO has provided technical, expertise and leadership in the process of quality improvement and accreditation of health professional educational institutions. Currently, WHO is working very closely with the WFME in the development and implementation of global and national standards for accreditation.

In the SEA Region, quality issues and relevance were addressed through community orientation of medical education from1960-1970. Regional Teacher Training Centers (RTTC) were established in Chulalongkorn University in Thailand and Peradeniye University in Sri Lanka in 1973 followed by several National Centers (NTTC) in India and other member countries. The Reorientation of Medical Education Movement (ROME) initiated in 1979 continued through 1993 with inter-country meetings and publications, addressing Regional and national needs, teaching learning strategies, and innovation such as Problem Based Learning (PBL). Since 1998 Quality movement picked up momentum with a Silver Jubilee of RTTCs on the theme on Quality of Medical Education held in Kandy, Sri Lanka. Equivalence of qualifications in medical educational programs was also addressed in Nepal in an inter-country meeting.

Our focus on relevance of programs in medical education continued with clear identification of weakness in public health education at a global meeting held in Calcutta, India in 1999, culminating in Calcutta Declaration on Public Health.

Accreditation guidelines for public health education were developed at a Regional Consultative meeting in Chennai, India in 2002.

As an international organization, WHO has facilitated quality improvement at global, regional and country levels. We are still in the process of initiating / facilitating relevant networks and alliances such as South East Asia Public Health Education Institutes Network (SEAPHEIN), and South East Asian Regional Association for medical Education (SEARAME). Establishment of these networks and alliances such as Asia Pacific Action Alliance on Human Resources for Health (AAAH) are expected to improve the quality of health workers and medical professionals through appropriate quality assurance and accreditation mechanism.

Presented at the 4 th Congress of the Asian Medical Education Association on October 24-26, 2007 at Chulalongkorn University, Thailand

Quality Accreditation Alert

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Abstract

The world movements from liberalization of trade in services, calls for increased physical mobility of international students and faculty, and fierce competition of export of education have gradually shaped a different future of higher education and its services. Quality accreditation has become high on the regional/ global agenda, requiring collective synergy of a larger pool of stakeholders in the higher education community and beyond.

Health and education are two crucial cross-cutting issues in most of the sectors. International organizations directly involved in higher education and health need to maximize their assets drawn from being 'omnipresent', and their expertise as valuable resources for the region/areas they serve. Their broader scope of work enables them to be in a good position to offer a bird's eye view, with opportunities to be one of the very first to be aware of current and future trends of quality accreditation, and their implications while being able to see critical links across sectors that may bear impacts on quality accreditation in the longer term, e.g. from health to education, from trade to health, and vice versa.

At the same time, their close associations with national governments, public health and higher education institutions could help them better serve as a true catalyst to alert and ignite national governments toward further investigation into genuine scholarship and leadership to stand ready amid the speedy world changes.

In this paper, specific reference will be made to Thailand's experience in this very area, centered on the key role of medical schools in taking such a lead to drive the overall national efforts. With possible support from the international organizations, the schools could further maximize quality accreditation efforts, generating benefits to their own and other institutions.

The author will therefore attempt to answer some of the key questions. They include, 'What then are the priority issues of relevant international organizations?', 'What should be their most appropriate roles?', and 'How should international organizations address them?'

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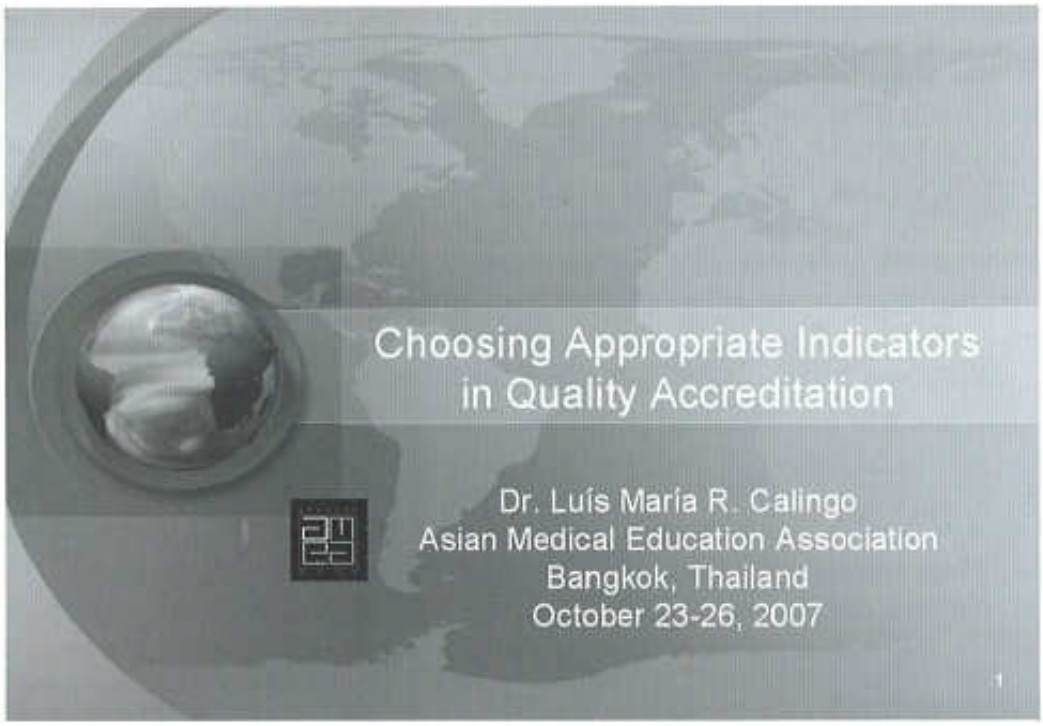
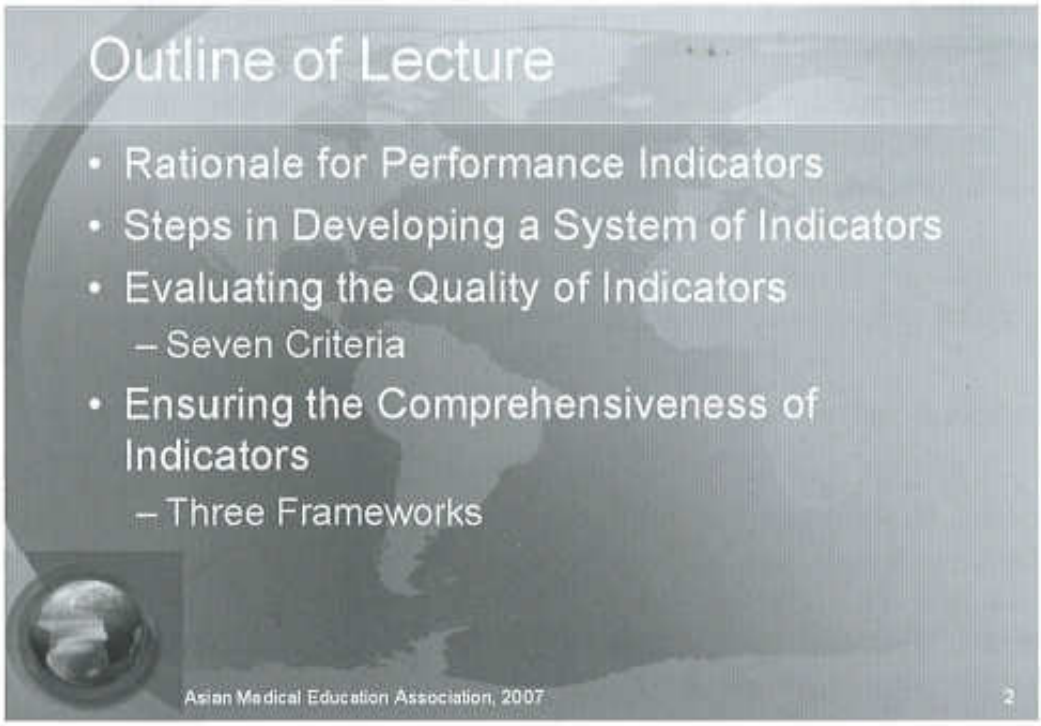
Choosing Appropriate Indicators in Quality Accreditation

Luis Maria R. Calingo
Dean of the School of Business and Leadership,
Dominican University of California
Board of Examiners for the Baldrige National Quality Award





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The Quest for Accountability

- Driving Factors for Accountability in Higher Education
  - Increased global competition
  - Decreasing government funding for higher education
  - Decline in public confidence in higher education
- America's Response: Focus on Institutional Effectiveness
  - Malcolm Baldrige National Quality Award (Public Law 100-107, 1987)
  - No Child Left Behind Act (P.L. 107-110, 2002)

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Uses of Performance Indicators

- Accreditation
- Search for a common language
- University or college dialogue with governments
- Educating our publics and stakeholders
- Accountability
- Public reporting
- Defining standards for quality and excellence
- Strategic planning
- Achieving consensus on quality and performance Quality improvement
- Defining the domains of evaluation of faculty and administrators
- Demonstrating multidimensionality of quality and excellence in the improvement space

Gilles G. Nadeau, *The Use of Quality and Excellence Indicators in Post-secondary Education*, Canadian Society for the Study of Higher Education (CSSHE Professional File, No. 10), Fall 1992.

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Steps in Developing a System of Performance Indicators

1. Develop a conceptual framework based on research results and interests of policy makers and educators.
2. Obtain commitment and cooperation of leaders.
3. Involve policymakers, educators, researchers, and data managers in selecting priority indicators.
4. Select a limited number of indicators and begin developing or refining them.

Rolf K. Blank, "Developing a System of Education Indicators: Selecting, Implementing, and Reporting Indicators," American Education Research Association, 1993.

Richard J. Shavelson et al., "Steps in Developing an Indicator System," ERIC/TM Digest 338700, 1991.

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Two Issues in Selecting Indicators

- Evaluating the Quality of Each Indicator
- Ensuring the Comprehensiveness of the Set of Performance Indicators

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Evaluating the Quality of a Performance Indicator

- Direct
- Objective
- Adequate
- Quantitative where possible
- Segmented where appropriate
- Practical
- Reliable

United States Agency for International Development, *Selecting Performance Indicators*, TIPS No. 6 (Washington, DC: USAID Center for Development Information and Evaluation, 1996)

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Direct

- Measure as closely as possible the result that the indicator is intended to measure.
- Do not peg at a higher or lower level than the result being measured.
  - Example: Performance of Graduated Students
    - Performance of graduates on medical board examinations is a direct measure.
    - But number of students graduated IS NOT.
- Proxy indicators are appropriate if direct indicators are impossible to measure.
  - Indirect measures that are linked to the result by one or more assumptions
  - Example: Community Service Requirement
    - Graduating medical students are required to perform pro-bono medical services for the urban poor.
    - Percentage of households whose houses have galvanized-iron roofs, radios, or television

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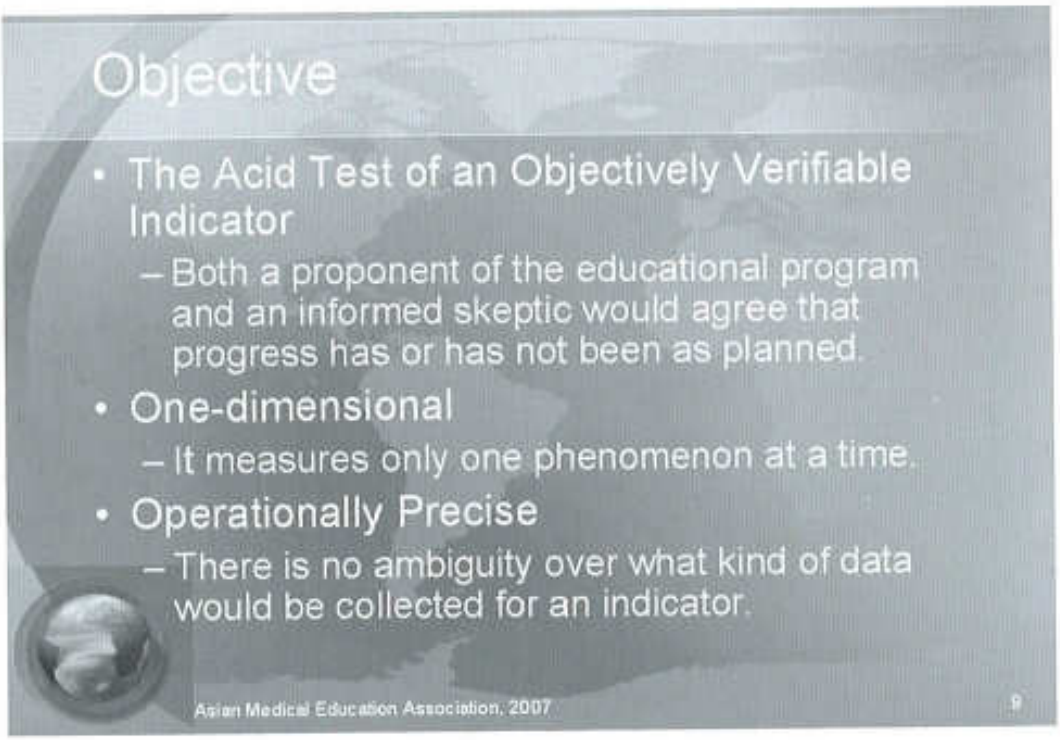
Objective
• The Acid Test of an Objectively Verifiable Indicator
– Both a proponent of the educational program and an informed skeptic would agree that progress has or has not been as planned.
• One-dimensional
– It measures only one phenomenon at a time.
• Operationally Precise
– There is no ambiguity over what kind of data would be collected for an indicator.
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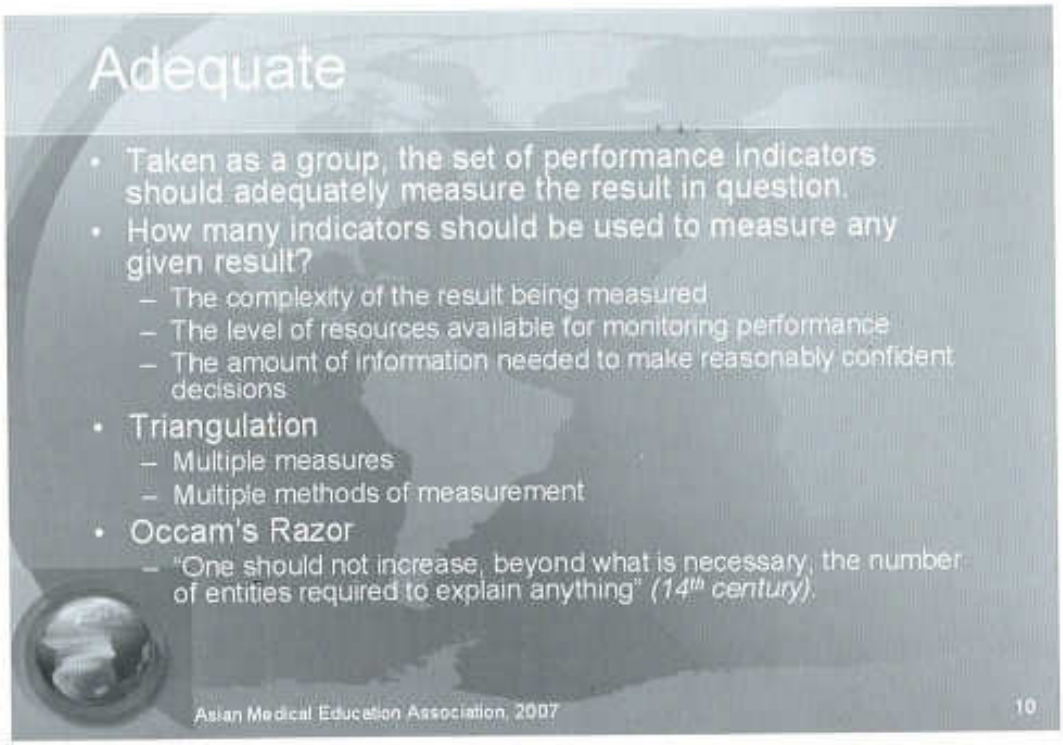
Adequate
• Taken as a group, the set of performance indicators should adequately measure the result in question.
• How many indicators should be used to measure any given result?
– The complexity of the result being measured
– The level of resources available for monitoring performance
– The amount of information needed to make reasonably confident decisions
• Triangulation
– Multiple measures
– Multiple methods of measurement
• Occam's Razor
– "One should not increase, beyond what is necessary, the number of entities required to explain anything" (14th century).
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Quantitative, Where Possible

- Quantitative
  - Examples:
    - Test scores
    - Rating scales
    - Indexes
- Qualitative
  - Descriptive observations
  - Examples:
    - Peer opinion
    - Milestones

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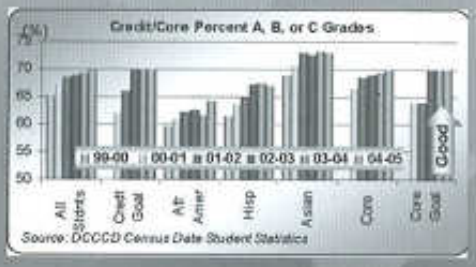
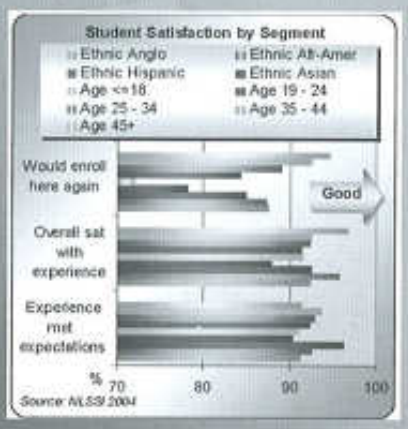
Segmented, Where Appropriate

Examples from Richland College, Texas (Baldrige Award recipient, 2006)





Segmentation of student performance and satisfaction results

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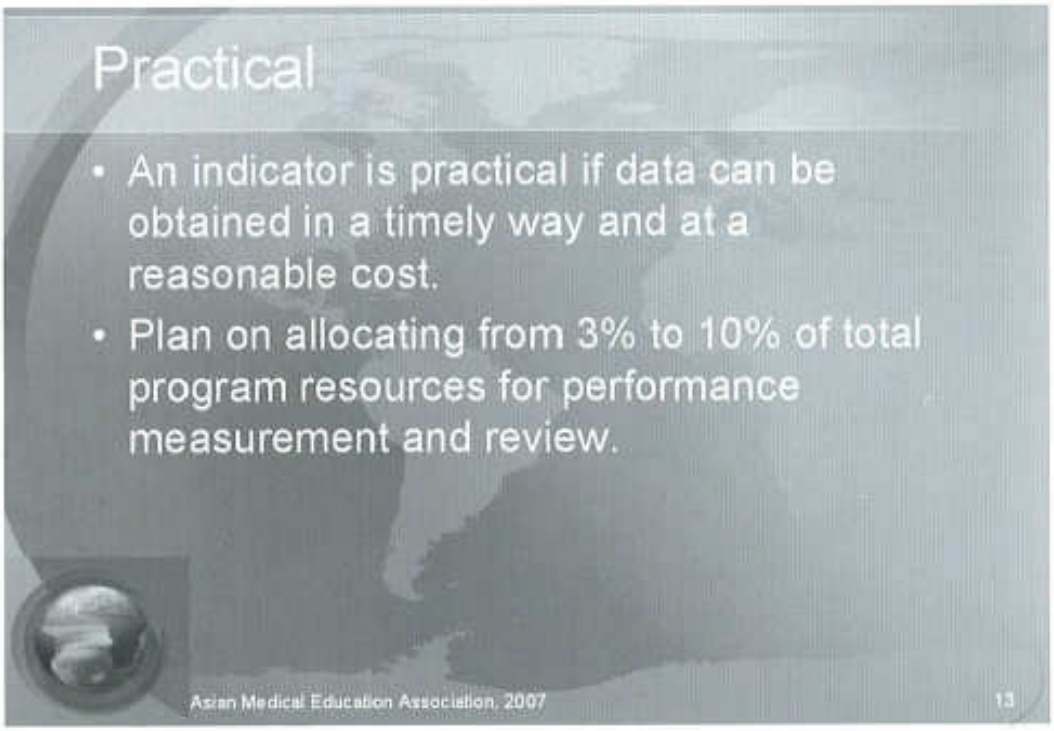
Practical
• An indicator is practical if data can be obtained in a timely way and at a reasonable cost.
• Plan on allocating from 3% to 10% of total program resources for performance measurement and review.
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Reliable
• The data must be of sufficiently reliable quality to build confidence in decision-making.
• Data quality
– Includes accuracy, integrity, reliability, timeliness, security, and confidentiality
• "Fairly quick and fairly clean" approach *(Rapid Rural Appraisal)*
– Ignore the "hegemony of statisticians"
– Focus on "optimal ignorance" and "proportional accuracy."
Robert Chambers, *Rural Appraisal: Rapid, Relaxed and Participatory* (Brighton, England: Institute of Development Studies, 1992)
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Ensuring Comprehensiveness of Set of Performance Indicators

- Baldrige Award Education Criteria for Performance Excellence
  - Reference Discipline: Total Quality Management
- Balanced Scorecard
  - Reference Discipline: Accounting
- Logic Model
  - Reference Discipline: Institutional Effectiveness

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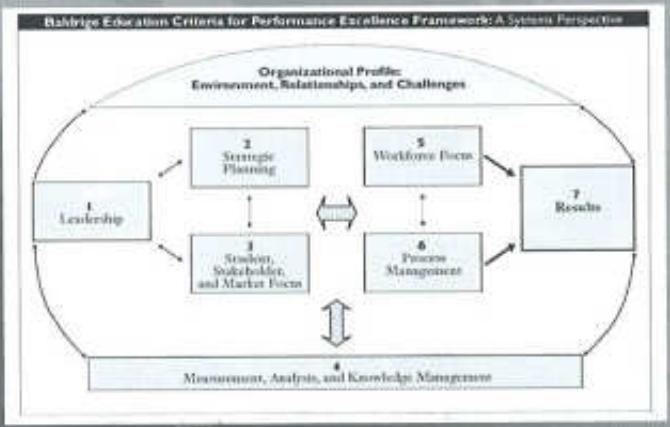
Baldrige Award Framework



United States National Institute of Standards and Technology, *Baldrige Education Criteria for Performance Excellence*, 2007.

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Sample Key Performance Indicators

Kenneth C. Monfort College of Business, University of Northern Colorado (Baldrige Award recipient, 2004)

Figure 4.1-2
Primary Key Performance Indicators (KPIs) of Organizational Performance

KPI	Strategic Categories	Source	Results
Quality of incoming freshmen students (avg. ACT)	Recruits	UNIC	7.3-6, 7.5-1, 2
Quality of transfer students (avg. GPA)	Recruits	UNIC	7.5-3
Student retention rates	Students	UNIC	7.3-20
Graduates major counts	Students	UNIC	7.3
MCB current student satisfaction (% recommending)	Students	MCB	7.2-16
Student learning in business (avg. overall ETS)	Curriculum	ETS	7.1-1
High-touch curriculum (avg. class size)	Curriculum	MCB	7.5-11, 13
Quality of faculty (% academic or professional qualification)	Faculty	UNIC	7.4-1
Quality of professional faculty (% professional qualification)	Faculty	UNIC	7.4-2
Quality of academic faculty (assessment by ranking students)	Faculty	EBI	7.2-4,5
Faculty program satisfaction (avg. overall)	Faculty	EBI	7.4-7
Student satisfaction—facilities/computing resources	Facilities/technology	EBI	7.2-8
Faculty satisfaction—computing resources	Facilities/technology	EBI	7.4-10
Total available state funds (annual)	Financial resources	UNIC	7.5-1
Total available private funds (annual)	Financial resources	UNIC	7.5-3
Placement of graduates (% employed full-time)	Graduates	UNIC	7.5-4
Exiting student satisfaction (avg. overall)	Graduates	EBI	7.2-1
Alumni satisfaction (avg. overall)	Graduates	EBI	7.2-2
Employer satisfaction (avg. overall)	Employers	MCB	7.2-3
MCB press coverage (media coverage generated)	Program reputation	MCB	7.5-9, 10

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Quality Awards in Asia

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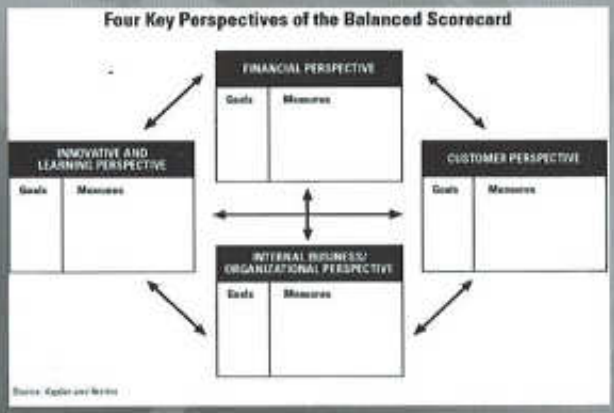
Balanced Scorecard



Robert S. Kaplan and David P. Norton, *The Balanced Scorecard: Translating Strategy into Action* (Boston, Mass.: Harvard Business School Press, 1996).

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Sample Balanced Scorecard

College of Business Administration, California State University, Long Beach (California Prospector Award, 2001)

	Student/Participant/Alumni Perspective		Internal Process Perspective
S1	Improve student learning	P1	Design and develop educational programs and offerings that meet student/participant and market needs
S2	Increase the value (financial impact) of educational programs on students		
S3	Increase community participation in educational programs and offerings	P2	Increase instructional effectiveness
S4	Increase student/participant satisfaction in educational programs and offerings	P3	Increase effectiveness of student services and support processes
	Funder/Financial Perspective		**Innovation and Development Perspective**
F1	Maintain level of state funding	D1	Increase faculty and staff retention
		D2	Increase quantity and quality of intellectual contributions
F2	Increase total revenue from external sources	D3	Increase the percentage of educational programs and offerings that are interdisciplinary
F3	Increase efficiency in resource utilization	D4	Increase investment in technology to support instruction and intellectual contributions
		D5	Organize and communicate the Knowledge Base of the College

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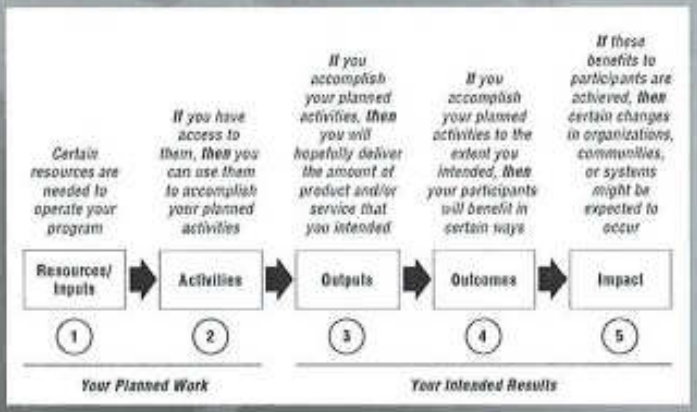
The Logic Model



W. K. Kellogg Foundation, *Logic Model Development Guide* (Battle Creek, Mich.: W. K. Kellogg Foundation, 2001), 3.

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Sample Logic Model

Florida Alcohol and Drug Abuse Association

Sample Logic Model
Theory of Change

When a community comes together and implements multiple strategies to address youth use of methamphetamines in comprehensive way, youth will be more likely to use later and use less

Problem	Problem Statement: But why?	Problem Statement: But why how?	Strategies	Activities	Outcomes: Short Term	Outcomes: Intermediate	Outcomes: Long-Term
Too many youth are using meth-amphetamine drugs	Meth is easy to make	Over-the-counter products are sold that contain ephedrine and pseudoephedrine used to make meth	Increase barriers and pass policy	Pass ordinance making products with these ingredients available only by prescription	Community mobilization Sample ordinance developed	Ordinance passed	80% of high school seniors never try meth Less than 5% of high school seniors will report 30 day meth use 75% of youth 12-18 report that meth use is risky or harmful 80% of youth 12-18 report disapproval of use by peers and adults
Meth is easy to get	Meth is widely sold at school	Increase barriers and pass policy Provide support	Pass zero tolerance policy at school Train teachers and school staff	Teachers can recognize signs of meth use in students	Zero tolerance policy that requires youth who are caught using meth to attend drug counseling		
Meth is not perceived to be harmful	Lack of public education about dangers of meth use	Provide information	Social norms campaign on dangers of meth use	Social norms campaign rolled out and developed and widely posted	Youth report believing the campaign materials		
Meth labs are hard to find	Labs are plentiful, easily hidden, hard to locate	Build skills and provide information Increase barriers to manufacture meth Change physical design	Educate police to spot meth labs Increase law enforcement to bust labs	Public reports possible meth labs to law enforcement	Increased tips of meth labs by law enforcement		

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Summary

- Performance indicators are important.
- Performance indicators serve several purposes.
- When selecting indicators, stakeholder involvement is a must.
- Good performance indicators are direct, objective, quantitative where possible, segmented where appropriate, practical, and reliable.
- To ensure the comprehensiveness of indicators chosen, evaluate the set against the Baldrige education criteria, the balanced scorecard, or the program's logic model.

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About the Resource Person

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- Formerly Dean of the Boler School of Business, John Carroll University, and the College of Business Administration, California State University at Long Beach
- Examiner, Malcolm Baldrige National Quality Award, 1997-present
- Member, Editorial Board, *Quality Management Journal*
- Developer and Instructor, ASQ Baldrige Award Self-Assessment Training for Education, 1998-2003
- Asian Productivity Organization Technical Expert
  - National Quality and Business Excellence Awards (since 1996) – Indonesia, Mongolia, Pakistan, Philippines, Sri Lanka, Thailand, and Vietnam
  - Infusion of Quality Management in Higher Education (since 1995) – Philippines and Thailand
- MBA, Ph.D., University of Pittsburgh, 1981, 1984; BSIE, MURP, University of the Philippines, 1971, 1976
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1996, Number 6

Performance Monitoring and Evaluation

TIPS

USAID Center for Development Information and Evaluation

SELECTING PERFORMANCE INDICATORS

To manage for results, USAID operating units need reliable and timely data on their program results. Performance indicators define the data to be collected to measure progress, and are thus an indispensable tool for decision-making.

This Tips offers advice for selecting appropriate and useful performance indicators.

What Are Performance Indicators?

Simply put, performance indicators are measures that describe how well a program is achieving its objectives.

Whereas a results statement identifies what we hope to accomplish, indicators tell us specifically what to measure to determine whether the objective has been achieved. Indicators are usually quantitative measures but may also be qualitative observations. They define how performance will be measured along a scale or dimension, without specifying a particular level of achievement. (Planned levels of achievement -- targets -- are separate from the indicators themselves).

USAID operating units have developed hundreds of performance indicators in recent years. Common examples include the dollar value of non-traditional exports, private investment as a percentage of gross domestic product, contraceptive prevalence rates, child mortality rates, and percentage of eligible voters voting.

Why Are Performance Indicators Important?

Performance indicators are at the heart of a performance monitoring system -- they define the data to be collected to measure progress and enable actual results achieved over time to be compared with planned results. Thus, they are an indispensable management too for making performance-based decisions about program strategies and activities.

Other ways that performance indicators, and the data collected on them, can be used include the following:

- To orient and motivate operating unit staff toward achieving results
- To communicate USAID achievements to host country counterparts, other partners, and customers and
- To report results achieved to USAID's stakeholders, including the U.S. Congress, Office of Management, and Budget, and citizens.

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Use a Participatory Approach

Reengineering requires operating units to use a participatory approach in selecting indicators for their performance monitoring system. Collaborating closely with development partners, host country counterparts, and customers at each step of the indicator selection process has many benefits. It makes good sense to draw on the experience of others and obtain their consensus throughout the process.

For What Results Are Performance Indicators Required?

Reengineering guidance requites operating units to develop performance indicators for all strategic objectives, strategic support objectives, special objectives, and USAID-sup-ported intermediate results (referred to below as SOs and IRs) identified in the results frameworks.

Some means should also be developed for gathering information on the results supported by development partners and on the status of critical assumptions, although less rigorous standards apply.

Also, SO teams are required to collect data regularly on activity-level inputs, outputs, and processes to ensure they are proceeding as expected and are contributing to relevant IRs and SOs. This implies some thought be given to developing indicators for monitoring progress at the activity level.

Steps in Selecting Performance Indicators

Selecting appropriate and useful performance indicators is a fairly straightforward process, but requires careful thought, iterative refining, collaboration, and consensus-building. Here are some suggestions. Although presented as discrete steps, in practice some of these can be effectively undertaken simultaneously.

Step 1. Clarify the results statements.

Good performance indicators start with good results statements that people can understand and agree on.

Carefully consider the result desired. Review the precise wording and intention of the strategic objective, strategic support objective, special objective, intermediate result, critical assumption, or result supported by partners. What exactly does it say?

Avoid overly broad results statements. Sometimes objectives and results are so broadly stated it is difficult to identify the right performance indicators. Instead, specify those aspects believed to make the greatest difference to improved performance. For example, rather than using a broad results statement like "improved capacity" of a host country institution, clarify those aspects that program activities emphasize. For example, improved personnel recruitment process, or improved management skills.

Be clear about what type of change is implied. What is expected to change -- a situation, a condition, the level of knowledge, an attitude, a behavior? For example, changing a country's law about voting is very different from changing citizenís awareness of their right to vote, which again is different from their voting behavior. Each type of change is measured by different types of indicators.

Also, clarify whether the change being sought is an absolute change, a relative change, or no change.

--*Absolute changes* involve the creation or introduction of something new.

--*Relative changes* involve increases, decreases, improvements, strengthening of weakening in something that currently exists, but at a higher or lower level than is considered optimum.

--*No change* involves the maintenance, protection or preservation of something that is considered fine as is.

Be clear about where change should appear. Is change expected to occur among individuals, families, groups, communities, regions? Clearly, a change in the savings

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rate for an entire nation will be quite different than for a particular sector of the business community. This is known as identifying the "unit of analysis" for the performance indicator.

Identify more precisely the specific targets for change. Who of what are the specific targets for the change? For example, if individuals, which individuals? Average citizens or exporters? All exporters or only exporters of non-traditional agricultural products?

Study the activities and strategies directed achieving change. Some activities will produce the desired change directly, while other activities will produce the change less directly. For example, activities to develop microenterprises aim to increase employment directly. Activities to reform economic policies may have the same effect, but less directly. Before appropriate indicators can be developed, clarity is needed about the expected relationship between activities and their intended results, in order to understand exactly what changes are reasonable to expect.

Step 2. Develop a List of Possible Indicators.

There are usually many possible indicators for any desired outcome, but some are more appropriate and useful than others. In selecting indicators, don't settle too quickly on the first that come most conveniently or obviously to mind. A better approach is to start with a list of alternatives, which can then be assessed against a set of selection criteria.

To create the initial list of possible indicators, tap the following sources:

- internal brainstorming by the strategic objective team
- consultations with experts in the substantive program area
- experience of other operating units with similar indicators.

The key to creating a useful initial list of performance indicators is to be inclusive. That is, view the desired result in all its aspects and from all perspectives. Allow sufficient opportunity for a free flow of ideas and creativity.

Tip: When developing indicators, consider tapping information from a) the PME database on Indicators other operating units have used for similar objectives; and b) ongoing work by technical groups in the Agency goal areas to develop common or generally used indicators.

Step 3. Assess Each Possible Indicator.

Next, assess each possible indicator on the initial list. Experience suggests using seven basic criteria for judging an indicator's appropriateness and utility. These seven criteria are described in the box on the next page 4.

When assessing and comparing possible indicators, it is helpful to use a matrix with the seven criteria arrayed across the top and the candidate indicators listed down the left side. With a simple scoring scale, for example 1-5, rate each candidate indicator against each criterion. These ratings will help give an overall sense of the indicatorís relative merit, and help in the selection process. However, apply this approach flexibly and with judgment, because all seven criteria may not be equally important.

Step 4. Select the "Best" Performance Indicators.

The next step is to narrow the list to the final indicators that will be used in the performance monitoring system. They should be the optimum set that meets the need for *management-useful information at a reasonable cost.*

Be selective. Remember the costs associated with data collection and analysis. Limit the number of indicators used to track each objective or result to a few (two or three). Select only those that represent the most basic and important dimensions of our aims.

CDIE's Tips series provides advice and suggestions to USAID managers on how to plan and conduct performance monitoring and evaluation activities effectively. They are supplemental references to the reengineering directives system (ADS), chapter 203. For further information, contact Annette Binnendijk, CDIE Senior Evaluation Advisor, via phone (703) 875-4235, fax (703) 875-4866, or e-mail. Copies of Tips can be ordered from the Development Information Services Clearinghouse by calling (703) 351-4006 or by faxing (703) 351-4039. Please refer to the PN number. To order via the Internet, address requests to docorder@disc.mhs. compuserve.com

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SEVEN CRITERIA FOR ASSESSING PERFORMANCE INDICATORS

1. DIRECT. A performance indicator should measure as closely as possible the result it is intended to measure. It should not be pegged at a higher or lower level than the result being measured. For example *contraceptive prevalence rates* a direct measure of the result *increased use of family planning methods*. But *number of service providers trained* would NOT be a direct measure of the result *improved service delivery*. Just because people are trained does not necessarily mean they will deliver services better.

If using a direct measure is not possible, one or more proxy indicators might be appropriate. For example, sometimes reliable data or direct measures are not available at a frequency that is useful to managers, and proxy indicators are needed to provide timely insight on progress. Proxy measures are *indirect* measures that are linked to the result by one or more assumptions. For example, in rural areas of Africa it is often very difficult to measure income levels directly. Measures such as percentage of village households with roofs (or radios or bicycles) may be a useful, if somewhat rough, proxy. The assumption is that when villagers have higher income they tend to purchase certain goods. If convincing evidence exists that the assumption is sound (for instance, it is based on research or experience elsewhere), then the proxy may be an adequate indicator, albeit second-best to a direct measure.

2. OBJECTIVE. An objective indicator has no ambiguity about what is being measured. That is, there is general agreement over interpretation of the results. It is both unidimensional and operationally precise. To be *unidimensional* means that it measures only one phenomenon at a time. Avoid trying to combine too much in one indicator, such as measures of both access and use *operational precision* means no ambiguity over what kind of data would be collected for an indicator. For example, while *number of successful export firms* is ambiguous, something like *number of export firms experiencing an annual increase in revenues of at least 5 percent* operationally precise.

3. ADEQUATE. Taken as a group, a performance indicator and its companion indicators should adequately measure the result in question. A frequently asked question is "how many indicators should be used to measure any given result?" The answer depends on a) the complexity of the result being measured, b) the level of resources available for monitoring performance, and c) the amount of information needed to make reasonably confident decisions. For some results that are straightforward and have tried and true measures, one performance indicator may be enough. For example, if the intended result *increased traditional exports* the indicator *dollar value of traditional exports per year* is probably sufficient. Where no single indicator is sufficient, or where there are benefits to be gained by "triangulation" -- then two or more indicators may be needed. However, avoid using too many indicators. Thus to strike a balance between resources available for measuring performance and the amount of information managers need to make reasonably well informed decisions.

4. QUANTITATIVE, WHERE POSSIBLE. Quantitative indicators are numerical (number or percentage of dollar value, tonnage for example). Qualitative indicators are descriptive observations (an expert opinion of institutional strength, or a description of behavior). While quantitative indicators are not necessarily more objective, their numerical precision lends them to more agreement on interpretation of results data, and are thus usually preferable. However, even when effective quantitative indicators are being use qualitative indicators can supplement the numbers and percentages with a richness of information that brings a program's results to life.

5. DISAGGREGGATED, WHERE APPROPRIATE. Disaggregating people-level program results by gender, age, location, or some other dimension is often important from a management or reporting point of view. Experience shows that development activities often require different approaches for different groups and affect those groups in different ways. Disaggregated data help track whether or not specific groups participate in and benefit from activities intended to include them. Therefore, it makes good management sense that performance indicators be sensitive to such differences.

6. PRACTICAL. An indicator is practical if data can be obtained in a timely way and at a reasonable cost. Managers require data that can be collected frequently enough to inform them of progress and influence decisions. USAID operating units should expect to incur reasonable, but not exorbitant, costs for obtaining useful performance information. A rule of thumb, given in the reengineering guidance, is to plan on allocating 3 to 10 percent of total program resources for performance monitoring and evaluation.

7. RELIABLE. A final consideration in choosing performance indicators is whether data of sufficiently reliable quality for confident decision-making can be obtained. But what standards of data quality are needed to be *useful*? The data that a program manager needs to make reasonably confident decisions about a program is not necessarily the same rigorous standard a social scientist is looking for. For example, a low cost mini survey may be good enough for a given management need.

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Quality Accreditation: Cross-discipline Benchmarking

Richard Lewis
President of the International Network for Quality Assurance Agencies in Higher Education

The above is my theme but the sub-title I was given was:

"Substantial differences exist among the organizations of different disciplines. Can we compare the performance between these organizations? Are there any valid common indicators that can be used regardless of these differences?"

This paper is a bit unusual. Normally the speaker chooses a topic on which he or she has some clear ideas and then pontificates. On this occasion I very happily responded to an invitation to speak on a topic that had been chosen by others so my approach is rather more of the student set a difficult question with only a limited time to answer it. Well I guess it does us all some good to be put from time to time into the situation of the student.

A good student technique, if you can get away with it, is to question the question and play around with the words. It seems to me that the question might be usefully be rephrased in two slightly different ways.

One way of rephrasing is to ask "Is it possible to say that Degree Programme A, say in Physics is "better" than Degree Programme B, say, in Philosophy?"

Another way is to ask whether one compare the academic success as a graduate of a holder of a degree in physics against the holder of a degree in philosophy.

I will attempt in this paper to explore these questions but I must apologise for basing the analysis mainly on UK experience. This I must do because my experience is mainly derived from that country. But the UK would in any event be a good case study for the questions because, while the UK HE system has many virtues, it has one two very serious faults of which the most significant is the specialised nature of its degree programmes and the associated issue that less attention is paid to liberal or general education than is the case in many other countries.

I was not a success as an undergraduate, I had later to re brand myself in the area of finance. Of course I was mainly responsible for my lack of success but the university had more than a bit to do with it. It was back in the fifties and there was very poor coordination between what went on in school and in university and the Pure Mathematics department of my university started their syllabus some way above that of the Advanced Level syllabus I had followed at school.

The justification for this personal recollection is to point out that my mathematics degree was based on seven years of secondary school mathematics, the last two of which were reasonably advanced. In contrast had I done what I should have done, taken a degree in Economics, I would have started the subject from the beginning and in the first term I would have been working at a very basic level; in contrast we reached Theorem 100 in Pure Mathematics by the end of the first term.

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So does the fact that some degree courses start quite a way up the knowledge ladder while others start from the ground means that they cannot be comparable processes or experiences?

To remain at the level of anecdote, my personal experience of working in multi-faculty institutions was that there were considerable differences in the approaches of both staff and students in the various faculties such as Art and Design, Engineering and Technology and Arts and Humanities. And I never had the "pleasure" of working in a university that had a medical faculty which I understand have many interesting features of their own.

In this context I think there is a great risk of oversimplification when sweeping statements are made, especially by politicians, about "higher education" which imply a very homogeneous set of activities and often ignores the considerable differences not only between subject cultures but also between full and part-time students and school leavers and mature students.

But enough of anecdote, this is an academic conference which requires more than a touch of empirical data.

Hours of Study

By a very convenient coincidence the Higher Education Policy Institute (HEPI) published in September 2007 a report entitled "The Academic Experience of Students in English Universities" [1]

The report based on a survey of students indicated that there were considerable differences between the average number of hours worked per week by students of different disciplines as shown in the following table.

Subject	All universities
Medicine and dentistry	35.9
Veterinary agriculture and related subjects	33.7
Architecture, building & planning	31.1
Subjects allied to medicine	30.4
Engineering & technology	29.2
Physical sciences	28.0
Law	26.5
Mathematical & computer sciences	26.0
All subjects	**26.0**
Education	25.3
Creative arts & design	25.2
Biological sciences	25.0
Linguistics, classics & related subjects	23.2
Historical & philosophical studies	22.5
Social studies	22.0
Business & administrative studies	20.9
Mass communications & documentation	20.3

[1] T Sastry and B Bekhradnia, The Academic Experience of Students in English Universities, Higher Education Policy Institute, www.hepi.ac.uk

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Thus medical students study for 1.8 times more hours than students following programmes in mass communications and documentation.

It is also interesting to note, reverting to my earlier point about Mathematics and Economists, that despite their seven years start mathematicians work substantially more hours than social studies students.

Perhaps I should not point out that the survey revealed that English students worked less than the students of any of the eight European countries included in a 2005 survey. The most industrious students were the Portuguese who averaged over 40 hours per week.

Final Awards

The UK system does not use the grade point system but, with some exceptions, the honours classification system. Honours degrees are divided into four categories first, upper second, lower second and third. The exceptions are that there are few institutions which offer pass degrees while in some disciplines, notably medicine, the majority of degree courses do not use the classification system.

Most people believe that a first or an upper second represent a satisfactory level of achievement. It is thus interesting to observe the differences between the percentages of first and upper second honours degrees for various disciplines.

Percentages of First and Upper Second Class Honours Degrees 2005-06

Veterinary science	75.0
Historical & philosophical studies	72.8
Languages	71.9
Medicine & dentistry	63.6
Creative arts & design	62.4
Physical sciences	62.0
Mathematical sciences	61.7
Biological sciences	61.4
Social studies	60.7
Subjects allied to medicine	59.5
Mass communications & documentation	59.9
Engineering & technology	59.2
Law	56.8
Agriculture & related subjects	56.6
Combined	56.1
Architecture, building & planning	54.6
Education	53.8
Computer science	50.8
Business & administrative studies	50.1

(Source, Higher Education Statistics Agency, www.hesa.ac.uk)

There as, as can be seen, some striking differences. For example, a student of historical and philosophical

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studies is nearly one and half times as likely to obtain a good honours degree as a business student.

While it is slightly unfortunate that Sastry and Bekhradnia have used a slightly different from of subject classification than HESA it can be seen that there appears to be no relationship between the hours worked and class of degrees obtained. Thus, the historians and philosophers put in fewer hours than, say, law or engineering students but yet, on average, obtain better degrees.

I have to admit that there is some debate about the extent to which these different disciplinary results can be explained by the students' entry qualifications but there are those, of which I am one, who believe that there are considerable disciplinary differences, one might actually think of them as cultural differences, in the grading of examination papers.

The UK has a well established external examiner system which requires all universities to include academics from other universities (or in the case of some applied disciplines practitioners) as members of examination boards. This system has been reasonably successful in ensuring comparability of standards within disciplines but has not, at least in my view, been of much help in ensuring comparability between disciplines.

This may not have been such a major problem when the majority of degree courses were in single disciplines because comparisons were then made between graduates who had been subject to the same disciplinary conventions but the situation is exacerbated by the growth of joint honours degrees and modular degrees where a student studies across a range of disciplines. Here there is a danger that the students' final award may be an arithmetical artefact influenced by different grading conventions.

I apologise again for my focus on the UK. It may that other countries, perhaps especially those that have not suffered from the over concentration on specialist degrees, might have taken steps to minimise the differences between grading conventions. I hope that it is the case and I also hope to learn what steps they have taken to overcome the problem.

Comparisons of like with like

I have argued so far that disciplinary differences are such that, as one is not comparing like with like, it is not possible to say that a particular degree in physics is better than a particular degree in philosophy.

It may of course be possible, especially if one believes in the virtues of ranking or league tables, to say that in comparison to other degrees in physics the physics degree in university A is "better" than the philosophy degree in the same university.

That brings us to the topic of subject benchmarking which is being dealt with by others at this conference. But of course the subjects of subject and cross-disciplinary benchmarks are linked because if there are problems with determining appropriate subject benchmarks there are even greater problems associated with cross-disciplinary benchmarks.

My main concern about the use of subject benchmarks is they are usually unrelated to the needs of a particular student or potential student. Thus for example the degree programme that might be best from the perspective of a high achiever who can travel to any university in the country might not be best from that of a middle of the range achiever or of someone who is, shall we say, a minimum achiever, or from the point of view of a mature student who has to study from part-time from home.

Generic Competences

But a degree is a degree and thus, it might be argued, that all graduates should possess abilities or attitudes or something that distinguishes them from, say, a diploma holder. Thus can we compare the "graduateness" of a physics graduate with that of a philosophy graduate?

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The last eight to ten years has seen the emergence in many parts of the world of "Qualifications Frameworks" that are often associated with "Subject Benchmarks". The subject benchmarks indicate the competences that would be expected to be possessed by the holder of a degree in a given discipline while the Qualification Framework statements deal, amongst other things, with the generic competences that would be expected to be possessed by the holder of, say, a bachelors degree irrespective of the discipline.

As in so many aspects of higher education development there are some terminological difficulties here in particular concerning the phrases "learning outcomes" and competences". The Tuning website[2] (of which more a little later) distinguishes between the two terms as follows:

"Tuning makes the distinction between learning outcomes and competences to distinguish the different roles of the most relevant players: academic staff and students/learners. Desired learning outcomes of a process of learning are formulated by the academic staff, preferably involving student representatives in the process, on the basis of input of internal and external stakeholders. Competences are obtained or developed during the process of learning by the student/learner."

One of the earliest of the Qualifications Frameworks was developed by the UK Quality Assurance Agency (QAA). The following, which relates to honours bachelors degrees is taken from "The framework for higher education qualifications in England, Wales and Northern Ireland" which was issued in January 2001.

Descriptor for a qualification at Honours (H) level: Bachelors degree with Honours
Honours degrees are awarded to students who have demonstrated:

i) a systematic understanding of key aspects of their field of study, including acquisition of coherent and detailed knowledge, at least some of which is at or informed by, the forefront of defined aspects of a discipline;

ii) an ability to deploy accurately established techniques of analysis and enquiry within a discipline;

iii) conceptual understanding that enables the student:

- *to devise and sustain arguments, and/or to solve problems, using ideas andtechniques, some of which are at the forefront of a discipline; and*
- *to describe and comment upon particular aspects of current research, orequivalent advanced scholarship, in the discipline;*

iv) an appreciation of the uncertainty, ambiguity and limits of knowledge;

v) the ability to manage their own learning, and to make use of scholarly reviews and primary sources (e.g. refereed research articles and/or original materials appropriate to the discipline).

Typically, holders of the qualification will be able to:

a) apply the methods and techniques that they have learned to review, consolidate, extend and apply their knowledge and understanding, and to initiate and carry out projects;

b) critically evaluate arguments, assumptions, abstract concepts and data (that may be incomplete), to make judgements, and to frame appropriate questions to achieve a solution - or identify a range of solutions - to a problem;

c) communicate information, ideas, problems, and solutions to both specialist and non-specialist audiences;

and will have:

d) qualities and transferable skills necessary for employment requiring:

- *the exercise of initiative and personal responsibility;*

[2] http://www.tuning.unideusto.org/tuningeu/index.php?option=content&task=view&id=173

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- *decision-making in complex and unpredictable contexts; and*
- *the learning ability needed to undertake appropriate further training of a professional or equivalent nature.*

Quite similar statements can be found in other parts of the world, for example, the Australian Qualifications Framework while in Europe in the summer of 2000, a group of universities started a pilot project called "Tuning educational structures in Europe". Subsequently they asked the European University Association (EUA) to help widen the group of participants and they have now received support from the European Commission under the Socrates-Tempus programme.

The main aim of the project is to contribute to the elaboration of a framework of comparable and compatible qualifications in each of the (potential) signatory countries of the Bologna process. The Bologna process is concerned with the creation of European Higher Education space that covers most of Europe extending far beyond the borders of the EU.

Tuning distinguishes three types of generic competences:

- Instrumental competences: cognitive abilities, methodological abilities, technological abilities and linguistic abilities;
- Interpersonal competences: individual abilities like social skills (social interaction and co-operation);
- Systemic competences: abilities and skills concerning whole systems (combination of understanding, sensibility and knowledge; prior acquisition of instrumental and interpersonal competences required).

While the specification of desired competences is generally helpful there is a danger that the need to adhere to them might restrict flexibility and, perhaps more importantly, the ability to change and develop. Most authors of guidelines state that they should not be regarded as a set of precise regulations that must be followed to the latter. The words of the Tuning website are reasonably typical.

"In Tuning competences are described as reference points for curriculum design and evaluation, not as straightjackets. They allow flexibility and autonomy in the construction of curricula. At the same time, they provide a common language for describing what curricula are aiming at."

The generic competences listed on the Tuning website are

Generic Competences

1 Capacity for analysis and synthesis
2 Capacity for applying knowledge in practice
3 Planning and time management
4 Basic general knowledge in the field of study
5 Grounding in basic knowledge of the profession in practice
6 Oral and written communication in your native language
7 Knowledge of a second language
8 Elementary computing skills
9 Research skills
10 Capacity to learn

11 Information management skills (ability to retrieve and analyse information from different sources)
12 Critical and self-critical abilities
13 Capacity to adapt to new situations
14 Capacity for generating new ideas (creativity)
15 Problem solving
16 Decision-making
17 Teamwork
18 Interpersonal skills
19 Leadership
20 Ability to work in an interdisciplinary team
21 Ability to communicate with non-experts (in the field)
22 Appreciation of diversity and multiculturality
23 Ability to work in an international context
24 Understanding of cultures and customs of other countries
25 Ability to work autonomously
26 Project design and management
27 Initiative and entrepreneurial spirit
28 Ethical commitment
29 Concern for quality
30 Will to succeed

Can Generic Competences provide the basis for Cross-disciplinary Benchmarks?

There does some a possibility of comparing a graduate in physics with a graduate in philosophy in terms of the extent to which they can demonstrate the general competences that the relevant authorities state should apply to all disciplines, subject to the caveat about not being a straight jacket.

But to proceed in this direction means that we need to think about the assessment of students' competences. The received wisdom within the academic community in many countries is that generic competences should not be taught or assessed separately from the subject specific competences. Unless that attitude is changed it is difficult to see how the physics philosophy generic competence comparison can be made.

I do wonder whether there may be a case for reconsidering the received wisdom and assessing students' ability in at least some of the more important generic competences separately.

In higher education systems where there is a general education tradition, such as the United States, this to already happens but to a limited extent but this would be restricted to the achievements at lower level courses and would not indicate the extent to which a student had developed, say, their communication skills over the whole of his or her programme.

Some recent developments - that might be relevant

The idea that the whole of a student's achievements could be summarised by a single measure whether it be a 2.1 degree or a 3.4 grade point average was always a pretty silly idea which did not mean that many higher education systems do not follow that practice. But things are changing. Europe is introducing the Diploma Supplement which is to be issued to each student and will include the mark or grade obtained for each unit or module studied. However, for the reasons given above this will not be of great assistance in comparing the generic performance of graduates of different disciplines.

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Across the Atlantic a potentially far more significant and possibly far more disturbing development is taking place. In September 2006 a report, commissioned by Margaret Spellings, the Secretary for Education was published. The report "A Test for Leadership" was on the future of US Higher Education.[3]

One of its key findings was that employers repeatedly report that many new graduates are ill prepared for work and lack the critical thinking, writing and problem-solving skills that is needed in the workplace. While one of its recommendations was that Higher Education Institutions should measure student learning by using quality assessment data from instruments such as the Collegiate Learning Assessment, which measures the growth of student learning taking place in colleges, and the Measure of Academic Proficiency and Progress, which is designed to assess general education outcomes for undergraduates in order to improve the quality of instruction and learning.

In other words, externally produced standardised forms of assessment should be used which are primarily intended to allow comparisons to be made between institutions, but could also be used as the bases for comparing the success of different disciplines in terms of the achievements of in terms of general education outcomes or indeed generic competences.

And 12 months later it is reported in the Chronicle of Higher Education (28.09.07) that "Hundreds of US colleges are using standardized student-achievement tests, allowing comparisons between institutions, while investigating options for creating more such tests."

So perhaps the world is changing.

Summary

It is difficult to see using the conventional academic norms and following the received wisdom of the academe how it would be possible to arrive at an effective set of cross-disciplinary benchmarks. External influences may change those norms and challenge the wisdom and there are some indications that this might just be starting to happen.

[3] http://www.ed.gov/about/bdscomm/list/hiedfuture/index.html.

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Quality Accreditation Systems: National Experiences: The Australian Universities Quality Agency

Dorte Kristoffersen, Australia
Audit Director of the Australian Universities Quality Agency (AUQA)

The Australian Universities Quality Agency (AUQA) is an independent, not-for-profit national agency that will promote, audit, and report on quality assurance in Australian higher education.

AUQA was formally established by the Ministerial Council on Education, Training and Youth Affairs (MCEETYA) in March 2000. It operates independently of governments and the higher education sector under the direction of a Board of Directors. AUQA is owned by and receives core, operational funding from the Commonwealth, State and Territory Ministers for higher education who are members of MCEETYA.

AUQA's Mission

AUQA is the principal national quality assurance agency in higher education with the responsibility of providing public assurance of the quality of Australia's universities and other institutions of higher education, and assisting in enhancing the academic quality of these institutions.

AUQA's Objectives

AUQA is established to be the principal national quality assurance agency in higher education, with responsibility for quality audits of higher education institutions and accreditation authorities, reporting on performance and outcomes, assisting in quality enhancement, advising on quality assurance; and liaising internationally with quality agencies in other jurisdictions, for the benefit of Australian higher education.

Specifically, the objectives of AUQA are as follows:

1. Arrange and manage a system of periodic audits of:
   - o the quality of the academic activities, including attainment of standards of performance and outcomes of Australian universities and other higher education institutions;
   - o the quality assurance arrangements intended to maintain and elevate that quality;
   - o compliance with criteria set out in the National Protocols for Higher Education Approval Processes;

   and monitor, review, analyse and provide public reports on the quality of outcomes in Australian universities and higher education institutions.
2. Arrange and manage a system of periodic audits of the quality assurance processes, procedures, and outcomes of State, Territory and Commonwealth higher education accreditation authorities including their impact on the quality of higher education programs; and monitor, review, analyse and report on the outcomes of those audits.
3. Publicly report periodically on matters relating to quality assurance, including the relative standards and outcomes of the Australian higher education system and its institutions, its processes and its

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international standing, and the impact of the National Protocols for Higher Education Approval Processes on Australian Higher Education, using information available to AUQA from its audits and other activities carried out under these Objectives, and from other sources.

4. Develop partnerships with other quality agencies in relation to matters directly relating to quality assurance and audit, to facilitate efficient cross-border quality assurance processes and the international transfer of knowledge about those processes.

AUQA's Vision

To consolidate AUQA's position as the leading reference point for quality assurance **in** higher education **in** and **for** Australia. Specifically:

- AUQA's judgements will be widely recognised as objective, accurate and useful, based on its effective procedures, including auditor training and thorough investigation.
- AUQA's work will be recognised by institutions and accrediting agencies as adding value to their activities, through the emphasis on autonomy, diversity and self-review.
- Through AUQA's work, there will be an improvement in public knowledge of the relative academic standards of Australian higher education and an increase in public confidence in Australian higher education.
- Through AUQA's work with other quality assurance agencies, the international quality assurance requirements for Australian higher education institutions will be coherent and rigorous, avoiding duplication and inconsistency.
- AUQA's advice will be sought on quality assurance in higher education, through mechanisms including consulting, training and publications.
- AUQA will be recognised among its international peers as a leading quality assurance agency, collaborating with other agencies and providing leadership by example.

AUQA's Values

External: how we relate to other people and organisations. AUQA will be:

- Rigorous: AUQA carries out all its audits as rigorously and thoroughly as possible.
- Supportive: AUQA recognises institutional autonomy in setting objectives and implementing processes to achieve them, and acts to facilitate and support this.
- Flexible: AUQA operates flexibly, in order to acknowledge and reinforce institutional diversity, and is responsive to institution and agency characteristics and needs.
- Co-operative: AUQA recognises that the achievement of quality in any organisation depends on a commitment to quality within the organisation itself, and so operates as unobtrusively as is consistent with effectiveness and rigour.
- Collaborative: as a quality assurance agency, AUQA works collaboratively with the accrediting agencies (in addition to its audit role with respect to these agencies).
- Transparent: AUQA's audit procedures, and its own quality assurance system, are open to public scrutiny.
- Economical: AUQA operates cost-effectively and keeps as low as possible the demands it places on institutions and agencies.
- Open: AUQA reports publicly and clearly on its findings in relation to institutions, agencies and the sector.

Internal: how we behave as an organisation. Staff are:

- mutually supportive

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- committed to higher education and its quality
- thorough in what we do
- economical in the way we operate
- internationally oriented and aware
- constantly alert for and act on possibilities for improvement.

In summary:

- the Mission says what AUQA is
- the Objectives specify what AUQA does
- the Vision sets out how well to do it
- the Values are how to behave while doing it, and
- the KPIs measure how well we do it.

Audits

Audits of State and Territory higher education accreditation authorities pay particular attention to: recognition and accreditation processes; the consistency of these processes with the National Protocols for Higher Education Approval Processes; and the consistency of their judgements with those made in other States and Territories.

For the first cycle, quality audits of self-accrediting institutions are whole-of-institution audits based on a self-assessment and a site visit. AUQA investigates the extent to which the institutions are achieving their missions and objectives. Audits assess the adequacy of the institution's quality assurance arrangements in the key areas of teaching and learning, research and management, including the institution's overseas activities. They also assess the institution's success in maintaining standards consistent with university education in Australia. AUQA makes use of panels of experts with substantial senior academic and administrative experience in higher education (in Australia and abroad) to undertake the audits. Audits endeavour to minimise the additional workload for universities and AUQA pays particular attention to supporting the diversity of the higher education sector.

Relevant to the operations of both agencies and institutions are the National Protocols for Higher Education Approval Processes which, among other things, set national standards and criteria for the establishment of new universities and the accreditation of higher education courses offered by non self-accrediting institutions.

Action taken in response to audit reports is the responsibility of the governing body of the institution concerned or in the case of State and Territory accreditation authorities, of the relevant Department and Minister. Exceptionally, failure to respond appropriately to reports could lead to funding sanctions by the Commonwealth or regulatory action by the relevant State or Territory Government.

Source: the AUQA website - http://www.auqa.edu.au/aboutauqa/auqainfo/index.shtml.

Quality Accreditation System: National Experiences

Somwang Piriyanuwat, Ph.D
Director of The Office for National Education Standards And Quality Assessment (Public Organization)

Abstract

The1999 National Education Act emphasizes the importance of quality assurance. Chapter 6 of the Act on Education announces for establishment of The Office for National Education Standards and Educational Quality Assessment as a public organization be responsible for external quality assurance (section 49).

The Office for National Education Standards and Educational Quality Assessment (Onesqa) is tasked to develop the criteria and methods for external quality assessment and assessing educational achievements in all Thai schools in order to evaluate the quality of country's educational institutions.

The Office has drawn up its Five-Year Strategic Plan (2006-2010), which will serve as guidelines to enable Onesqa to easily reach its planning goals. The "Amicable Assessment Model" is a key element of Onesqa's assessment programme. The model was specifically tailored to Thais who cherish their strong social traditions and culture. It comprises four aspects, which are : 1) promotion and development; 2) creation of faith in "school doctors"; 3) perseverance in amicable assessment; and 4) providing guidelines and supports.

ONESQA operates and develops education standards and external quality assurance system toward the directions corresponds with the 1999 National Education Act consisted of 3 levels: basic education level, vocational education level, and higher education level. The quality assurance of all education is aimed at through their obligation to receive external assessment at least once in every five years. Quality assessment is an education process for providing the learners, parents, community and society with confidence and assurance of the educational institution's ability to offer services of the quality and standard required. The collective efforts of the state and private sectors will undoubtedly be most beneficial to the development of education quality and enhancement of Thailand's competitiveness in the world community.

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Debate: Quality Accreditation: Graduate vs School Accreditation (Pro)

Professor Grace Tang, Hong Kong
President of Hong Kong Academy of Medicine
Chairman of Management Committee of the Asian Medical Education Association

In undergraduate medical education, quality accreditation has always been achieved through vetting of the medical curriculum by regulatory authorities such as the medical councils at regular intervals. Such accreditation includes the vetting of the documentation of the medical school curriculum and its assessment methods, as well as site visits that will allow the vetting team to meet the medical students and teachers, and to see the environment in which education takes place. All these methods together form the accreditation of the medical school, and in turn, accredit the graduates of the school. The final accreditation in some places is done through the licensure examination that ensures the standard of all those who wish to practise in a particular jurisdiction.

Accreditation of medical schools is a relatively straight forward and easy task, for the curricula and the environment of the place can be easily assessed. A standard can be set for the medical schools to follow. The physical environment such as library or even dormitory can be specified. As to the standard of the medical graduates, assessments can be made on the competencies required, the means to achieve such competencies, and the outcome assessment methods. To further ensure the standard before medical practice is allowed, a licensure examination and a period of internship can achieve this goal. In other words, school accreditation is a collective reflection on the quality of its graduates.

The situation for postgraduate specialist training is similar to that of undergraduate education where there are also defined curricula for each specialty or subspecialty, as well as structured assessment methods.

What is abundantly clear is that undergraduate medical education and postgraduate specialist training only form at most $1/4$ of the time a medical practitioner works, assuming the medical career life being 40 years. For the major part of the medical practice, there is no formal accreditation for most of the practitioners except in a very few jurisdictions.

Accreditation is a means to ensure quality of medical care. After postgraduate training, the practice of each and every medical practitioner is different although the practitioners may be working in the same specialty, or even in the same unit. There are differences in the focus, the priority and the emphasis of the practice. There are also differences in the perceived needs of different medical practitioners and the gaps of knowledge and competence they wish to bridge and update, and hence reflecting on the education they have undertaken, and the learning they wish to further pursue. There are also the differences in their patient profiles that may demand particular emphasis on some form of learning. For example, a doctor focusing on psychosomatic Obstetrics and Gynecology will need to learn more about counseling skills.

It becomes clear that any form of accreditation cannot be generic that applies to all doctors even though they may be practising in the same specialty. For quality assurance, the accreditation must be targeted at the individual graduate, and at the level of work that he/she is doing, aiming at the maintenance of his/her competence. In view of the diversity of postgraduate medical practice, and the Adult Learning theory that "people only learn what they think they need to learn" (for their practice), the accreditation of the graduate has to be multi-faceted and tailored to the individual medical practitioner. The accreditation methods may have to be changed from time to time for this reason. Such a process may be tedious, but unless the regulatory authorities do not wish to accredit the medical graduate for the sake of quality assurance, the task has to be done during the 3-4 decades of practice of these graduates.

Graduate accreditation is essential in the maintenance of the standard of health-care.

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Quality Accreditation - Ethical Aspects

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Need for quality assurance of medical education

The increasing globalisation of the medical profession raises the issue of safeguarding the practice of medicine. Within the framework of the globalisation process and the growth of cross-border education, and driven by pronounced migration of medical doctors, consequences have appeared in the form of commercialisation, privatisation and the new phenomenon of for-profit providers of medical education. Higher education has now become a trade commodity. In reaction, emphasis has arisen on quality assurance issues.

The World Federation for Medical Education (WFME), in a Position Paper[1], argued that Global Standards for Quality Improvement of Medical Education would be an essential tool for quality development of medical education programmes, and also would be used in international recognition of medical schools.

The Trilogy of WFME Standards[2-4] was published in 2003 and endorsed at the WFME 2003 World Conference[5,6]. An international Task Force, established in 2004 by the Strategic Partnership of the World Health Organization (WHO) and the WFME to Improve Medical Education[7], defined the WHO/WFME Guidelines for Accreditation in Basic Medical Education[8]. The Task Force found that organisations such as the WHO or the WFME should not assume an accrediting agency role, and recommended that accreditation should be a national responsibility. However, countries with only one or a few medical schools could use an accrediting agency in a neighbouring country or a regional or sub-regional system.

Quality accreditation

Quality assurance of higher education institutions and programmes is increasingly based on accreditation processes. Systems based on external review have been adopted in more than 70 countries around the world. These vary from country to country and sometimes within countries. Governmental as well as non-governmental agencies are operating. Purposes, functions and methodologies differ; some systems are voluntary, others obligatory. Some systems cover only public institutions, whereas others cover public as well as private institutions. Most countries have only one system for all types of higher education, whereas others base evaluation on a combination of criteria of general higher education and of subject area/profession-specific education. Publication of accreditation outcomes also vary. An additional problem is that most systems cover only national providers without any control of cross-border education providers.

The WHO/WFME Guidelines for Accreditation define a number of essential elements in proper accreditation (table 1).

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Table 1

Elements of proper accreditation
• Authoritative mandate • Independence from governments and providers • Transparency • Predefined general and specific criteria • Use of external review • Procedure using combination of self-evaluation and site visits • Authoritative decision • Publication of report and decision

In 2005, a programme for promotion of accreditation was formulated within the WHO/WFME strategic partnership[11]. (table 2). Essential to this development was the definition of a WFME Advisor function and development of a manual for WFME Advisors[12].

Table 2

WFME package for promotion of accreditation
• National specification of the WFME Global Standards for basic medical education • Assistance in the institutional self-evaluation • External review by WFME Advisors of the institutional self-evaluation report • Site visit to the medical school by a WFME external review team • Formulation of the final evaluation report • Development of an accreditation organisation and accreditation council and procedure for accreditation

The WFME, The Copenhagen-Lund University Centre for International Medical Education (CLUCIME) and the Open University Centre for Education in Medicine (OUCEM) in the UK are now working together on training programmes for advisors and assessors.

Well-established accreditation systems, which combine counselling and guidance with review and control, have proved accreditation to be an effective quality assurance tool. Institutional self-evaluation at regular intervals is of utmost importance, and review of self-evaluation reports and site visits by teams of trained and experienced experts ensure that programmes follow nationally adopted criteria and are consistent with international standards. Using international standards as a template for national criteria guarantees a foundation for international recognition.

Therefore, the policy of WFME is to strengthen development of proper national accreditation systems.

Alternative quality assurance methods

It is unrealistic to expect worldwide accreditation to be established in the foreseeable future, and other mechanisms to ensure international recognition are required. In some countries, accreditation of education is not an accepted concept and other means of quality assurance are used, e.g. comparison of programmes with general regulations, rigorous student selection procedures, entrance examinations, self-evaluation including the use of external examiners without formal accreditation and by national examinations before licensure.

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A new Database on Health Professions Education Institutions

Due to requests from member states, the WHO has decided to develop new *Global Directories of Health Professions Education Institutions* (GDHPEI) with the objective of establishing and strengthening national accreditation. It is the intention to cover educational institutions for all academic health professions, and to increase the amount of information provided about institutions and programmes, including the number of admissions and graduates, attrition rate, ownership, management and funding sources. More important, quality related information will be added, e.g. about accreditation status (operating agency, the criteria used, type of procedure, etc). The database of the Directories will be web-based and regularly updated.

WFME and its network are envisaged to assist the database administrator with information concerning accreditation and alternative types of evaluation and recognition. An agreement was recently signed by the WHO and the University of Copenhagen about taking over responsibility of the administrator function of the Directories.

Advantages of international recognition of medical education programmes are presented in table 3. Suggested aims include: to help students in their choice of institution; to assist academics in applying for jobs; and to provide licensing authorities with information relevant to their registration requirements.

Table 3

Advantages of international recognition
• Beneficial to medical students • Beneficial to medical teachers • Beneficial to medical schools • Beneficial to health care authorities • Safe-guarding the interests of the public

The future Directory for Educational Institutions in Medicine, which will replace the World Directory of Medical Schools[13], should include all medical schools recognised at country level. Available information will be included for each medical school about the institutional background, the medical programme, accreditation/recognition status, and the quality assurance system in use in the country. Information given about each school will vary according to the data achievable and the validity of information as estimated by the administrator of the Directory and WFME.

This plan will provide a process of meta-recognition of medical schools programmes and will stimulate establishment of national accreditation systems, respecting the work already being done by existing reliable accreditation agencies, and thus avoiding unnecessary bureaucracy.

Ethical aspects of accreditation

Before establishing accreditation systems, ethical problems should be analysed. Every system which implies appraisal of quality has important implications and raises questions about values, choice of criteria, allocation of resources, interests of various stakeholders, etc.

Being an essential part of the health care system, education of health professionals must fulfil rigorous requirements to quality, and insufficient systems of quality assurance could have tremendous influence on patient safety.

Accreditation as a means of quality assurance is considered the gold standard but has its limitations (table 4). Costs of administration, funding of travel and accommodation, the time spent preparing and conducting visits

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and producing the reports, and the internal academic and secretarial resources involved in performance of self-evaluation studies can be considerable. Direct costs of a full-fledged accreditation procedure of a medical school programme are estimated at about 20,000 - 30,000 USD. Expenses need to be covered by governments or by the institutions, often through membership fees to the organisation responsible for accreditation. It is evident that it can be difficult to mobilise the resources needed for proper accreditation in developing countries with a strained educational system.

Table 4

Limitations of accreditation
• Resources/expenses • Independence of accreditation councils • Objectivity and proficiency of assessors • Outside political pressure • Conflicts of interest • Reliability/selectivity of information

Proper accreditation is concerned with both quality development and control of quality. If accreditation is used solely for quality control purposes, the cost of excluding the few "bad apples" will be exorbitantly high.

Other ethical problems are related to the accreditation procedure. The independence of the accreditation council and the objectivity and proficiency of the assessors may be questioned, especially if it is for international recognition. Judgements may be too positive or too negative compared with the realities of the programme. The system could also be exposed to outside political pressure or individual experts could have conflicts of interests. Reliability of the information provided to the assessors or in the selection of departments at site visits may be biased by a focus on the strengths of the institution and programme and hiding of weaknesses.

Accreditation results which will lead to unfair decisions could have disastrous consequences for individuals and institutions and in smaller societies severe negative effects.

Concluding remarks

WFME will continue its policy on promotion of proper national accreditation and develop a database of relevant accrediting/recognising agencies. This plan also includes an overview of the ethical aspects.

Programmes for advisors and assessors will be developed in collaboration with partners.

WFME will establish a working group to develop principles to be used in evaluation of medical schools and other health professions education institutions and their programmes for the purpose of international recognition, especially when proper accreditation is not feasible.

Finally, the WFME will continue its activity to establish new Global Directories of Health Professions Education Institutions (GDHPEI). By providing a process of meta-recognition of medical schools programmes ("accrediting the accreditors"), an important component will be formed in quality assurance of basic medical education.

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Phra Keaw

list of abstracts

Maha Chulalongkorn Building

abstract: short communication

Curriculum planning and implementation

OA003

OUTCOME-BASED APPROACH IN DEVELOPMENT OF A DISASTER MANAGEMENT CURRICULUM FOR HEALTHCARE WORKERS

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Background

The Faculty of Medicine, University of Colombo, Sri Lanka was a major organization which provided voluntary healthcare services during the aftermath of Tsunami. During this attempt the faculty realized the need for preparing the healthcare system for future disasters by enhancing the capacity of healthcare workers. Developing and conducting a disaster management course for healthcare workers was identified as a priority.

Objective

To develop disaster management course that addresses the needs of the community

Method and outcome

Outcome-based approach was used to develop the course. Qualitative and quantitative methods including interviews and questionnaire surveys were used to identify the core competencies and outcomes that healthcare workers need to achieve at the end of the course. The content, teaching learning methods and assessments were aligned with course outcomes. The course consists of nine core modules and an elective research module.

Discussion

Providing training for healthcare workers is an important component of disaster management. Outcome-based approach provides a useful framework to develop such training programmes and ensures that needs of the community are addressed.

OA005

WEB-BASED SURVEY OF 31 CORE CLINICAL SKILLS DURING MEDICAL STUDENTS' CLERKSHIP

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Background

Because each clinical department operates autonomously, medical students engaged in clinical clerkships run the risk of missing critical opportunities to effectively practice the 31 core clinical skills of which they must be knowledgeable and able to perform skillfully.

Purpose

To use web-based student evaluations to identify core clinical skills students perform during their weekly rotation clerkship.

Methods

At the end of every weekly clinical rotation, 124 medical students in 24 different clinical departments completed the web-based student evaluation specifying which of the 31 clinical skills that they encountered during their rotation.

Results

Through 9 sessions of clinical rotations, 602 evaluations (53.94%) were collected and analyzed. The average response rate per week on each of the 31 items varied from 4.0 students (5.98%) in anterior nasal packing to 29.67 students (44.35%) in checking vital signs, which shows possible neglect of certain clinical skills training.

Discussion

The web-based survey enables efficient evaluation on the essential educational objectives in the autonomous multi-departmental clerkship. To provide the optimal practice of core clinical skills to students, interdepartmental coordination is necessary.

OA006

MULTIPLE EVALUATION APPROACHES IN EVALUATION RESEARCH ON THE RESEARCH PROPOSAL TRAINING PROJECT EVALUATION.

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Objectives

To perform multiple evaluation approaches of applied research in social sciences by using Stufflebeam's CIPP (context, input, process, products) model, Gagne's concept, Michael J. Marquardt's concept, and Reg Revans's action learning.

Materials and Methods

The rating-scale inventories, open-ended questionnaires, observation checklist interviewing form and the self-assessment questionnaires were distributed through 4 groups of populations (documents, 54 trainees, 4 committees and 3 experts). Data were collected on July-September 2005 by participation observation, interviewing and self-assessment.

Results

Analyzing documents and expert's opinion shown that the context (i.e., objectives, policy, construction and content) were appropriated. The project's context conformed with focusing quality policy in 2006, vision and mission of the faculty of medicine, Siriraj Hospital, Mahidol university. Fifty eight and 71.4 percentage of the trainees agreed with the contents of the training about how to create research question and how to write proposal respectively. Furthermore, 67.4% and 69.0% gained more how to create research question and proposal respectively. The process: (i.e., monitoring, supporting, problems/obstacles, action learning, events of instruction toward efficiency). Trainees' communication and their collaboration were at moderate level, however their commitment to write the research questions and proposal was at high level. The majority of project procedures or activities could be implemented according to the plan, However, increase number of cluster facilitators was suggested by the trainees. The majority of Gagne's 9 events of instruction by cognitive information processing were followed. The products showed that the majority of trainees could write about the research questions (i.e., PICO = population, Intervention, comparison and output/outcome) but they could not elicit the characteristics of good research questions. Only fifteen trainees could completely write the articles of research proposal individually but all teams could write their research proposals. There were no correlation between each action learning variable and each product variable (the knowledge of how to write research questions or proposal).

Conclusions

The 3 objectives of this training project were obtained. The context and the input were appropriated. All procedures or activities could be implemented according to the plan. Finally, the majority of trainees assessed them self over their learning processes' output at the high level but their action learning by using Revans ' s concept was not. The suggestions were that after finishing training project should be performed continuingly base on theory driven evaluation (i.e., Chen's theory based evaluation), using mixed methods research and multidimensional evaluation as well as creating quality services inventory of the routine to research project.

Keywords

multiple evaluation approaches/evaluation research.

OA007

LESSONS LEARNED FROM A NOVEL UNDERGRADUATE CURRICULUM IN EVIDENCE - BASED PRACTICE

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Purpose

To implement and evaluate the effect of a new evidence based practice (EBP) curriculum in developing EBP competency for Year-1 and Year-2 undergraduate medical students.

Methods

For the 165 students entering Year 1 we implemented a longitudinal curriculum that spanned all but one Year-1 and Year-2 system blocks. The self contained programme focuses on a video patient consultation relevant to the block system used to identify a relevant clinical problem and a real time search for a relevant journal article. This is followed by a 2-hour small group tutorial session to critically appraise the chosen paper, learn key skills in epidemiology and biostatistics and apply the findings to the clinical case. We used a locally validated EBP questionnaire and four independent knowledge tests to evaluate change in students' knowledge, attitude and practice in a pre post design with 2 additional mid course assessments, post tutorial satisfaction questionnaire and post programme qualitative focus groups of 36 students. Five key outcomes 'attitudes towards EBP', 'personal application and current use of EBP', 'future use of EBP', 'perceived need for EBP as a routine part of learning', and a knowledge test were used to assessed behavioural and learning outcomes.

Results

Complete matched data were available for 106 (64%) students. While the programme led to an overall increase in knowledge scores of 16.7% in Year-1 and 13.3% in Year-2 changes in the KAB were not found. Post intervention focus groups identified 4 key constructs facilitating an understanding the study outcome: "EBP usefulness to learning and future practice", "curriculum structure and organisation", "student understanding and role in learning", and "obstacles to EBP learning".

Conclusions

Despite a paedigogically correct curriculum design we were unable to bring about behavioural change in the students. The post evaluation focus groups have provided instrumental information to guide curriculum restructuring and tutor preparation.

Keywords
education, medical, undergraduate/*methods; evidence-based medicine/ *education; curriculum; students, medical

Student selection

OB001

DETERMINANTS OF THE RELINQUISHMENT FOR STUDY IN THE MEDICAL SCHOOL AMONG STUDENTS IN THAILAND 2007

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Background

The Thai Ministry of Education, with the collaboration of the medical schools around the country, have initiated the new admission programme to medical school aimed to provide more medical professionals to meet the demand of the country healthcare system. However, from the announcement of the admission to medical schools in Thailand for the academic year 2007, as much as twenty percent of the high school students who have passed the admission criteria have relinquished their rights to study.

Objectives

To identify the reasons and factors influencing the decision of the high school students in relinquishing their rights to study in medical schools.

Study design

Cross-sectional descriptive study

Methodology

With collaboration from the Consortium of Thai Medical Schools, we obtained the names and telephone numbers of 260 high school students who passed the admission and had relinquished their rights to study in the medical schools in Thailand in year 2007. The interviewers subsequently contact them by telephone call and explained the objectives and detailsof the project. If they agreed to participate in the study, the telephone interviews were conducted. Interviewers asked the questions through out the questionnaire to identify the main reasons influencing the decision of the students in relinquish- ment to study in medical schools and to ascertain their attitude towards the medical education and the medical profession. Other possible relating factors with relinquishment were also evaluated.

Results

Two hundred and thirty students (88.5%) could be reached for telephone interview. The mean age was 18.2 years and 54.8% were male. The mean cumulative grade point average (GPAX) was 3.86. Regarding to the faculty they chose to study after relinquishment, the top five were faculty of engineering (48.3%) followed by faculty of dentistry (22.6%), faculty of science (7.4%), faculty of pharmacy (6.1%), and faculty of commerce and accounting (4.8%). The main reasons for relinquishment were because they did not want to study medicine (61.7%) and other disciplines were more interested (52.6%) Among 142 students who did not want to study medicine, we found that 37.3% thought that studying medicine was too hard and 26.1% did not like biology.

Teaching and learning methods

OC001

A STUDY ON ASSIGNMENT AND TEST RESULT RELATIONSHIP IN THE FACULTY OF MEDICINE UNIVERSITY OF INDONESIA (FMUI) - INTERNATIONAL CLASS

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Background

Our experience in the first module of the newly adopted problem based approach where the hours for lab activity were greatly reduced showed that the students were not serious in doing their lab activity. Therefore, the overall test result for Histology lab activity test was disappointing. Therefore, the next year we gave them assignments to be completed in the lab activity.

Objective

To know whether assignments caused better test results

Methods

Design:

Non randomized experimental design

Setting:

Department of Histology FMUI

Time:

February 2006 - April 2007

Inclusion criteria:

FMUI International class students enrolled in the module of Cell and Genetics in 2006 and 2007. The sample was divided in two groups, group 2006 (control group) and group 2007 (treatment group).

Treatment: assignments that will be scored by their instructors.
The data collected: scores of assignments (maximum score 100),

and laboratory activity test results (maximum score 130).

Data analysis: We used SPSS 10.0 for windows (independent-samples T test) to compare the means of histology laboratory activity tests of control and treatment group, and we did regression analysis to see the correlation between the assignment scores and the test results of the treatment group.

Results and Discussion

The histology laboratory activity test results of the treatment group (mean: 93.72, SD: 16.67) were significantly higher compared to the control group (mean: 54.83, SD: 29.79). However, there were only weak correlation between assignment scores and test results (R: 0.202).

Conclusion

The test results showed that the assignments given might slightly contribute in the significantly higher results of the treatment group. However, other factors such as the students external and intrinsic factors that were not assessed in this study might play a more significant role.

OC003

EFFECTIVENESS OF MIND MAPS AS A LEARNING TOOL FOR MEDICAL STUDENTS

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Background

Mind maps can be used as self-learning methods that facilitate understanding of difficult concepts. The curriculum of the Faculty of Medicine, University of Colombo, Sri Lanka emphasises the need for self-directed learning and deep learning.

Objective

Evaluate the effectiveness of using mind maps as a self-learning method

Method

Seventy-four new entry medical students were randomly selected and assigned to two equal groups based on their high school performance. (Mind map vs. self-selected study technique). A text on iron deficiency anaemia was selected as self-study material. The mind map group was given a 30-minute lesson in the technique. Both groups were exposed to the study text for a 45-minute period and were requested to answer four structured essay questions based on the study text.

Results

There was no significant difference between the marks of two groups. The average mark of the entire group was 34.4%. Majority (97.1%, N = 34) from the mind map group felt that it is useful to summarize information and 87.9% want to study further about mind mapping.

Discussion

Mind map technique is not superior in newly trained for short-term learning; however majority perceived it as a useful learning tool.

OC005

LEARNING AND TEACHING METHODS FOR EVIDENCE-BASED MEDICINE IN FACULTY OF MEDICINE, PRINCE OF SONGKLA UNIVERSITY, THAILAND

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Background

Evidence-based medicine (EBM) is the integration of best research evidence into clinical expertise and patient preference. EBM is an important tool for life-long learning for medicine and necessary for medical students; therefore, the Faculty of medicine, Prince of Songkla University has launched the learning and teaching methods of EBM. The aims were to encourage the positive attitudes and ability of medical students to EBM practice.

Methods

A cohort study was conducted at the Faculty of Medicine, Prince of Songkla University in 2005-2006. The 4th year medical students were introduced to and practised EBM. They were instructed in each step by a team promoting EBM in clinical practice under the faculty member advisory. The course materials were a book, module and handouts. The students evaluated themselves regarding before and after learning of three steps of EBM including formulating question, searching and critical appraisal using a self-administered questionnaire. Each item was graded on a 5-point rating scale ranging from 1 to 5. The scores of each item between before and after within the same year were analysed by Wilcoxon signrank test and between years were analysed by Wilcoxon ranksum test.

Results

A total of 132 medical students in 2005 and 127 students in 2006 were included. All items on abilities in three steps of EBM were rated significantly improved when compared between before and after by two groups of students ($p < 0.001$). The students in 2006 rated significantly higher scores on ability to electronic search, search term selection and skills of critical appraisal than the students in 2005. Seventy-four faculty members as the EBM advisors have rated attitudespositively on EBM (range 9-25, 19.8±2.7), teaching

and learning EBM (range 10-25, 19.5±2.9), EBM curriculum (range 8-23, 16.3 ±3.2) and EBM book and module (range 10-25, 18.2 ±2.8).

Conclusion

Teaching and learning methods for EBM is useful and practical for undergraduate programme. Not only medical students but also faculty members gained experience and positive attitudes on EBM.

OC006

COMPARISON OF STUDENT PERFORMANCE USING LECTURE AND SMALL GROUP AS TEACHING METHODS IN MEDICAL PHYSICS

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Introduction

Medical Physics links modern medical sciences and advanced technology; hence the teaching method is an outstanding factor in students' application of modern technology in medical fields. This paper describes the academic improvements of applying the Small Groups' Method with respect to routine lectures in a given Medical Physics course.

Objective

The aim of this study was to test Small Groups' Method as an intervention to improve student learning in Medical Physics.

Methods

Improvements of student scores in a Medical Physics course was studied by replacing the routine lecture method by the Small Groups method for the second half of the term after noticing low midterm grades. In this method, lectures were accompanied by small group discussions, frequent pop quizzes, and carefully noted attendance. Data was collected by a valid and reliable MCQ test in midterm and final exams. The data was analyzed by SPSSstatistical package ver.11.

Results

The mean final exam scores (72.08) were significantly ($p<.001$) higher than the midterm scores (45.03); indicating higher student achievement with Small Group Teaching than lecturing alone (60% increase in scores). Also, the number of students who had passed the final exam showed a 50% increase with respect to the midterm.

Conclusion

More interactive methods such as Small Group or lecturing with questions and answers, may improve student academic achievement.

Keywords

medical physics, medical education, small group, student achievement

OC008

A COMPARISON OF PBL (PROBLEM-BASED LEARNING) AND TBL (TEAM-BASED LEARNING) IN MEDICAL STUDENT EDUCATION

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Background

The medical college education has been changed in pedagogy. Two active learning methods, PBL (problem-based learning) and TBL (team-based learning) have their own advantages and disadvantages. The aim of this study was to compare the effectiveness of PBL and TBL by feedback of the students and tutors.

Methods

We educated junior medical students using PBL and TBL in the same semester. The 51 students and 13 tutors were asked to evaluate their classes at the end of each class. The evaluation of students and tutors contained questions related to effectiveness, tutor-to student, student-to-student feedback and satisfaction. The items were scored by 5 digit system and data were analyzed by unpaired t test and Mann-Whitney rank-sum test.

Results

Students evaluated that TBL induced focused preparation prior to classes ($P=0.000$), more active participation of all students ($P=0.000$) and they satisfied with tutors' feedback more ($P=0.000$). Tutors responded that PBL enhanced integration between basic and clinical science ($P=0.01$) and TBL activated the students' questions and discussion like as small group learning in an auditorium setting ($P=0.006$).

Discussion

PBL needed a well-designed module that could integrate multiple subjects and TBL was effective to teach a focused subject with limited human and material resources.

OC009

LEARNING FROM A PILOT RANDOMISED CONTROLLED CROSSOVER TRIAL OF LECTURE AND TUTORIAL VERSUS PROBLEM BASED LEARNING FOR EVIDENCE BASED TEACHING AND LEARNING IN MEDICAL STUDENTS

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Purpose

As part of an ongoing process of teaching and learning quality improvement we undertook a pilot study to compare the

effectiveness of problem based learning (PBL) versus 'usual' teaching for evidence-based practice (EBP). Through 2 2-hour sessions the 'usual' teaching, EBP is integrated in the Year-1 Respiratory and Cardiovascular System Blocks curriculum involving a structured clinical scenario introduced in a whole class session via a video taped patient consultation, guided discussion to identify the presenting clinical problem and a lecture on related epidemiologic and statistical terms followed by a large group (30 students) interactive tutorial where students worked through a guided workbook. In the PBL format students were introduced to a structured clinical scenario through a video play, guided to identify the presenting problem and a relevant clinical paper and then led through the paper appraisal and application of the findings to the clinical case.

Method

A randomized controlled crossover trial design was used. Students were randomly assigned to groups and the groups to 'usual' or PBL teaching. For Respiratory Block groups 1-7 had 'usual' teaching and groups 8-13 had PBL. Group assignments were inverted for the Cardiovascular Block. We used previously validated questionnaires to assess changes in students EBP knowledge, attitude, and behaviour scores (KAB) from baseline to post test and student self-perceived tutorial satisfaction questionnaire (TSQ) after each block.

Results

Significant changes in the KAB factor scores baseline to post test were not found. Significant differences in TSQ scores (1=strongly agree and 5=strongly disagree) were noted for "tutors role in successful learning" between groups in the Respiratory Block ($Mean_{groups\ 1\text{-}7(usual)}$) = 2.57 SD 0.42; $Mean_{groups\ 8\text{-}13\ (PBL)}$ = 2.43 SD 0.44) and within groups for "gain in confidence in learning" for Groups 8-13 ($Mean_{Respiratory\ (PBL)}$) = 2.72 SD 0.527; $Mean_{Cardiovascular\ (usual)}$) = 2.52 SD 0.46). Qualitatively students preferred 'usual' to the PBL teaching in addition expressed concerns about the randomization to different teaching formats.

Conclusion

This pilot study helps to clarify some important teaching and learning issues related to PBL teaching in this subject area guiding the development of the EBP PBL curriculum and demonstrating the need for a longer crossover trial.

OC011

RETENTION OF CHEST COMPRESSION (CC) PERFORMANCE FOR CARDIOPULMONARY RESUSCITATION (CPR) AMONG MEDICAL STUDENTS AFTER TRAINING

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Background and objectives

Chest compression (CC) performance has been emphasized in CPR guideline 2005 to be one of the most important parts to save life with cardiac arrest.

Objectives were to determine retention of CC performance among last-year medical students (externs) after full-course training and determine factors that influence retention of CC performance and area of pitfalls.

Methods

CPR training standard is required for externs at the beginning year. During basic life support (BLS) workshop, externs were recorded for their CC performance at the end of BLS workshop by the use of CPR training manikin. Retention of BLS performance was evaluated by CC scores (CCS).

Results

There were 220 externs had baseline data on chest compression score (CCS1) and 118 for follow-up data (CCS2). CCS during the training course (CCS1) and CCS during the test (CCS2) were 89 (84,94) and 81 (68,89) respectively. CCS2 was significantly lower than CCS1 ($p<0.001$). Percentages of extern who passed 80% decreased from 90.5% to 51.4% ($p<0.001$). Univariate analysis demonstrated that gender, time after training, experience in CPR observation or participation in 1 month is factors that associated with CCS2. Area of errors in CC included compression rate.

Conclusions

CC performance significantly decreases after CPR training.

OC012

THE RELATIONSHIPS BETWEEN GROUP DISCUSSION AND EXAMINATION RESULT IN PROBLEM BASED LEARNING

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Background

Problem-based Learning (PBL) is one method of choice in conducting a competence-based curriculum. Group discussion plays an important role in PBL. In group discussion, students have the opportunity to get more information and meet their learning objectives to improve their knowledge. The aim of this research was to study the correlation between group discussion result and the final score of theoretical test. In addition, this study also searched whether there were any differences between gender in obtaining score both in learning process and theoretical test.

Method

Second-year medical students Faculty of Medicine, University

of Indonesia (n=214, 85 males and 127 females), who taken Cardiovascular module completely were included in this study. Group discussion and summative test score were collected and analyzed using SPSS program version 10 with 95% Confidence Interval of the Difference.

Result and Discussion

Correlation between score obtaining in group discussion and theoretical test was weak with Pearson Correlation = 0.218 at 0.01 level (2-tailed). This data was supported by the fact that the mean of theoretical score was much lower than the mean of group discussion score. There were no significant differences between male and female in obtaining result both group discussion (p=0.42) and theoretical examination (p=0.85).

Conclusion

There was a low correlation between group discussion score and theoretical test score. It can be concluded that the abilities of both male and female students in getting score in group discussion and written exam were the same.

OC013

EFFECTS OF THREE EDUCATIONAL METHODS ON ANXIETY, ACHIEVEMENT AND SATISFACTION OF LEARNING IN NURSING STUDENTS

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Background

Different methods of education have different functions and outcomes. Reports indicated that teacher centered methods like lecture would make the students inactive, limit their critical thinking skills, and decrease the students power of decision making and self assertiveness. On the other hands, student centered methods have better educational outcomes. This study was conducted to assess the effects of three educa-tional methods on anxiety, achievement and satisfaction of learning in nursing students.

Methods

This experimental study was conducted on a class of 40 nursing students. The content of medical surgical nursing II was divided into three parts. The lesson plan (including the detail of titles and learning expectations) was prepared and delivered to the students. The first part was taught using the traditional method. Teacher was delivered lectures while the students were mainly listening and note writing. In second part a student centered method used that was mainly based on self learning by students and question and answers in the class. The main task of teacher was asking questions, listening to the students answers and correcting the answers if it was necessary. The class was divided to the 4-3 members teams. Then 3 references given to them and each group was required to prepare and deliver the educational content in the class. The main task of teacher was leading the students in searching and preparing the content, listening to the students; lectures and summing up the issues. A questionnaire with 2 questions were completed at the beginning and the end of each methods. The 2 questions were assessing the students anxiety and satisfaction by using a visual analog scale. A test was also conducted at the end of each section and the students scores were calculated. T test was used for analyzing the data.

Results

In total, 52.5% of students were female and 47.5% were male. The age of sample was 22.57±2.06 years. mean score of students was 12.47 in first method, 14.80 in second method and 15.10 in third method. There were significant differences between the mean scores of first and second as well as the first and third method. (p=0.00) but there was not significant difference between the mean scores of second and third method. Mean scores of students satisfaction was 3.35 of first method, 3.65 of second and 5.10 in third method. The student were more satisfied of the second and third methods (p 0.00). the first method induced the least anxiety ($\bar{\chi}$=1.92 at the beginning and 1.72 at the end) while the second method induced the most anxiety ($\bar{\chi}$=6.20 at the beginning and 5.77 at the end). Third method induced a moderate anxiety ($\bar{\chi}$=4.32 at the beginning and 3.37 at the end). There difference was not significant between the initial and final anxiety in first method, however the mean of anxiety were significantly decreased at the end of the second and third methods ($p \leq 0.05$).

Conclusion: Active involvement of students in teaching-learning activities could improve their learning and achievement. Therefore involving the students in teaching learning activity is suggested. This could increases their-self-confidence, critical thinking abilities and moral of life long learning in students.

Key words: Teaching methods, anxiety, learning, achievement.

OC015

BEHAVIOR AND ATTITUDE TORARDS ACTIVE LEARNING IN PATHOLOGY: IS THERE DIFFERENCE BETWEEN LOW AND HIGH PERFORMING STUDENTS?

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Background

The 'Principle of Pathology' course has implemented the 'active learning' strategy for two years. This research aimed to study the

difference between low and high performing third year students in terms of their learning behavior and attitude towards active learning in the course.

Methods

Questionnaires were distributed to all 232 students. Students with scores below the 27th percentile and above the 73rd percentile were classified as low and high performing groups, respectively. Student classification was based on MCQs and CRQs (describing gross/ microscopic pathology). The responses in the questionnaires were compared between the groups using the chi-square method, Mann-Whitney U test and the unpaired t-test.

Results

The discrepancy between Year 1 GPAX and Year 2 GPAX was statistically significant (p = .000 and .000, respectively) for the MCQs score. There were statistically significant differences in the CRQs score with regard to Year 1 GPAX (p = .000); Year 2 GPAX (p= .000); use of provided English readings for self-study (p = .002); enquiring mind (p = .013); and use of other educational resources in addition to provided laboratory materials (p = .014); agreeing to active learning strategy (p = .033); and time spent on laboratory revision (p = .042).

Discussion and Conclusion

Our research findings are similar to some studies conducted in the USA and the UK. Students with stronger academic background in previous pre-clinical courses were likely to be more successful in the pathology course. Moreover, students with high scores in CRQs seemed to employ more active learning strategy than low performing students. They also tended to be more aware of the significance of this educational strategy. These results should help encourage students to utilize active learning for their undergraduate medical education.

OC017

ADVANTAGES OF VIDEO TRIGGER IN PROBLEM-BASED LEARNING

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Background

Following the successful implementation of student-centred and problem-based learning (PBL) by the Faculty of Medicine of The University of Hong Kong, the Faculty embarked upon a novel project to create video clips of clinical problems to trigger learning at PBL tutorials, instead of using clinical cases presented on paper.

Materials and methods

After students and tutors completed a video PBL session, their responses were measured by a structured questionnaire using a modified Likert scale. A total of 118 students and 13 tutors responded.

Results

The majority of students and tutors thought that using video clips could enhance the students' observational powers and clinical reasoning, and could help them to integrate their learning of clinical examination skills, practical and interpersonal skills, and data interpretation. They found PBL using video clips more interesting and preferred it over PBL using cases presented on paper.

Discussion

It appears that video triggers help to close the gap between PBL on paper and PBL in the ward, because the students' PBL experience is made more realistic from the beginning. Video triggers may also be utilized to provide learning experience in clinical problems which are not widely available for teaching, as part of the virtual "teaching hospital". Acknowledgements: Project funded by a Teaching Development Grant from the University Grants Committee, HKSAR. Administrative support from Ms. Ada Lam.

Educational environment

OD001

PERCEPTIONS OF ACADEMIC ACHIEVERS AND-UNDER-ACHIEVERS REGARDING LEARNING ENVIRONMENT OF MELAKA MANIPAL MEDICAL COLLEGE (MANIPAL CAMPUS), MANIPAL, INDIA, USING THE DREEM INVENTORY

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Background

Learning environment in any medical school is found to be important in determining students' academic success. The present study was undertaken to study the perceptions of academic achievers and under-achievers (clinical phase) of Melaka Manipal Medical College (MMMC) (Manipal campus), India, using the Dundee Ready Education Environment measure (DREEM) Inventory.

Methods

The DREEM Inventory was administered to 108 medical students in the clinical phase of the curriculum. By means of the statistical package SPSS, students' t- test was used for all the comparisons.

Results

The overall DREEM score for the medical school was found to be 114 /200 as perceived by the above sample of students. Data analysis revealed that the overall DREEM score of the academic under-achievers was high (119/200), compared to the academic achievers (112/200). While comparing the gender wise perceptions, the mean score for female students were found to be more both in the academic achiever as well as under-achiever group.

Discussion

The present study reports different perceptions of two groups of students in the same academic environment. The students being foreign, their perceptions could be influenced by the educational background and the living standards in their native country.

OD002

STUDENTS' PERCEPTIONS REGARDING LEARNING ENVIRONMENT IN AN INDIAN DENTAL SCHOOL

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Background: Learning environment in any dental school is found to be important in determining students' academic success.

Aim: The present study was undertaken to study the perceptions of first year and final year dental students regarding the educational environment of College of Dental Sciences (CODS), Manipal, India, using the Dundee Ready Education Environment measure (DREEM) Inventory.

Method: The DREEM Inventory was administered to first year (n=63) and final year (n=63) dental students in (CODS), Manipal, India. Data analysis revealed that the overall DREEM score of the first year dental students was high (116/200), compared to the final year students (114/200). Most of the items showed significant difference between the years of study, except six items.

Conclusion: DREEM was found to be an effective tool for determining the quality of learning environment in our dental school.

Key words: India, dental school, DREEM, educational environment

OD003

FEEDBACK IN MEDICAL SCHOOLS: DO STAFF PRACTICES MATCH STUDENT EXPECTATIONS?

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Introduction

Effective feedback promotes learning by its effect on changing behaviour. It is an essential, but a neglected component of the educational process.

Objectives

To compare the staff practice and perceptions on providing feedback, with the student expectations.

Methods

The study was conducted at the International Medical University, Malaysia. using two separate pre-tested, self administered questionnaires to staff and students. Focus group discussions were held before preparing the questionnaires.

Results

407 students and 51 (40.5%) staff members responded to the questionnaire. With regard to timeliness on feedback both staff and students agreed that depending on the activity it should be immediate or within 2 weeks. There were disparities between the two groups with regard to the frequency and the quality of the feedback. The student expected the content specialist to provide feedback although the staff perceived that it should be done by the course coordinator. 80% of staff respondents requested training in providing meaningful feedback to students.

Discussion

Staff and students agreed that timely feedback given is effective. The staff perceptions on the frequency and quality of feedback provided fell short of student expectations. To bridge this gap it is recommended to provide staff with training on providing feedback.

OD004

RESPONSES OF PRIVATE PEDIATRIC PHYSICIANS AS SUPERVISORS OF CLERKSHIP TRAINEES

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Purpose

To examine how the process of training medica students in private clinics affects the physicians in private clinics who supervise the students.

Methods

A questionnaire was sent to 25 pediatricians who provided private clinical settings for the medical students' clerkships. The physicians answered a variety of questions, including whether the physicians' stress level increased or decreased during the clerkship, whether the physicians were academically inspired by the presence of the medical students, and whether the physicians changed any part of their treatment procedure or business practices as a result of supervising the medical students.

Results

Of the 25 pediatricians, 24 private pediatricians (96%) responded. 5 (20%) physicians answered that the students' participation had an impact on the physicians' treatment procedures and their attitude towards patients. The majority of the physicians reported academic inspiration and minimal physical and emotional stress from supervising medical students.

Discussion

Based on the pediatricians' responses, in addition to the basic educational benefits, the students' participation may also motivate the pediatricians to follow medical procedures in a highly conscientious manner, thereby not only serving as a positive role model to the students, but also improving basic treatment.

Student assessment

OE001

FACTORS RELATED TO NEGATIVE ATTITUDE OF FIRST YEAR MEDICAL STUDENTS OF UNIVERSITY OF INDONESIA TOWARDS COMMUNICATION SKILLS LEARNING

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Background

The Indonesian Core Curriculum of Medical Education (KIPDI-3) has stressed effective communication skills as one of the main competencies of medical doctors. The study aimed to explore the first year medical students of University of Indonesia negative attitudes toward communication skills learning and factors related to it.

Material and methods

A cross-sectional study was done to first year medical students of University of Indonesia using the Indonesian version of Communication Skills Attitude Scale (CSAS) - a 25-items self administered questionnaires. Data collection conducted in March 2007, three months after the students attended their first communication skills learning. Data analysis utilized independent t-test for univariate analysis and linear regression for multivariate analysis.

Results

From 179 students invited to participate, 162 (90.5%) completed the questionnaire. Most were female (59.9%), moslem (65.4%), and come from public high-schools (65.4%). Student's with negative attitudes toward communication skills learning tended to be male ($p=0.036$), think their communication skills not needed improving ($p=0.000$), and rate their own communication skills as poor or average (0.002).

Discussion

The medical student's attitude towards communication skills learning was associated with some of their demographic and education related characteristics. These will have some implications to educational practice especially in communication skills teaching.

Keywords

education, medical, communication, under-graduate, Indonesia

OE002

IMPACT OF STANDARDIZED PATIETS' WORKING TIME ON SCORING OSCEs

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Background and Purpose

OSCEs are used regularly to assess medical students in our college. This study tried to figure out what is the reasonable length of SPs' (Standardized Patient, SP) working time for OSCEs in half a day without affecting the accuracy and objectivity of scoring.

Method

In June 2006, 250 5th seven-year medical students in our college took OSCE after clinical rotations. 31 SPs worked for 1 or 2 or 4 hours continuously while 23 scoring doctors (SDs) worked for every other hour, and they scored the student's performance separately. Questionnaires were delivered to SPs to collect their opinions for the reasonable working time. One-way ANOVA were performed for checklist items' unifor- mity rate and dimensions scores between SPs' and SDs', proportional analyses for SPs' opinions about working time length and Cronbach's α coefficients for the OSCEs' reliability.

Result

Cronbach's α coefficients are more than 0.73. 71% of SPs think they can work for OSCEs continuously half a day or more. No significance p>0.05 is found in above one-way ANOVA.

Conclusion

With their content, volunteer SPs can work for OSCEs 4 hours during half a day. And this can be referred for OSCEs' arrangement.

OE003

EVALUATING SELF, PEER AND TUTOR ASSESSMENTS TO DEVELOP SELF AWARENESS COMPETENCE

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Background

In competence-based medical curriculum, self awareness, self-care and personal development competence have to be mastered by medical graduates. For those reasons, a set of instruments that measure student performance in Problem Based Learning sessions were developed by the faculty at Faculty of Medicine, University of Indonesia (FMUI). This study aims to show the agreement of self-, peer- and tutor- assessment with knowledge-based evaluation.

Method

Second year medical students were asked to participate in assessing themselves and their peer in group discussion sessions. The total rating of self-assessment, peer-assessment and tutor-assessment were calculated and analyzed for difference between assessments using mean comparison test *(T-test)*. The differences between self-, peer- and tutor- assessment scores to the result of knowledge-based evaluations were then analyzed to measure agreements between assessments.

Result

Eighty nine percent of the students (n = 191) obtained complete assessments. Mean comparison tests showed difference between self- and peer-assessments and also between self- and tutor-assessments (p=0.293 and p=0.617). There were no difference between self-, peer- and tutor assessments to knowledge-based assessment (p=0.000, p=0.000 and p=0.000). Differences between each student's self-assessment and knowledge-based evaluation showed closer difference among high ranked students compared to low ranked students.

Discussion

The significant similarity between self-, peer-, and tutor-assessments to the knowledge-based evaluation scores in this study showed that in general students can rely on their self-assessment, as well as their peer and tutors, regardless of the difference between their assessments. Although this study showed that self-assessment can't always accurately confirm the students' level of achievement because the low-ranked students tend to assess themselves much higher than the other students, using self-assessment instrument is important to enables them constantly honest with themselves.

Keywords

self-assessment, self-awareness, competence

OE006

FACTORS INFLUENCING OSCE GRADING REGARDING RATERS, STANDARDIZED PATIENTS AND TESTING ENVIRONMENT

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Background

When using Objective Structured Clinical Examination (OSCE), potential bias from raters, standardized patients or examination setting should be identified.

Methods

Statistical method is used to analyze factors on OSCE obtained in NCKU hospital in 2007. Blueprint of OSCE included 4,4,2,3,3 stations of history taking, communication, physical examination, logic thinking and clinical techniques respectively. Seventy pre-intern medical students participated on 4 different rotation days. Raters used checklist and global rating scale. Scores of station checklist items summed a checklist_sum, while global rating used 4 as excellence to 1 as fail. Seven stations had standardized patients (SP) scoring on 8 items to students too.

Results

There were significant differences among stations as well among raters on either global or checklist rating. The team that participated the last rotation had significantly higher score on 6 stations. Checklist_sum was highly correlated with global score (r= 0.603 to 0.916). Seven stations showed low discriminating power. Stepwise regression selected 8 stations which predicting global score well. However, the first 8 stations selected to predict checklist_sum ranked differently. Scores from SP showed high consistency with scores of raters.

Conclusion

Statistical analysis assists in identifying appropriateness of OSCE stations and impact of influencing factors.

OE007

INTRODUCING EMIs AT CHULALONGKORN MEDICAL SCHOOL: WHAT DID STUDENTS

PERCEIVE?

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Background

The new undergraduate curriculum of the Faculty of Medicine, Chulalongkorn University was implemented in 2003 using 'outcome-based education' as its main educational strategy. The 'Integrated Clinical Sciences' course was designe as a three-credit year course for fourth year students (first year of the clinical phase) in the curriculum. It, therefore, was first taught in 2006.

Student assessment in this course consisted of six examinations. We used one-best answer MCQs (A-type) in every examination and extended-matching items (EMIs; R-type) only in the final examination. The EMIs contributed 16% to the whole student assessment in the course. They covered 16 themes with 2 stems each. There were 8-15 options for each theme.

Methods

As a part of Year 4 curriculum evaluation, 63-item questionnaires were distributed at the end of the academic year to all fourth year students (N = 151). Items asking students' perception of the EMIs, in comparison with the one-best answer MCQs, were included in the questionnaires.

Results

The students' EMIs scores ranged from 25% to 84% with an average score ± s.d. of 57 ± 10%. The difficulty indices of each item were from 0 to 0.98.

63% of the students perceived that EMIs encouraged them to use more analytical thinking. 55% agreed that integrated knowledge was needed to answer EMIs. However, their perceptions about its usefulness, less memorization promoted by the EMIs, and its further use were still indecisive.

Discussion

Students' opinions towards the EMIs were rather positive. The use of EMIs as an assessment instrument should be encouraged to promote integrated learning. Nevertheless, there was room for improvement.

Curriculum/course evaluation

OF001

COMMUNICATION SKILLS IN MEDICINE: PERSPECTIVES OF FUTURE DOCTORS

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Background

Teaching of CS has become an essential part of medical curricula. Our aim was to review this training in Sri Lankan medical schools and obtain student insights on training assessment and practice of CS with a view of using this as a resource in planning future course improvement.

Method

A descriptive cross-sectional study was done using a pre-tested self-administered questionnaire. This was given to final-year students of three medical faculties. An observational study was carried-out on a randomly selected sample of ten final-year students from each faculty.

Results

The results indicated that at the start of a consult 17% greeted the patients, 7.2% introduced themselves and 31.2% obtained permission "always". Introducing themselves, taking permission, explaining the purpose of the interview was "never" done by 13%, 7%, and 11% respectively. Nearly 90% encouraged patients to ask questions and majority are "fairly confident" in handling challenging clinical situations. Ninety-two percent consider it important to learn CS, 50% prefer simulated and standardized patient interviews; 80% prefer clinically-based assessment.

Discussion

The students perceived the need to improve the current CS training. It must be part of the core content in the curriculum. Student feedback is important for fine tuning and improvement of the curriculum.

Post-graduate studies

OG001

THE STUDY OF CAREER CHOICES OF KHON KAEN UNIVERSITY MEDICAL STUDENTS, THAILAND

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Background

In Thailand around 1,300-1,500 medical students have been graduated each year. Most of them continue to be specialists. Some changes their careers to non-medical professionals. This then leads to a high distribution of doctor in the major cities in spites of the lack of general practitioners in the rural areas; especially in Northeast of Thailand.

Objectives

This study is aimed to identify the proportions of career choices amongst the clinical years of medical students and the reasons for making such a career choices.

Research design

A cross-sectional descriptive study was conducted.

Setting

Srinagarind Hospital (faculty of medicine), Khon Kaen Hospital, Sapprasittiprasong Hospital (U-bonratchathani province), Mahasarakam Hospital, Kalasin Hospital, Chaiyaphum Hospital.

Population and sample

A total of 468 clinical year medical students in KKU in 2007 were recruited. The researcher group of 6 people and the students who graduated in the first trimester accountable for 12 people were excluded. So that the study population were 450 people.

Tool and measurement

Self-administered questionnaire contains 3 parts; 1) general information, 2) career choices and their reasons, 3) counseling requirement systems.

Statistical analysis

Descriptive statistics were used for quantitative data in form of percentage and prevalence in the main research questions. Analytical statistics were used in some interesting variables.

Result

Total 450 questionnaires were distributed and 371 copies were returned. The response rate was 82.4%. The result found that the most popular career choices was being a specialist which was accountable for 255 (68.7%; 95%CI: 63.7-73.4%), followed by being a general practitioner 48 (12.9%; 95%CI: 9.8-16.9%), a non-medical professional 26 (7.0%; 95%CI: 4.7-10.2%).The decision making their career choices was mostly based on their personal interests (80.9%; 95%CI: 76.4-84.7%). 59.2% (95%CI: 53.8-64.4%) of respondents planned to work in provincial hospitals, followed by community hospitals 19.5% (95%CI: 15.6-24.2%). Eighty percent (95% CI: 75.5-83.9%) of medical students desired a career counseling program or system.

Conclusion

The most selected career choice of clinical year medical students was to become a specialist. This decision was based on personal interest. The number of medical students who planned to work in provincial hospital was distinguishably greater than those who planned to work in community hospital. An adequate guidance regarding working in community hospital should also be encouraged especially in the last year of training.

Ethical issues

OI001

MEDICAL STUDENT'S CONCERNS ABOUT THE MEDICAL ETHICS TEACHING CONTEXT (QUALITATIVE STUDY)

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Introduction

In medical education, feedback from students is helpful in course and program evaluation. This study explores the opinions of students about ethics teaching context.

Methods

As part of a qualitative study to explore the culture of teaching ethics 120 medical students (4 year of medical school) participate in 4 focus group to ascertain their view and experiences of teaching medical ethics. The data were analyzed by using a grounded approach which resulted in over 100 analytic codes being assigned which were later grouped into in to five main themes. Credibility of data was tested by two colleagues and triangulation the data.

Results

Five main thematic areas were identified from the focus group. A corresponding pattern was found in students' descriptive and key features of ethical context. Students' open-ended feed-back, Support to facilitators for a curriculum reform in medical ethics. The strongest themes to emerge were student's concerns about poor support and lack of confidence in clinical context.

Discussion

The structure and the culture of teaching hospital have little support for medical students and medical ethics. These finding have implications for the some changes and innovation in teaching medical ethics and improve the ethics in clinical context.

Key words

medical ethics, student opinions, clinical teaching context

OI003

DO STUDENTS THINK THEIR TEACHERS' MORALITY IS STILL OK?

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Background

In Thailand, teacher has played an important role model to students for a long time. Teachers in medical studies are especially expected to perform even high morality, comparing with their career counterparts. In this project, teacher's morality has been investigated through the opinion of Medical students on 35

moral items. It is hoped that the result will show if the teachers' morality is still good enough to play a role model, in the student's opinion.

Methods

Third year medical students (2006) were asked to give their opinion on their teachers' morality, using a closed-end questionnaire which consisted of 35 moral items determined to be the most important moral characters, based on Thai culture, for teaching career. Each item was asked for opinion if the student agrees to that character, graded from 1 (the lowest) to 5 (the highest). The final opinion of each item was calculated and shown as percentage of total number of students.

Results

Most students thought their teachers' morality, such as honesty, modesty, responsibility, punctuality, nonpartisanship, paying respect to personal right, etc, were in between high and highest (50% or above). However, there are also a few moral characters receiving the vote less than 50% students (between high and highest). These are 'equality behavior' (45.6%) and 'patience' (44.8%). Apart from that, in these two characters, 41.4% students chose 'fair' level for both which is quite high comparing with other moral characters.

For the overall moral practice, majority of the students (60%) thought it was from 'fair' to 'the best' if more than 50% of their teachers should practice more morality. In addition, when asking if more than 50% of their teachers could be role models, the answers were 63% (grade 4 and 5).

Discussion

It seems medical students agree that their teachers' morality is quite good and still can be their role model. However, when looking at majority of the students who thought it was 'fair' to 'the best' if more than 50% of their teachers have some more moral practice and the 'fair' zone of some moral characters, is it possible that the students wanted to give a kind of important signal to their teachers? Should it be the time for medical teachers to look back and think of their moral behavior, to maintain their role model status in the future?

Others

OK002

FORMULATING STANDARDS OF COMPETENCE FOR MEDICAL DOCTOR: INDONESIAN'S EXPERIENCE

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Background

The enactment of Law No.29/2004 endorsed the establishment of Indonesian Medical Council (IMC) who contributes in the regulation of medical education and medicalpractice. This Law authorized IMC to approve Standards of Competence for Medical Doctor. A working Committee was established in October 2005

Methods

Under lack of valid and reliable data, the method was based on concensus and experts judgement involving major stakeholders in medical education. Delphi method was applied.

Results

Seven areas of competence were formulated, namely (1) effective communication, (2) clinical skills, (3) foundation of medicine, (4) management of health problems, (5) utilization of information technology, (6) self-awareness and self-care, (7) ethics, moral, medicolegal, professionalism and patient safety. These are then broken down into components of competencies and each component are broken down further into learning outcomes. Three lists have been added for attachment, namely List of Health Problems, List of Diseases and List of Clinical Skills.

Discussion

A series of 25 meetings involving major stakeholders (around 150 experts were involved), followed by intense discussion through emails were conducted. The first material for discussions refered to existing standards from Netherlands, USA, Australia and UK. Its validity was tested by the user, i.e. representatives from Ministry of Health.

OK003

MEDICAL PROGRAM ACCREDITATION BEYOND NATIONAL BOUNDARIES

Karin Oldfield
Australian Medical Council

Background

The Australian Medical Council (AMC) assesses and accredits medical schools and medical courses. Accreditation recognises medical courses that produce graduates competent to practise safely and effectively under supervision as interns in Australia and New Zealand, and with an appropriate foundation for lifelong learning and for further training in any branch of medicine.

Method

The AMC has evolved and extended its accreditation process to:

- a regional one with the inclusion of New Zealand in 1991
- an international one, with the decision by the AMC in 2005 to assess plans by AMC-accredited medical schools to deliver their medical course offshore.

Results

As a result of this evolution in process the AMC has faced many challenges, including:

- finding a balance between the limited purpose of AMC accreditation, which relates to preparation for practice in Australia and the benefits of extending the AMC accreditation role
- linking the AMC's assessment processes to other national and international quality assurance frameworks
- establishing the mechanism and criteria for assessing courses conducted outside Australia
- assessing the equivalence of local training and training outside Australia, taking account of differences in clinical training, health care systems, society and culture, and educational processes

Discussion

The focus of this paper is the AMC's experience in evolving its process to include the accreditation of regional and international medical schools, and the challenges it has faced in moving beyond national boundaries.

Conclusion

As its processes evolve and expand, the AMC will continue to position itself to take on new roles in the medical education continuum.

OK004

THE AUSTRALIAN MEDICAL COUNCIL'S EXPERIENCE ALIGNING WITH INTERNATIONAL BENCHMARKS IN QUALITY MANAGEMENT AND ACCREDITATION

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Background

The Australian Medical Council (AMC), an independent national standards body for medical education and training, accredits medical schools and specialist medical programs. The AMC has developed medical education standards based on the World Federation of Medica l Education (WFME) standards and adopted a model of self-assessment in its processes.

Methods

The AMC engages expert teams to assess medical schools and specialist colleges against the standards; and as the body that sets the standards and processes for others, it needs to demonstrate that its processes are of high quality. In its efforts to continually strive to improve its standards and accreditation processes the AMC has undertaken the following initiatives:

- The establishment of Standards Review Working Parties
- The review of all accreditation processes (by external consultant)
- The networking with other national and international professional associations to share and learn from other experiences

Result

As a result of the external review the AMC has developed and implemented a Quality Management System, benchmarking against national and international standards (ISO 9001, ISO 17011 International Standards for Quality Management and Accreditation).

The AMC quality management system has sufficient rigour and flexibility to demonstrate the quality of AMC processes and position itself to take on new roles in the medical education continuum.

Discussion

The focus of this paper is the AMC's experience in benchmarking and maintaining high quality accreditation processes which allow for an expansion of roles and a shift in focus from national, to regional and international accreditation.

Conclusion

Maintenance of the Quality Management System is an ongoing process and benchmarking has now become core business.

Curriculum planning and implementation

PA001

AN EVALUATION OF CURRICULUM OF GRADUATED PROGRAM IN CLINICAL PSYCHOLOGY, DEPARTMENT OF PSYCHIATRY, FACULTY OF MEDICINE, SIRIRAJ HOSPITAL, GRADUATED STUDY, MAHIDOL UNIVERSITY

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Background

The purpose of this research was to evaluated the Master Degree Program in Clinical, Psychology, Department of Psychiatry, Faculty of Medicine, Siriraj Hospital, Graduated Study, Mahidol University.

Methods

CIPP Model was used to evaluate this program. The sample consisted of 44 lecturers (who teached in the education year 2006), 36 current students (who registered in the education year 2006), 56 graduated (who graduated fro 2000-2005), and 56 of the graduated boss (of the graduated from 2000-2005). Data was collected by using questionnaires and an informal interview technique. Content analysis, descriptive statistics and t-test were analyzed.

Results

Research findings in context evaluation indicated that the curriculum objects were clearly stated, practicable, corresponding to social needs and highly concentrated in professional clinical psychology. The curriculum structure was appropriated, corresponding to the students' needs, and they were found to be useful and necessary for career implementation. The instructional and evaluation activities were corresponding to the curriculum objectives.

Input evaluation showed that the students who attended the program have shown that the selection criteria was appropriate. The students' readiness was found to be highly appropriated. The personnel have shown that the working committee and lectures could conduct the course successfully. The educational resources have shown that there were enough resources to serve the teaching and learning process.

However some of these resources such as patients for case study (psychotherapy and psychological testing) were not enough.

With regard to process evaluation, the operation instruction and evaluation process were highly appropriated.

In term of product evaluation, the graduates had both general and specific qualifications as mentioned in the objectives of the curriculum.

Key word

Evaluation, Curriculum, Graduated Program, Clinical Psychology

PA002

EVALUATION OF STUDENT SEMINAR AS A TEACHING- LEARNING TECHNIQUE

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Background

Increasing emphasis is being placed on student centered and integrated curriculum by Medical council of India because of its positive effects on examination scores and student satisfaction. Here we attempt to evaluate 'student seminar' as a Teaching-Learning method.

Method

Ten randomly selected students of II MBBS from a class of 100, presented a faculty guided seminar, on segments of a pre allotted topic in the subject of Pharmacology. All the students answered Pre and post seminar tests, which consisted of 15 MCQs on the topic covered. The Item analysis was done.

Results

Improved post test performance {P(pre test) = 60.33 & P(post test) = 65.86} was observed. Students Seminar was effective in clarifying the basic concepts in the topic. Four of the items which belonged to high difficulty in the pre test were converted into low difficulty items in the post test. However there was no

improvement in the post test performance of two items and on the contrary, poor performance was noticed in the post test for one item.

Conclusion

Student Seminar was found to be an effective method in terms of knowledge gain. Item analysis supports identification of critical areas in a topic thereby providing room for remedial work.

PA003

A NEED ASSESSMENT STUDY OF OCCUPATIONAL HEALTH CURRICULUM FOR THAI MEDICAL STUDENTS

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Background

Occupational health covers physical, mental, social, and spiritual well-beings for workers related to their occupations. Occupational diseases and injuries in Thailand seem to be high; however, physicians do not have enough knowledge and skills about occupational health. Objective of this study was to assess and develop an appropriate occupational health curriculum for Thai medical students.

Method

Methods included an assessment of existing occupational health curriculum in 12 Thai medical schools, questionnaire survey of occupational medicine experts, questionnaire survey of physicians practiced in industries and primary care hospitals in Pathumthani province, and questionnaire survey and public comments of medical education administration, academician, occupational physician, and medical students. There were varieties of occupational health teaching hours and methods in 12 Thai medical schools. Teaching hours ranged from 11-60 hours. Types of teaching were lecture, group discussion, and practicing walkthrough survey. 84% of occupational medicine experts, 55.9% of physicians practiced in industries, and 76.9% of physicians practiced in primary care hospitals were responded to questionnaire.

Result and Discussion

An appropriate occupational health curriculum for Thai medical students was developed from results of questionnaires and public comment. Curriculum included knowledge about occupational health hazards and diseases caused by them, evaluating and controlling risk from hazards, clinical features and investigation of occupational disease, principles of occupational safety, emergency treatment of injury at work, and principles of health promotion, education, and behavioral modification. It included experiences about surveillance of workers at risk of occupational injury and disease and differential diagnosis of work related ill health. It also included competencies about diagnose work related ill health, take a clinical history and examination proficiently, advise on provision of first aid facilities, recognize and reduce exposures to certain physical hazards, differential diagnosis of work related and environmental related disease, perform a risk assessment, and communicate to target groups levels of risk from real or potential hazards.

PA004

EXPERIENCES IN DEVELOPING A NEW CURRICULUM : FROM TEACHER TO STUDENT-CENTER LEARNINGS

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Higher education is facing increasing demands for learning excellence and as a result new method are now expected to have training and induction teaching and learning strategies. In Faculty of Medicine, Hasanuddin University in particular, we developed a new curriculum in which teacher center learnings were changed to student center ones in 2002. Our strategies were came to problem -based learning (PBL) initially as an academic developer. We socialized the new era of learning strategies to all of medical teachers and working with new staff members who wanted to implemented the PBL methods in developing curricula. We began to examine shifting from traditional teaching pedagogies, such as lecture, discussion and evaluation. Their thinking about nature and structure of knowledge, curricula, student position, learning an instructional techniques were changed. We tried to back up the problem- based learning strategies, such as preparing the tutorial, clinical skill lab, and information technology facilities. The man power as a tutor in tutorial process or instructor in clinical skill lab. were trained and prepared. We currently use the problem-based learning as a teaching methods in our faculty, understanding the differences of conventional/traditional teaching methods with the new era of learning strategies.

Keywords

New curricula, problem-based learning, student center learning, Indonesia, Hasanuddin University.

PA005

STUDENT' PERCEPTION TOWARDS THE STUDENT SELECTED COMPONENTS OF PHASE 2 CURRICULUM AT CHULALONGKORN MEDICAL SCHOOL

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Background

The three main educational strategies of the 2002 undergraduate curriculum at Chulalongkorn Medical School are outcome-based education, integration and student-selected components (SSCs). Of the total 236 credits, there are 22 credits in the curriculum allocated for the SSCs, four of which are provided at the end of Phase 2. At the end of 2006 Academic Year, 251 third-year medical students were provided an opportunity to choose their SSCs from 23 courses (411 places) available. This resulted in the ratio of 1:1.64. However, there were only 17 courses which were of students' interest.

Method

A five-page questionnaire was distributed to all third year students (N = 251). There were 7 items in the questionnaires asking about the perception towards the SSCs.

Results

The response rate was 97% (244/251). Only 9% of the respondents did not claim that they were provided the SSCs of their choice. 90% felt that what they had learned or practiced in the courses were similar to what they had first expected. The satisfaction scores of all but one course were more than 8.5/10, with the average of 8.96/10 and the mode of 10/10. The three courses with highest average scores were diagnostic techniques in parasitology (9.92/10), medical molecular biology (9.90/10) and eukaryotic pathogens (9.50/10).

Discussion

The result of this study is very encouraging. Compared to the satisfaction scores of the core courses in Year 3, the SSCs' scores were much higher. However, according to Kirkpatrick's hierarchy of evaluation, satisfaction is only the first of the four levels. It, hence, is essential to evaluate if students have achieved the course outcomes and/or can transfer what they have learned from the SSCs into their next phase of medical education.

PA006

THE DEVELOPMENT OF A NEW MEDICAL CURRICULUM IN LAO PDR

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In 2004, the Faculty of Medical Sciences in Laos in troduced a new undergraduate medical curriculum to improve the health of Lao people. The entire new curriculum is based on outcome objectives, implements innovative pedagogical methods that will make students better clinical solvers. In the preclinical years the basic sciences are integrated into 9 body systems courses; simple clinical vignettes for small group learning are introduced to illustrate its relevance to clinical medicine. The clinical curriculum is based on 102 clinical presentations grouped into similar body systems as in preclinical years. Each clinical presentation has clinical reasoning maps based on history taking, physical examination and available lab tests to guide students in making a diagnosis of the common causes. These form the basis of the content of each learning experience. Small group discussions are based on a written clinical case. The clinical skills teaching occur in the hospitals with real patients and in small groups. The end-of-year examination is an OSCE. Community medicine is taught as a continuous theme. Study guides have been created that include the objectives, course content and test blueprint. A new Learning Resource Center has been developed.

Student selection

PB001

A COMPARATIVE STUDY OF STRUCTURE INTERVIEW AND ACADEMIC EXAMINATION PERFORMANCE

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Background

The admission rate of applicants for rural doctors was not able to meet the target using the academic criteria. In 2004 - 2005, a pilot project for medical school selection was implemented for the application of "collaborative project to increase rural doctor (CPIRD)".

Method

Ten (in 2004) and twenty (in 2005) CPIRD special students (CPS group) were recruited according to school exit examination criteria and structure interview. The applicants were ranked by the interview scores which assessed the personal qualities in critical thinking skill, communication skill, human relationship, ethical cognitive behavior and holistic approach. Their academic achievements during the pre-medical year and pre-clinical years were compared to thirty eight CPIRD students (CP group) who passed the entrance exam criteria as well as structure interview in 2004.

Result and discussion

No significant differences of school accumulated grade point scores (GPAx) and interview scores wereobserved be-

tween CPS and CP groups. However, the results showed the significant lower grade scores in the CPIRD special groups.

Conclusion

According to this study, university academic admission exam must be taking into account in the student selection assessment otherwise medical education tutorials ought to be made available for the CPS group to facilitate their achievement to be future doctors.

Teaching and learning methods

PC001

PHOTOVOICE: A NEW TEACHING METHOD FOR HEALTH PROMOTION

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Introduction

Photovoice is a process by which people can identify, represent, and enhance their community through a specific photographic technique. The goals of photovoice include to: enable people to record and reflect their community's strengths and problems; promote dialogue about important issues through group discussion and photographs; engage policymakers.

Objective

Photovoice was used at the beginning of the health promotion rotation for fourth year medical students. To find out and construct the concept of holistic health, risk behaviors and health promotion of medical students.

Methodology

Medical students worked in small groups. After a small group discussion and literature review the concept was transformed into photographs which were used to initiate a larger group discussion about the concept of holistic health, risk behaviors and health promotion. At the conclusion, medical students reflected on what they had learned.

Results

During the presentation of the photographs and discus-sion, the medical students reflected all dimensions of health. Most risk behaviors were demonstrated in the photographs. The concept of health promotion was showed in the photo- graphs and throughout the discussion. Moreover, the medical students were satisfied with this teaching method.

Conclusion

Photovoice is a useful learner-centered method for teaching medical students the concepts of holistic health, risk behaviors and health promotion.

PC002

COMMUNITY BASED MEDICAL LEARNING IN THE UNDERGRADUATE CURRICULUM IN SRI LANKA

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Introduction

The University of Sri Jayawardenapura, introduced new module system involving problem-based teaching is introduced to the curriculum in 2006. An important component in this new curriculum is Community Based Medical Learning (CBML) in a rural Sri Lanka

Objectives of the study

- To gather student feedback and evaluate on the
- To evaluate the assessment at the end of the programme.

Method

Hambanthota district in the south was identified as a study area. Students were sent to hospitals,Peirperal Units. This was a residential programme.

All students had to fill the log diary and make formal presentations. A evaluation form to given toget their feedback. At the end an assessment in the form of an OSCE conducted.

Results

- 90% of staff and 80% of students mentioned that appointment was relevant for their medical education.
- Majority of students and staff had expressed this district, as study area is very helpful in achieving the objectives in a rural setting.
- 80-100% of staff and 70-80% of students mentioned that duration and time allocated for five disciplines was good.
- 90% staff and 73% of students mentioned that duration and time allocated for was good.
- 42% of the students mentioned that accommodation facilities were fair during the stay.
- 73% of the students mentioned that support and guidance they received from faculty staff were good.

Conclusion

Majority of students were very satisfied with the CBML that it was very relevant to their future carrier. The response from the lecturers was very encouraging.

PC003

TIME MANAGEMENT SKILLS IN FINAL YEAR MEDICAL STUDENT, KHON KAEN UNIVERSITY

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Background

Success in learning medicine needs a great effort. Time management skills including planning in advance, prioritizing work, test preparation and following schedules are said as essential skills for medical students to cope with an overload curriculum and working hour in patient wards. We hypothesized that the high grade point average (GPAs) students during 6 year > 3.00 have time management skills better than students GPAs < 3.00 .

Objective

To explore time management skills among high and low GPAs in final year medical students.

Methods

141 final year medical students in Khon Kaen Medical School were asked by the questionnaires on the graduate day.

Results

The questionnaire return rate was 80.14% (113 in 141). The study showed that female medical students got significance GPAs higher than males (p=0.006). Time spending for exercise, studying in dormitory, planning in advance, prioritizing work, test preparation, and note- taking were not significant difference among high and low GPAs students.

Conclusion

Female medical students had academic performance better than male. Time management skill mostly were not difference between high and low GPAs students. Other factors influencing academic performance need to be explored.

PC004

INTEGRATING PUBLIC HEALTH IN THE CLINICAL SETTING: THE TB CLERKSHIP

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Context and Setting

Integrating public health teaching into the undergraduate medical curriculum was highlighted in the 1993 UK GMC report *Tomorrow's Doctors*, and other similar reviews internationally. This has often proven difficult to achieve in the clinical setting.

Why the innovation was introduced

In 1997 The University of Hong Kong introduced a systems based medical curriculum emphasizing problem-based learning with "Medicine and Society" as one of four core themes throughout its 5 years. The public health components include epidemiology, preventive and population health, related medical sociology and psychology and evidence-based practice. The TB Clerkship provided an opportunity to integrate these in a clinical setting.

What was done

Groups of 10 students receive three 4 hour sessions in hospitals and clinics.

At the bedside students learn about the service, clerk patients with TB and present cases in student-led problem- based tutorials. Issues are identified driving further discussion and learning objectives. Students use a biopsychosocial approach to place the patients and their illness within various contexts including; social determinants of health; epidemiology of TB locally and globally; clinical management and evidence-based practice; risk factors and co-morbidities; illness behavior and stigma; health information systems and health care service delivery.

Evaluation

Evaluation of the Clerkship has shown that students familiar with pre-clinical paper based PBL and the "four themes" apply this approach readily in a clinical setting and cover a wide range of public health issues. The TB Clerkship model appears to be an effective means of integrating public health teaching into the clinical setting.

PC005

PROBLEM-BASED LEARNING ONLINE: AN EXPERIENCE

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Background

Problem-based learning is an excellent contextual learning modality and has worked effectively in small groups. The availability of chat function in many e-learning management systems such as Blackboard or WebCT has provided a solution for online communication where students cannot meet face-to-face. This qualitative study explores students' perceptions of their experiences in using the Group Discussion Board in Blackboard to conduct the brainstorming session of the first PBL session.

Methods

Year 3 Biomedical Science students participated in this pilot study, aimed at evaluating the problems associated with using

online discussion for identifying learning issues. The second PBL session was conducted face-to-face. The case was on breast cancer in the Reproductive Biology system course. Students were assigned according to their PBL groups in the Group Discussion Board and a group moderator nominated. The learning issues were summarised at the end of the 2 hour session.

Results and Discussion

A strong positive note from most students was the availability of immediate online learning resources. This was reflected in the depth of the discussion. All students participated and interacted, removed from the face-to-face environment. There were several difficulties, notably in areas of focus discussion and moderation due mainly to the large number of issues in the trigger, synchronous input and time. This pilot study identifies several factors that impact on an effective PBL online. These include the moderation process, case presentation, time management and the task assessment rubric.

PC007

KNOWLEDGE, SKILLS AND ATTITUDES OF MEDICAL STUDENTS AT THE UNIVERSITY OF HONG KONG IN RELATION TO SMOKING CESSATION

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Background

World wide smoking prevalence in the general population is unacceptably high. Although physician led interventions are effective in reducing smoking prevalence, many physicians do not have smoking cessation counselling skills.

Objective

To assess the effectiveness as measured by change in knowledge, attitude and skills of the Year-4 MBBS multidisciplinary block smoking cessation counselling programme.

Methods

A pre and post- smoking cessation counselling pro-gramme questionnaire survey was conducted. We used unmatched univariate and multivariate analysis to assess changes in knowledge, skills and attitudes.

Results

Completed pre- and post- responses were obtained from 130 (91.5%) and 134 (94%) of the students respectively. At baseline, the mean age was 23.6 and 62% were male. 97% of students had never smoked. Significantly different scores for knowledge ($Mean_{pre}$ 3.56, SD=0.44; $Mean_{post}$=3.69, SD=0.47), attitude ($Mean_{pre}$=2.77, SD=0.78; $Mean_{post}$= 3.94, SD=0.52) and skills ($Mean_{pre}$=3.84, SD=0.71; $Mean_{post}$=4.29, SD=0.57) scores were found pre- and post test respectively.

Conclusion

Students demonstrated significant improvements on their smoking cessation knowledge, skills and attitude. The results of the study will be a useful guide to tutors of medical students and curricula designers. The long term effects of the intervention are unknown and require further study.

PC008

IMPLEMENTATION AND EVALUATION OF PBL-BASED EDUCATION FOR NURSING STUDENTS: A PILOT STUDY

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Background

The purposes of this study were to develop a PBL program for nursing student's education and to evaluate the program after its implementation.

Method and materials

All 40 undergraduate nursing students in the third year of study at nursing and midwifery faculty were randomly assigned to two groups. PBL method was used for one group (n = 20) and other group studied in traditional lecture method (n = 20) over 1 semester. The entire PBL program consisted of six, 3-hours weekly classes and then the results of final exam were compared in two groups. The exam was consisted of 20 multiple answers questions.

Results

The scores were compared in two groups. The mean score was %66 in PBL and %73.4 in lecture group. Mann Whitney test showed no significant difference in final scores. However, the PBL group expressed higher satisfaction (%70) from educational program than traditional education that they experienced before.

Conclusion

The PBL method could be utilized to promote nurses' clinical competencies as well as self-learning abilities. Further research is needed in the implementation strategies of PBL- based continuing education in order to improve its effecti- veness.

PC009

THE PBL IN SURGERY, IS IT POSSIBLE?

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Background

Problem-based learning (PBL) is a well-known learning method and used in many medical schools around the world. It enhances the process of self directed learning skills to search new knowledge of both basic and clinical medical sciences. The faculty of Medicine of Khon Kaen University was established in 1972 with conventional medical curriculum. In 1991, the PBL curriculum was developed especially for 2 years of preclinical students to serve the life long learning educational policy. For the later 3 clinical years, the real patients could stimulate the learning process and clinical skills as the real-life problem cases.

Methods

In department of Surgery, the course syllabus for all clinical years was defined as surgical clerkship. All students mainly gained clinical experiences from the surgical in-patients. The higher medical year, the lesser topics were lectured. We, however, found that some students still have had problems in patient comprehension such as case analysis and discussion. Including to the PBL policy of the faculty for every medical year students and the different preference of individual learning method, we initially developed the problem-stimulated learning programme in surgical course syllabus for the 4th year students in 2007. Peritonitis and traumatic case scenarios, the 2 surgical hard-core topics, were experienced by PBL process and replaced conventional lectures. In addition, obstructive jaundice, gastrointestinal hemorrhage, gut obstruction and acute urinary retention - the 4 common surgical conditions in our school - were developed for teaching ward round experiences without any lecture. As the result of programme change, about a half of lecture sessions were reduced and replaced with self directed learning periods. The students had enough time for self knowledge management. And it supported student-center educational policy. Our study compared the result of the surgical course syllabus change in the aspects of both students and instructors.

Result

In the success of learning, the MCQ assessment were compared between the 4th year medical students in conventional programme (year 2006) and new programme (year 2007). There was unremarkable different between both groups. In learning satisfaction, the conventional group was slightly more satisfied in gaining of knowledge and care from instructors, due to more lecture sessions in this group. On the other hand, the new group was slightly more confident in examination handling especially in case-essay writing and oral examination. In the instructor opinions, they were not familiar with tutor role in case scenario (PBL programme). And it also took many tutors at the same time in small group sessions, which hardly kept themselves off routine surgical services. That was the reason for arrangement only 2 case scenarios in the new programme.

Discussion

We believe the PBL programme could develop in surgical teaching. And we understand the student ability to learn better by one method than others. So our course syllabus is rather mixed-up programme. The further programme development is to support more learning experiences and satisfy both students and instructors.

PC010

TEACHING HEALTH BY LOCAL CULTURE

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Background

For the Chiang Mai medical curriculum, Medical Professional Development is designed in an integrated series of the general concept of health, health promotion, bioethics, and individual, family and community health from year one to year three. According to the definition of health by the WHO, we introduced first year students to Northern culture in order to learn the lifestyles of local people.

Methods

One hundred and eighty nine students were divided into ten groups to study about varied Northern culture such as herbal food ingredients, Northern style of marriage, funerals for different hierarchy, etc. and present their work at the end of the course. Five knowledgeable referees were invited individually to assess the presentation and group reports. The five-item rating scale and an open ended questionnaire were used anonymously for course evaluation.

Results

Among 118 of the 189 (62.43%) responders, 88.1% learned a lot, however only 72.0% could apply their knowledge. Small group activity encouraged their learning process (77.9%) and most of the responders participated (83.8%). The referees provided positive feedback and suggestions (81.2%). Nearly all of them (97.5%) suggested continuation of this activity. Their impressions were the enjoyment of group activity, learning Northern culture and amazing presentations.

Discussion

To cultivate the medical profession among students, they need to learn how people live. Adult learners are self- motivated and they practice by doing, so their learning activity allows them to study and present realistically. As a result, experts are needed to participate in assessments.

PC011

KHON KAEN UNIVERSITY MEDICAL STUDENT PREPARATION IN NATIONAL BOARD LICENSE EXAMINATION STEP I

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Background

In order to become a licensed physician in Thailand, candidates must pass a series of examinations conducted by the Thai Medical Council, including the National Board License Examinations (Steps I and II). Results for 2007 from the Academic Department, Faculty of Medicine, Khon Kaen University (KKU), indicated that the percentage of passed examinees from KKU, and the mean score, has fallen from the previous year (2006). Larsen (vis-à-vis USMLE Step I preparation) suggested that good preparation in classroom, during the pre-examination period and on the examination day significantly affect scores. We, therefore, focused our research on preparation and learning style.

Research design

Cross-sectional descriptive study

Setting

Faculty of Medicine, Khon Kaen Hospital, Sanpasittiprasong Hospital, U-dornthani Hospital, Nhong Kai Hospital

Population and sample

We included 4th - and 5th -year medical students who had participated in examination Step I, excluding the researchers (5 persons and 1 PhD program student), for a total of 303 volunteers.

Tools and measurements

We used a self-administered questionnaire comprising two parts (preparation for examination and learning style).

Statistical analysis

Descriptive statistics (percentage and prevalence) were used for qualitative data while analytical statistics (mean point) were used for the Likert scale data.

Results

A total of 303 questionnaires were distributed and 248 (81.8%) were returned. For both years, 81 (32.7%) medical students realized the importance of preparation 2-4 weeks prior to the exam, while 107 (43.1%) started preparations only 2-4 weeks prior. The most popular method of preparation was reading (237/303, 95.5%) but most students prepared no schedule (186/303, 75.9%). The two dominant dimensions of learning style were visual (200/303, 85.5%) over against verbal (34/303); and holistic (167/303, 71.4%) over against linear (67/303). The other two dimensions were not statistically significant different.

Conclusion: KKU medical students realized the need for exam preparation too late according to the USMLE Step I Preparation Guide. Students prefer visual over listening, and systemic correlation over sequential. KKU students would be well advised to prepare for examinations further in advance. Additionally, the education system should be adapted to students' learning style preference.

PC012

STUDENTS' PERCEPTION OF THE STUDY GUIDE IN RESPIRATORY SYSTEM II COURSE

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Background

'Respiratory System II' is the course in the third year of Chulalongkorn Medical Curriculum. There were various teaching-learning methods employed in this course, including problem-based learning, tutorials, clinico-pathological correlation (CPC), laboratory and lectures. We have, therefore, developed a study guide to assist in the management of students' learning and to provide a focus for student activities in the course.

In 2006, a 23-page study guide was provided to all students. The information included was: course objectives; course timetable; details of the teaching-learning methods; assessment blueprints; recommended textbooks, research articles and websites; and learning materials for the tutorial sessions.

Method

At the end of the course, 56-item questionnaires were distributed to all third year students (N = 252). There were 4 items in the questionnaires asking students' perception towards the study guide.

Results

54% of the respondents considered the advice about teaching, learning and assessment in the study guide useful. 46% stated that they made use of the study guide more than course syllabi provided in other courses. 30% agreed that they read almost or every page of the study guide. Only 12% thought that pictures in the study guide were the waste of space.

Discussion

Study guides are always admired as a tutor sitting 24- hour a day on a student's shoulder; but their usefulness could be diminished in the courses which students' pace of learning are highly-structured. Based on the research findings, the RS II study guide should be further developed in order to make more contribution to students' learning.

PC013

GRADUATE STUDENTS' PERSPECTIVES ON PROBLEM-BASED LEARNING IN THE SOCIAL MEDICINE COURSE

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Background

Problem-based learning approach for medical education has been in use in Western countries for more than 30 years, but its use in China mainland is quite recent, especially in graduate medical education. Purpose: To know the perspectives of graduate medical students for PBL in social medicine course.

Method

In spring 2006, 58 first-year graduate medical students at the Third Military Medical University in P. R. China, selected the social medicine course. The course was revised to use the PBL method and structured in two parts: (1) four lectures complemented by a detailed syllabus; and (2) four case- discussion seminars. At the end of the course, a questionnaire was distributed to students to collect the data about their perspectives toward various aspects of the PBL course.

Results

The questionnaire results indicated that the students support PBL group work as a method of learning. They reported a stronger grasp of social medical principles, enjoyed working with a PBL group. They also reported that the PBL course provided them interesting learning activities.

Conclusion

PBL provided Chinese graduate medical students an academically richer learning experience.

PC014

MEDICAL STUDENTS' OPINIONS RELATED TO RURAL COMMUNITY PROJECTS

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Background

Learning and teaching community medicine consists of conducting a community project. Fifth-year medical students at Buddhachinaraj Hospital, Naresuan University were sent to community hospitals and villages to practice communication skills, community leadership skills and managerial skills.

Aims: This study collected medical students' opinions related to rural community projects.

Method

The 63 medical students were split into 3 groups, each group was sent to 6 community hospitals for 3 weeks. The projects consisted of health promotion, disease prevention, diagnosis and treatment of health problems. Questionnaires were dropped off and picked up at the end of the course. (Jan 2007)

Results

There were 26 males and 37 females, age 21-33 Yrs. The learning and teaching of conduct in a community project met the learning objectives - agree/total 55 /63 (agree 90.5%). They practiced communication skills - agree/total = 62 /63 (agree 98.45%) and practiced leadership skills - agree/total = 59 /63 (agree 93.7%) and managerial skills - agree/total = 58 /63 (agree 92.1%)

Discussion

The fifth year Naresuan University and Buddhachinaraj hospital medical students agree that the learning and teaching of conduct in a community project met the learning objetives in that they practiced communication skills, community leadership skills and managerial skills.

PC015

INDEPENDENT STUDY PATTERNS AMONG MEDICAL STUDENTS AT THE UNIVERSITY OF THE EAST RAMON MAGSAYSAY MEMORIAL MEDICAL CENTER, PHILIPPINES

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Background

One of the important activities that help develop self-learning skills of students exposed to the problem-based learning (PBL) strategy is the independent study period (ISP). However, questions are raised concerning its utilization and efficiency in attaining desired goals.

Methods

A cross-sectional study was undertaken to investigate independent study patterns among first to third year medical students at a school that has adopted the PBL strategy of learning. Variables that represented independent study patterns were measured such as: the students' allocation of study time; resource utilization; search, preparation and reporting phases for PBL tutorials.

Results

The results showed similarity in percent resource utilization across year levels but students generally allotted less than desirable time for self-study. Perceptions and behavior on the phases of PBL tutorial sessions were positive among freshmen but significantly decreased for second and third year students. Perceptions on ISP's general effectiveness were obtained. Gener-

ally, a decreasing trend in perceptions and behavior on all aspects of independent study among older students were noted.

Discussion

The growing exhaustion or increased efficiency of the students, as they advance in the curriculum, were speculated reasons. Future investigations dealing with actual reasons behind these subjects' negative perceptions and behavior are needed as basis for intervention.

PC016

INTEGRATING EVIDENCE-BASED MEDICINE (EBM) IN BEDSIDE TEACHING: A PILOT STUDY AT KHON KAEN HOSPITAL

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Background

EBM has undergone a revolution over the last 10 years. Teaching at the bedside is of thought to be applicable to any situation where the teaching occurs in the presence of the patient. This study aims to explore the undergraduate students' understanding and attitudes towards the EBM integrated bedside teaching.

Methods

This is a before-after comparison study. Twenty four 5th year medical students rotated in paediatric department, Khon Kaen Hospital during November-December 2006 were recruited. EBM integrated bedside teaching was conducted in 4 sessions. Principle of EBM practice was taught and done promptly regarding patients' problems. Their attitudes and understanding of EBM were assessed using semi-structured questionnaire.

Results

The concept of EBM was clearer for them after teaching. They tended to search via generic search engine and more specific after teaching. Critical appraisal was their weakest skill. They also reported that the EBM practice is needed and important for doctors, and they required more training.

Discussion

The knowledge and skills needed for critical appraisal and EBM have not been covered in undergraduate until recently. These education needs are often met through postgraduate journal club and workshops which might not apt to the undergraduate learning. EBM integrated bedside teaching might be of an alternative.

PC017

TEACHING ART IN HEALTH PROMOTION

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Background

Health Promotion (HP) is encouraged in the Chiang Mai Medical Curriculum. Painting was introduced in 2nd year HP class to allow the medical students to practice and learn about art for health.

Methods

The medical students choose to be in any group of four different kinds of painting, that are acrylic color, water color, lead pencil drawing and crayon & oil pastel drawing. After a brief lecture about promoting health by painting and basic principle of painting by staff from "art for health" club in the hospital, the students paint their own pictures under supervision of staff. All their work was displayed for one week at the ground hall. The questionnaire, designed in 5-item rating scale and open ended questions, was administered anonymously at the end of the course.

Results

Among 92 of the188 (48.9%) responders, 70.6% thought painting activity cause them relaxed. Mostly (83.7%) agree the high competency of the staff. Only 58.6% realized that art related to their health. However, majority (69.5%) strongly advise to continue this activity.

Discussion

According to WHO, HP is the process of enabling people so we would like our students to have direct experiences of art enjoyment. Although painting is an enjoyable activity, not every student likes it. The thoughtful activity to make them value art is concerned. The clear activity outline and more choices of arts were suggested.

PC018

COMPARISON OF 25 AND 27 GAUGE NEEDLE IN SPINAL ANESTHESIA LEARNING CURVE FOR ANESTHESIA RESIDENCY TRAINING

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Background and rationale

Size of spinal needle may be factor which influences the success rate of spinal anesthesia.

Objective

To compare learning curves of using 25G and 27G quincke spinal needle for spinal anesthesia.

Setting

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Design

Prospective randomized control trial.

Method

Ten new first year anesthesia residents were randomized to 2 groups : Group I (n=5) use 25G Quincke spinal needle, Group II (n=5) use 27G Quincke spinal needle to perform 200 consecutive cases of spinal anesthesia. Number of success and failure was recorded by individual resident anonymously. The learning curves of plotted by cumulative sum of success rate revealed an initial rapid improvement of success during the first 20 cases in both groups. The overall success rate of group I was 84% (95 CI, 66.5-100) and group II was 87% (95% CI, 61.5-100); p=0.89. The widest difference between the 2 learning curves at 20 attempts intervals was at the twentieth attempts with a success rate of 76.0% VS 65.0% in group I and group II respectively; p=0.54.

Conclusion

The learning curves of spinal anesthesia using 25G and 27G Quincke spinal needle showed rapid improvement of success rate at the first 20 spinal block and high overall success rate with no significant difference between the groups.

Keywords

Anesthesia, Spinal anesthesia, Learning curve, Training, Needle size

PC019

THE USE OF LOG BOOKS AS A MODEL FOR EVALUATION OF CLINICAL EDUCATION OF FUNDAMENTALS OF NURSING

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Background

Ideal clinical education, undoubtedly, plays a very important role in the development of individual and professional capabilities and clinical skills as well. A log book is a daily report which help the trainees to record their performance every week, for their future revision whenever needed.. The research project is a quasi experimental study designed to compare the efficiency of the common method of teaching and the use of log book and its effect on the learning rate.

Materials and method

Seventy 3rd year nursing students in the surgical and clinical ward of a teaching hospital were randomly divided into two groups. The first group used log book where as the other learned through the common teaching method. Both the group followed a similar pre and post test examination. Having finished the training period, the scores were analyzed by using SPSS program.

Results

The findings indicate that 10 % of the subjects were male, 90% female and the majority were non-native (84.5%). There was no significant difference between the pre test Score of the two groups , But there was a significant (P>0.05) difference between 2 groups considering post test score. In log book groups there is significant difference among pre and post test score. Difference between the demographic features of the pre and post-test scores was not significant

Conclusion

Since log books can effectively lead the trainees to achieve their desirable goals of learning, it facilitate learning during training period.

Keywords

log book, clinical education, evaluation, trainee

Educational environment

PD001

LIVED CLINICAL LEARNING EXPERIENCES OF MEDICAL STUDENTS: A QUALITATIVE APPROACH

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Introduction

Medicine is an action based principle. Clinical learning has an important role in development of medical skills. For this reason medical students must to learn how to work in clinical setting as a professional person. There are many studies about clinical

setting and its problems, but clinical learning experiences of medical students haven't studied as a whole.

Purpose

To assess, describe and interpret medical students perception about clinical learning.

Method

Phenomenological approach was used to conduct this study. One focus group was convened with 10 students for data gathering. Contemporaneous notes were taken and the discussion were tape-recorded and later transcribed verbatim. Transcriptions were analyzed by using the Van Manen procedures.

Results

Data from the focus group developed into 11 themes: nature of clinical learning, not belonging to medical team, curriculum anxiety, communication between learner and teacher, different context and resource of clinical learning, putting potential abilities into action, discovery of self in clinical setting, conflict between work and learning, dependency and disoriented of clinical learning future.

Findings showed that clinical learning move students toward professionalism in medicine.

Conclusion

Results show that clinical learning is the basic element of medical education, and include many parts and dimensions. By putting account and organizing these factors, medical faculties can promote quality assurance in medical education.

Keywords

clinical learning, phenomenology, clinical setting.

PD002

A STRUCTURAL EQUATION MODEL OF EDUCATIONAL ACHIEVEMENT, EMOTIONAL QUOTIENT AND ACCREDITATION PART I EXAMINATION OF 3RD YEAR MEDICAL OF UNDERGRADUATE STUDENTS, FACULTY OF MEDICINE, SIRIRAJ HOSPITAL, MAHIDOL UNIVERSITY

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Background

The research aimed to study the structural model, the causal relationship and develop the structural equation model of Educational Achievement, Emotional Quotient and Accreditation Part I Examination of 3rd year Medical. The data consisted of 20 observed variables and 8 latent variables.

Methods

The data were analysis by descriptive statistic, t-test, Pearson's product moment correlation, multiple regression analysis, confirmatory factor analysis and structural equation modeling analysis.

Results

Undergraduate students, Faculty of Medicine, Siriraj Hospital have Accreditation Part I Examination of 3rd year Medical score between 43-83% ($n = 233$, $\chi = 67.08$, $S.D. = 7.78$).

Female students have more average Educational Achievement score than male students with statistically significant at 0.05. All 4 observed variables of Educational Achievement and Social Responsibility observedvariable of Emotional Quotient had positive relationship related with Accreditation Part I Examination of 3rd year Medical and statistically significant at 0.01.All 19 observed variables of Educational Achievement and Emotional Quotient accounted for 72% of variance in Accreditation Part I Examination of 3rd year Medical. The structural equation model of Educational Achievement was fit to the empirical data with $\chi 2 = 0.00$, $df = 0.00$, $p = 1.00$, $RMSEA = 0.00$. The structural equation model of Emotional Quotient was fit to the empirical data with statistically significant at 0.01.

Student assessment

PE001

THE EFFECT OF ACADEMIC EXAMINATION STRESS ON THE IMMUNITY SYSTEM IN MEDICAL STUDENTS

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Introduction

It is known that stress has determining effect on immune response. Combined chemical, physical and psychological stress are suggested as exacerbating the initiation or duration of illness and immune circuitry as a result the researchers decided to evaluate the effect of academic examination stress on immune system.

Patients and Method

Thirty-five university medical students participated in this study. The mean age of the students were 21 years. serum of blood was sampled before and after an academic examination. At the same time students completed the Spill Berger State Anxiety questioner .The researchers investigated Immunoglobulin, Cortisol, C-reactive protein and cytokine concentration changes on medical students.

Results

The results showed that academic examination stress induced decreased in IL-6,the differences were not statistically significant. The level of IgE secretion showed significant increase during the examination period. The mean cortisol level before the test was significantly lower in comparison to that of after the test.

Conclusion

Academic examination can have an important influences the immune different factors of the immune system.

PE002

MEASUREMENT OF KNOWLEDGE, ATTITUDE AND PRACTICE OF MEDICAL INTERNS IN APPROACH TO COMMON CARDINAL SIGN AND SYMPTOMS

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Background

The present study was designed to evaluate knowledge; attitude and practice skill of medical wards interns about 5 common ambulatory disease manifestation (fever, headache, dyspnea, chest pain and abdominal pain).

Methods

This study was performed In internal ward of 3 universities hospitals (shiraz, jahrom and fassa).for each symptom the special check list was developed and was completed by researcher during visiting of patients by interns in emergency wards.

Results

The results revealed that behavior of interns was acceptable by patients to some extent and other is no difference between sex of interns or different university.

About history taking by interns, the maximum score obtained in chest pain approach and minimum grades were related to fever approach. ($P<0.05$)

In contexts of performing physical examination, the highest score were related to chest pain approach and lowest score was about abdominal pain ($P<0.05$).

In context of diagnosis and treatment results were acceptable in all five conditions but about diagnosis of chest pain the score was higher than other symptoms ($P<0.05$).

Disscusion

Over all these results indicate that medical interns have acceptable knowledge, attitude and practice skills to five common disease presentation but better chest pain approach in comparison to other symptoms

PE003

THE FOLLOW UP OF MEDICAL STUDENTS ENTERING THE OVERSEAS ELECTIVE SCHEME

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Background

Foreign Relations, Education Division, has had the responsibility for the Student Exchange Program for almost 22 years since 1985 and 698 medical students were selected to attend this program.

The objective of the research is to study their opinions and development in various aspects after having finished elective program abroad.

Methods

This was a research survey taken from a sample of 70 students who attended program. Data was collected by using e-questionnaire, and was analyzed by descriptive statistics, t-test, and content analysis.

Results

The research findings were as follows:

1. Intension score after having attended the exchange program was higher than the score of realistic at the significant level .05 such as further study for specialty, applied knowledge for professional practices, patient care, medical innovation development or research performance and continuing academic exchange with foreign students.

2. Competency score after having attended this program was higher than before attending at the significant level .05 in various aspects such as medical professional knowledge, procedure skills, new knowledge learning enthusiasm, medical research competency, attitude towards medical profession, communication skills, integrated English skills, adjustment skills, self confidence, ability to propagate Thai culture, foreign cultures understanding, administrative system management, analytical, synthesis, and creative thinking.

PE004

COMPETENCIES OF SIRIRAJ MEDICAL GRADUATES: COMPARISON BETWEEN THE ASSESSMENT OF THE MEDICAL GRADUATE ' S SUPERVISORS AND THE GRADUATES

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Background

Siriraj medical graduate competencies are investigated according to The Medical Council Criteria for Medical Practitioner in the year 2002 by comparing the assessment of the medical graduates' supervisors and the graduates.

Method

2 sets of questionnaires are completed by the graduates, who practice on One Year Clinical Experience Program in 61 provincial hospitals, Ministry of Public Health, and the supervisors. Each graduate's evaluation form is collected from the Medical Council, and their grade report from the Faculty of Medicine. t - test, χ^2 test and content analysis are used to analyze the data.

Results

1. The overall competencies show good level. No significant differences ($p > .05$) between the assessment of 2 groups. Same opinions are shared in strengths and weaknesses, same suggestions made for improvement. No significant difference ($p > .05$) in the overall competencies between Siriraj medical graduates and those from other medical schools.

2. The graduates' overall performance on one year clinical experience program is rated good level by the super-visors. No significant difference correlation ($p > .05$) between the level of performance and achievement in the study program. The overall performance on the program increases significantly ($p < .05$) and is rated good level by the graduates.

Discussion

The two groups mainly show agreement in the above results.

PE005

DOES PREVIOUS IN-TRAINING OSCE EXAM EFFECT SUMMATIVE COMPREHENSIVE OSCE SCORE

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Background

In Faculty of Medicine, Chulalongkorn University, the 6th year Medical students were divided to 8 rotations. At the end of Obstetrics and Gynecology (Ob-Gyn) rotation, they have to do the OSCE exam which changed every rotation. Before they graduated, every student has to pass the compre-hensive OSCE exam for getting the medical license. Some of the in-training Ob-Gyn OSCE stations were used for the comprehensive examination. Thus, some students may experience the same OSCE stations in comprehensive examination.

Objectives

This study questioned whether there were any differences in summative OSCE score between students who did similar in-training Ob-Gyn OSCE stations in comprehensive OSCE exam and students who did not.

Method

In March 2007, we selected the OB-Gyn OSCE stations which were used in comprehensive exam and in-training exam. Score in the comprehensive exam were compared between students who did these stations before and who did not. Statistical analysis was done by paired and unpaired t-test using SPSS version 13.0. Significant difference was defines as P-value < 0.05.

Results

In comprehensive examination 2007, there were 145 students, 3 Ob-Gyn OSCE stations were used: counseling contraception, history taking for abnormal menstruation and demonstrate normal labor. The counseling contraception and history taking for abnormal menstruation were used before in the in-training exam, but the normal labor station was not. Fifty-three students who did the counseling contraception station before has mean score at 8.04 (SD.1.20) compared with 7.74 (SD.1.43) in 93 students who never did this station before. The score in these two groups had no significant difference (P=0.19). Ninety students who did the history taking station before has mean score at 7.61 (SD.1.19) compared with 7.25 (SD.1.11) in 55 students who never did this station. The score in these two groups had no significant difference (P=0.06).

Conclusion

The previous in-training Ob-Gyn OSCE exam did not affect summative comprehensive OSCE score in Ob-Gyn stations. However, mean score of the students who did the same stations in the in-training exam seemed to be higher than the students who did not.

PE006

EFFICACY OF MULTILEVEL GROUPING IN CLINICAL YEAR TEAM-BASED LEARNING

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Background

Team-based learning (TBL) is active learning, which focuses on team performance skill. This study aim to multilevel grouping in medical students. The efficacy is evaluated by group and individual knowledge.

Summary of work

TBL was performed for medical students. Learning objectives were provided to the students before. In class, individual readiness assurance test (IRAT) was performed. Then multilevel grouping, consisted of fourth and fifth year students, were arranged to do group readiness assurance test (GRAT) and application exercise. Individual post-class assurance test (IPAT) were perform at the end.

Summary of results

Ninety medical students were enrolled. Mean score of IRAT, GRAT and IPAT were 9.18, 14.37 and 13.84 from 20, respectively. Both GRAT and IPAT score was improved significantly, $p < 0.001$. GRAT and IPAT score were not statistic significant. Overall IPAT is higher than IRAT 64% whereas 76% in fourth year and 51% in fifth year medical students with statistic significant.

Conclusion

Multilevel grouping in TBL can make an effective outcome. This technique improves both individual knowledge and group outcome.

Take home messages

Multilevel grouping can make an effective outcome in TBL.

PE007

ASSESSING NURSING STUDENT'S STRESSORS TO IMPROVE NURSING EDUCATION

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Background

There is considerable literature concerning stress experienced by health professionals. Many research indicated high levels of stress in their educational process. Money, time and energy have been invested for every individual entered to a nursing program, but rates of attrition have been experienced. Nurse educators need to teach students how to learn and equip them with skills in problem solving and stress management. The purpose of the study was to assess nursing student's stressors.

Method

A focus group design was used to investigate the student's stressors. Focus groups were used to provide greater insight regarding the student's stress. The sample consisted of 120 nursing students selected randomly. They were arranged in 12 groups of 10 students. Initially, the topics developed included 10 open-ended questions that were related to their nursing education.

Research Findings

Content analysis has been done. Six construct emerged from the focus group data. They were personal anxiety, academic stressors, clinical placement stressors, working relationships in the hospital, current feelings about nursing as a profession and status of nursing in society.

Conclusion

In conclusion the findings of the study showed that nursing students are under stress, which was counterproductive to their studies.

PE008

COMPARATIVE ANALYSIS OF THE GENERAL PEDIATRIC EXAMINATION BETWEEN THE TWO GROUPS OF SIXTH YEAR MEDICAL STUDENTS: CAN CONSTRUCTED RESPONSE QUESTION DIFFERENTIATE?

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Introduction

CRQ is the test that can evaluate higher education level, requires more analytical thinking & integrate solving solutions. CRQ was used for evaluating the 6th yr medical students of Ramathibodi (RA) and Maharat Nakonratchasima (PI) hospitals in 2005, The result shows some RA failed to passing CRQ, so the committee between the pediatrics department of RA and PI question whether the difficulty of CRQ or the quality of the knowledge of the students. The committee desired to study for compare analysis of the CRQ exam. between the RA and PI. If both groups reveal the same lowering score, CRQ should be adjusted it's difficulty. Meanwhile if only one group shows lowering score, the teaching program should be modified for improving the weak point of lowering group.

Objectives

To evaluate the results of the CRQ exam. between RA and PI

Methods

Prospective study compared between the result of CRQ exam. between the RA and PI in 2006, evaluate the mean (X), median (M) T-score (TS) and statistic analysis from independent sample t-test

Results

There are 4 groups of the RA(30) and PI(14). The X, M, TS of the both were not significant.

Conclusion

There was not significant of result of CRQ exam. between RA and PI

PE009

A COMPARISON OF PHYSICIAN EXAMINERS AND TRAINED NURSE ANESTHETIST ASSESSORS IN ANESTHESIA OSCE SETTING

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Background

An objective structured clinical examination (OSCE) is a modern type of examination often used in medicine to evaluate medical students' skills. The learner's performance is observed and scored according to a checklist of response or behavioral items. However, due to higher clinical demands or physician's time, it is difficult to recruit physicians as examiners. Taking nonphysicians to act as examiners was considered as an attractive alternative. There is concern that nurse anesthetists have insufficient training to provide valid evaluation of medical student competence.

Objective

To assess competency of trained nurse anesthetists as reliable examiners for an OSCE by comparing with results obtained by physician examiners.

Methods

A cross-sectional study of 5th year medical students undergoing OSCE during the anesthesiology training in preoperative to postoperative care program rotation. Trained nurse anesthetist assessors simultaneously evaluated medical performance with physician examiners. The examination stations were intubation, spinal block, ventilator setting and patient education. Statistical analyses used were 2-sample t-test, and Pearson's correlation coefficient.

Results

Forty three students participated in this study. There were no significant differences regarding mean scores between physician examiners and trained nurse anesthetist assessors. The correlation between examiner scores range from 0.78 to 0.97 indicating a relatively high level of agreement between examiners for each station. The high correlation and similar mean scores between pairs of examiners suggested that there were few differences between trained nurse anesthetist assessors and physician examiners.

Conclusion

This study demonstrated that trained nurse anesthetist assessors could be a valid alternative to physician examiners for scoring checklists in anesthesia OSCE setting.

PE010

THE NEW ASSESSMENT SYSTEM OF THE YEAR 4 PEDIATRICS ROTATION AT CHULALONGKORN MEDICAL SCHOOL: THE CORRELATIONS OF THE SEVEN INSTRUMENTS

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Background

In order to serve the policy in student assessment in the new undergraduate medical curriculum at Chulalongkorn medical school, the undergraduate committee of the department of pediatrics redesigned the assessment system of the Year 4 pediatrics rotation. The new set of the assessment instruments utilized were: one-best answer MCQs; constructed-response questions (CRQs); OSCEs; and 4 forms of rating scales (3 forms used by ward advisors to assess students' medical records, portfolio's case reports and student performance; and another form used by residents to assess student performance).

Methods

142 students in Year 4/2006 were assessed using the seven instruments described above. The Pearson correlation coefficient was used to assess the relationship between these instruments.

Results

There was a moderately positive correlation only between MCQs and CRQs scores ($r = .725$). Slightly positive correlations were found between student ratings by ward advisors and by residents ($r = .637$); CRQs and OSCE ($r = .536$); CRQs and student ratings by ward advisors ($r = .531$); and MCQs and OSCEs ($r = .510$). The other correlations were less than 5.

Discussion and Conclusion

The results of this study were not different from other researches in western contexts. They show that there were overlapping components (eg, knowledge) assessed by these instruments. However, the evidence from the study was not strong enough for us to recommend the reduction of any instruments used in the course's assessment system.

PE011

THE RELIABILITY OF PEER ASSESSMENT OF PROFESSIONAL BEHAVIOUR: A STUDY AT DEPARTMENT OF PEDIATRICS, CHULALONGKORN MEDICAL SCHOOL

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Background

Peer assessment has been considered an innovative assessment method in medical education. This study was to determine the reliability of peer assessment of professional behaviour at the Department of Pediatrics, the Faculty of Medicine, Chulalongkorn University.

Method

Sixteen groups of clinical (Year 4 and 5) students rotating at department of pediatrics participated in this study with 9-10 students each. At the end of the rotation, they were asked to rate other group members' professional behaviour using 5-point rating scale. Five domains to be assessed were: punctuality, responsibility, honesty, interaction with patients, and teamwork. The scores obtained were analysed using the G-String II, version 3.1.1 in order to determine the G-coefficients.

Results

The G-coefficients obtained ranged from .579 to .962 with an average of .812. Of the sixteen groups, ten had the coefficients of more than .80 with only two having the coefficients of less than .70. Focusing on the variances attributable to each facet, 11 groups had the variances attributable to 'the students who were assessed' more than to 'the assessors'.

Discussion and Conclusion

The reliability coefficients observed from this study were surprisingly high. It would be very interesting to see the implementation of peer assessment into the curriculum. However, there are other factors influencing the quality of peer assessment, which are relationships, stakes and equivalence. These factors should be carefully scrutinized in order to ensure the utility of the peer assessment as another method to promote authentic assessment in the assessment program of the curriculum.

Curriculum/course evaluation

PF001

CLINICAL RADIOLOGY TEACHING AND LEARNING PROCESS ASSESSMENT AMONG THE FIFTH YEAR MEDICAL STUDENTS, FACULTY OF MEDICINE, KHON KAEN UNIVERSITY

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Background

Clinical radiology is currently the one core-course of medical curriculum and important to the fifth year medical students in order to curative planning and diagnosis. Due to course improving and in line with the medical education quality assurance. Therefore, this study was being held.

Methodology

Descriptive study design was used. Self administered questionnaire using Likert scale (1-5 score) and quality controlled.

Results

There were 97.00 % response rate. More than half of the study samples GPA were 3.00-4.00 (56.20%) and 43.90% of the samples were achieved GPA 2.00-2.99. The study samples reveal the teaching and learning process evaluation of this course in high level (4.29 ± 0.38). In each part of teaching and learning process, the sample also had shown high level. There were statistically significance between the teaching and learning process mean score among the fifth year medical student gender (male-female) in part of instructional media and facility materials ($p<0.05$).

Discussion

This study found high score of Likert scale in each part and all of teaching and learning process assessment of Clinical Radiology Course. Due to improving this course, findings of this study provide the useful information for the Department of Clinical Radiology staffs and related areas.

PF002

PATIENT ENCOUNTER LOGS CAN PROVIDE EVIDENCE OF MEETING SATISFACTORY STANDARDS OF CLINICAL EXPERIENCE AND HELP TO IMPROVE QUALITY OF TEACHING IN A FAMILY MEDICINE CLERKSHIP

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Background

Rather than developing a priori requirements of range of experiences in clerkships, electronic patient encounter logs are a tool that can be used to demonstrate a satisfactory range of patient encounters to meet clerkship objectives

Methods

An evaluation of electronic logs in a Primary Health Care clinic was undertaken. Types of patients seen, range of clinical conditions and student responsibility for care were assessed. An evaluation of the process, content and format of the patient logs was performed using an online survey tool.

Results

Students experienced 1104 patient encounters over 14 weeks. The proportion of female patients was high (65%) with the majority (72%) in the acute care clinic. The students reported managing 35%, assisting in 42% and observing in 23% of encounters. Patient-based learning issues were child health, prenatal and antenatal care, women's health and common problems. These correlated with the Module series provided for self-directed learning in the clerkship and the course objectives. The students indicated that the log record and regular review with teachers were important in helping them identify learning needs and stimulated self-directed learning.

Discussion

As a further improvement in the utility of the content and format of the patient logs for assessing the standard of curriculum delivery, electronic linkage will be developed between student identified learning objectives and curriculum objectives.

PF003

SELF-CONFIDENCE AND ITS RELATED FACTORS OF MEDICAL STUDENTS IN ACCURATE PERFORMANCE OF PHYSICAL EXAMINATION SKILLS

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Background

Among the clinical competencies, the physical examination is an essential skill enabling diagnosis and it is the responsibility of teachers to organize teaching programs that ensure accurate performance of physical examination skills by medical students. An important resource for improving our curriculum regarding such skill development is information gathered directly from medical students.

Objectives

To determine the self-confidence of our medical students in accurate performance of physical examination skills and factors related to their confidence.

Method

We developed a questionnaire concerning: 1) 10 components of the physical examination system; using a 10-point Likerttype scale to indicate how confident (1=least confidence to 10=most confidence); and, 2) factors related to confidence. The 5th- and 6th-year medical students were asked to rate their confidence in accurate performance of physical examinations at the end of classes.

Results

The overall response rate was 71.7 % (218/304), including 97 of 5^{th} -year and 121 of 6^{th} -year medical students.

The mean confidence of general physical examination was 7.8 ± 1.0, and 7.5 ± 1.0 vs. 8.1 ± 1.0, of 5^{th}- and 6^{th}-year, respectively. While focus on systems examinations, students indicated the least confidence performing eye examinations (mean, 6.0 ± 1.4) and the most confidence in gastrointestinal examinations (mean, 7.7 ± 1.2). The 5^{th}-year students had significantly less confidence in general, neurological, cardiovascular, respiratory, gastrointestinal, musculoskeletal, surgical and pediatric examinations than the 6th year, but there was no significant difference in performing ear-nose-throat and eye examinations.

The important factors that affected their confidence were (1) insufficient learning time (23.4%), (2) no standard resources (20.6%), and (3) variation of teachers' examination techniques (19.7%). Only 10% of the students complained about insufficient patient resources.

Conclusion

Our medical students had moderate confidence in performing an accurate physical examination. Confidence increased with years of learning. Insufficient learning time, no standard resources and variation of teachers' techniques were significantly related to the lack of confidence

PF004

THE EVALUATION OF INTEGRATED CURRICULUM BASED ON THE STUDENTS' PERSPECTIVES DURING 6 YEARS OF IMPLEMENTATION

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Background

To become meaningful learning for medical students', the curriculum has to integrate what they are learning in school and skills and knowledge they use in clinic situation. To accommodate these needs, integrated curriculum (IC) has been implemented our medical school since 1999. The purpose of this study was to evaluate the changes in students' perception of IC according to the two implementation periods. This study focused on the students' viewpoint to make an authentic IC.

Methods

Questionnaires were used to evaluate the students' perception of IC. The contents of the questionnaires were appropriateness of time management, coherence of content, teaching-learning methods and evaluation in the IC.

Results

The students of the 2^{nd} period had more positive responses than

those of the 1st period at almost all sub-items. However, the results showed that IC has to be reinforced in the instructors' content coherence, various teaching-learning methods, students' active participation, holistic and integrative assessment, and so on.

Discussion

We have to identify what problems exist and how to proceed of the future medical education. We should consider improving IC as follows: First, to facilitate an IC committee; secondly, to support teaching-learning methods; lastly, to guide students' participation

Key Words

Integrated curriculum, student perception

PF005

THE SURVEY OF EDUCATIONAL STATUS ABOUT DENTISTRY STUDENTS IN 1997-2001 IN RAFSANJAN UNIVERSITY OF MEDICAL SCIENCE

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Background

Evaluation is useful devise for educational activities and its issues is failure on absent. Evaluation is necessary for determination of curriculums needs and every ultimate aim. This survey carried out for assessment of educational status in dentistry student in 5-year duration .

Method

This survey is cross sectional study for measuring demographic characteristics include age, sex, entrance course, quota, diploma average, and other variables for example : semester, basic science issue and total averages on 134 students. The data was collected from faculty archive and analyzed by spss software.

Finding

Results in this survey includes: age mean of subject: 21/9±5/39, 52/2 female, maximum of subjects were from one area quota and minimums from rural(Ashaier) area. diploma average mean was 17/53±2/02 , basic issue score was 142/64±19/26 (from 0 to 180) and total average mean was 15/47±1/17. Between sex and total average was significant difference (P<0/0005) .

Conclusion

Finding showed females more than mail accepted to university in iran , as well as females had more score and average mean. Between basic science score and total average was correlate. This finding useful for improvement and promote curriculum planning and student educational status.

Keyword

dentistry student, educational status, curriculum

PF006

EVALUATION OF COMMUNITY MEDICINE COURSE IN 2006 BY THE FIFTH YEAR MEDICAL STUDENTS, FACULTY OF MEDICINE, KHON KAEN UNIVERSITY

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Rationale

Community Medicine Course provides concept and give the fifth year medical students opportunity to conduct health system research within four weeks. Due to course improving, the study purpose was to assess the students' point of view in 7 parts; (1) objectives achievement, (2) contents, (3) management, (4) lecturers, (5) student-self, (6) evaluation, and (7) instructional media and facility materials.

Methods

The study group was composed 155 of the fifth year medical students who registered in 2006 academic year. A self administered questionnaire was used which reviewed and tested by experts and Cronbach's using 5-point Likert was 0.83.

Results

Response rate was 90.01%. The study sample shows perception in course objectives achievement at high level (mean 4.03 SD 0.54). According to the course evaluation, the highest part was satisfaction in lecturers while the lowest part was satisfaction in management. There was no statistical significant between total course evaluation by gender ($p>0.05$). When controlled other related factors, there was only contents related to course objective achievement perception ($p<0.05$).

Discussion

Findings of this study provide the useful information for the Department of Community Medicine and related areas. Especially, improving in content is recognized strategy of strengthening the student achievement course objectives.

PF007

THE EVALUATION OF ICM USING KIRK PATRICK MODEL AT FACULTY OF MEDICINE, SIRIRAJ HOSPITAL, MAHIDOL UNIVERSITY

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Background

The 4th year of medical school, in - turn students begin their Clinical study. The Faculty of Medicine at Siriraj Hospital prepared students by Introductory to Clinical Medicine course (ICM). ICM acted as preparation course, as it would taught before students proceed to clinical study. The purpose of this research was to evaluate the ICM.

Method

Kirk Patrick Model was used to evaluate this course. The sample was 4th year medical students. Data was collected by questionnaire and interview.

Results

Reaction

This showed that students were satisfied with ICM in the area of topics being taught and instruction method. However, more practical and less the theoretical were suggested.

Learning

This measure in accordance with students examination score both written and practical. The score was above 80% at significant.

Behavior

Data was collected after students actual practice in their wards. The most skills being practiced were approaching patients, writing medical and patient records.

Organization

ICM provided students with concrete back-ground that enable students to run their wards smoothly and able to help patients. The finding revealed that ICM was appropriate and effective course for medical students to begin their clinical study. There were more for ICM to improve in the future.

PF008

EVALUATION OF APPLIED KNOWLEDGE IN USING PARASITOLOGY IN CURING PATIENTS OF MEDICAL STUDENTS AT FACULTY OF MEDICINE SIRIRAJ HOSPITAL, MAHIDOL UNIVERSITY, THAILAND

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Background

The purpose was to evaluate applied knowledge in using Parasitology for patient care, Taking history, suspected patients examination and parasite symptoms diagnosis, including giving patients advice for their safety from parasite infection.

Method

This was survey research. The questionnaires of 5 scale rating were sent to 450 medical supervisors in 33 hospitals. Descriptive statistics and one sample t-test were analyzed.

Results

The research revealed that 59.80 percent of medical supervisors did not implement Parasitology in clinical teaching,while 40.20 percent implemented it. The implemented group showed that the knowledge consisted of taking history, suspected patients examine affected by parasite, ability to self - diagnosis parasite infection, methods of stool examination including stool occult blood and malarial parasite, ability to tell the examination procedures, Bite and sting clusters, advice on parasitological prevention to community and ability to self - searching for parasitilogy score were higher than 3 at significant level .05 (mean > 3, $p < .05$).

The knowledge score which was different 3 in non - significant at .05 ($p < .05$) and needed to be improved in teaching methodology were interpretation of malarial parasite examination result, knowledge in Trichomoniasis, tissue parasitic infections and Ectoparasited (Lice, Scabies) clusters and correctness of parasite curing.

PF009

THE FIRST THREE MONTHS AS THE NEW DOCTORS: WHAT ARE THE PROBLEMS?

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Background

One of the most critical periods in a doctor's life is the first few months they start practicing independently as new doctors after the six-year training in a medical school. This transitional period from a medical student to a new physician could be very stressful. However, the well-prepared graduates should be able to apply what they have learned to the real-life medical practice with less problems and difficulty.

Objective

This study aimed to investigate the problems encountered by the medical graduates from Chulalongkorn Medical School during their first three months as general practitioners.

Method

A questionnaire was distributed to all medical graduates on the week of their graduation ceremony (3 months after commencing their medical practice). Ten categories of problems were listed in the questionnaire. The respondents were asked to describe the problems they had encountered according to these categories. Data from the graduates who worked fulltime as physicians were analysed.

Result

The response rate was 71%. Only 14% of the respondents claimed that they did not face any problems during their first three months. The three categories of which the graduates encountered the problems most are procedures (50%), patient management (49%) and clinical diagnosis (48%). The three categories of which the problems were least come across are legal issues (2%), teamwork (7%) and medical records (16%). There was statistically significant difference between the medical graduates who had their clinical learning at King Chulalongkorn Memorial Hospital and those who had their training at the affiliated hospitals in only one category - procedures (P= .00). The data about the most common diseases the new doctors had encountered during these three months will be presented in the poster.

Discussion and Conclusion

The result from this study can be used as feedback for the curriculum committee - what outcomes medical graduates need improvement and what illnesses should be emphasized in the curriculum so that they will be better prepared for the real world medical practice.

Postgraduate studies

PG001

LEARNING MANUAL SKILLS IN SPINAL ANESTHESIA AND OROTRACHEAL INTUBATION : IS THERE ANY RECOMMENDED NUMBER OF CASES FOR ANESTHESIA RESIDENCY TRAINING PROGRAM?

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Wide variability exists in the number of anesthetic procedures to which anesthesia residents are exposed during their training. The number of attempts at various procedures before a trainee becomes proficient at performing each anesthetic procedure is not known. To determine the learning process of 150 attempts of spinal anesthesia and 100 attempts of orotracheal intubation, the two most frequent anesthetic procedures, we evaluated 9 first-year anesthesia residents according to their rate of success or failure. The learning curves of both procedures revealed an initial rapid improvement of success during the first 20 attempts. Spinal anesthesia was more difficult to learn ($p=0.0002$) but the learning curves of spinal anesthesia and orotracheal intubation reached a nondifferent high success rate of 82 per cent and 88.9 per cent respectively ($p=0.13$). According to this study the institutional recommended number of cases for spinal anesthesia and orotracheal intubation were 112 and 27 cases respectively.

Keyword

Anesthesia, Learning, Sikll, Spinal anesthesia, Orotracheal Intubation, Training

PG002

ACADEMIC ACHIEVEMENT FOR POSTGRADUATE STUDY AFTER SIRIRAJ GRADUATE SCHOLARSHIP GRANTING

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Background

Siriraj Graduate Scholarship is offered as a mean of encouraging excellence in academic performance by postgraduate students. This retrospective study is to evaluate academic achievement and potential for success in postgraduate study under this scholarship program.

Materials and Methods

Participants were students who graduated in the academic year of 2004 to 2006. The scholarship funding began in the academic year 2004. Two indexes of academic performance on postgraduate study as cumulative grade-point average (GPA) and study time were investigated.

Results

Among 197 graduated students, granted students and non-granted students were 67 and 130, respectively. There was no significant difference in GPA obtained between two groups in Year 2004 (3.40 vs. 3.43 ± 0.18, $p = 0.875$) and Year 2005 (3.54 ± 0.18 vs. 3.48 ± 0.23, $p = 0.326$). Clearly, the GPA obtained for granted

students was significantly higher than that for non-granted students in Year 2006 (3.58 ± 0.24 vs. 3.43 ± 0.25, p = 0.005). Similarly, study time for granted students was significantly less than that for non-granted students (2.60 ± 0.67 vs. 3.60 ± 1.17, p = 0.0001).

Discussion

The results indicated that Siriraj Graduate Scholarship has been successfully achieved in encouraging excellence in academic performance by postgraduate students.

Ethical issues

PI001

MORAL AND ETHICS DEVELOPMENT IN MEDICAL PHOTOGRAPHIC II

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Background

The study was to foster morals and ethics through the Holy abidings 4 in Medical Photography II course. The subjects of this study included 20 2nd students, enrolled of Technology in Biomedical and Communication program, Faculty of Medicine, Khon Kaen University.

Methodology

Research tools involved as followings: 1) Report of group discussion before starting class. 2) Report of group discussion after being trained on the Holy abiding 4, 3) Evaluation form of internship, and 4) Opinion evaluation of the students on the lesson intervened by moral and ethic teachings. The collected data were analyzed and subsequently expressed as percentage

Results

Moral, and ethic, responsibility and leadership. Through the Holy abidings 4, 100 percent of the subjects were not discriminated against the patients with cancer, bad odors, infection etc. Secondly (95%), the subjects, when assigned by the doctor, demonstrated their responsibility by punctually taking photos the patients, following the academic principles of dissection and handing in their work punctually. And, 75 percent of the students expressed polite speeches.

Discussion

The students inform holy abiding 4 to apply a vocation. The teacher should role model for students and should have moral and ethic with holy abiding 4.

Faculty development

PJ001

INTERNET USE AND TRAINING NEEDS OF SHIRAZ, JAHROM AND FASSA MEDICAL SCHOOLS

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Background

Using internet for academic purpose can change many important aspects of teaching process.The purpose of this study is to determine use of internet in faculty members of Shiraz Jahrom and Fasa medical schools.

Method

A questionnaire consists of 6 demographic questions and 26 questions about familiarity with information technology and using internet was designed for this purpose. 81 faculties participated in this study.

Result and Discussion

The results showed that 91.9 percent of faculties were internet users. 23 percent had the average of their usage less than 1 hour a day. The majority was not satisfied with the speed of internet connection.43.3 percent of them reported that they need more education about internet use for academic purpose.

Conclusion

In conclusion it seems that the limitation of using internet by academic staff is the result of the lack of time or limitation of their usage ability. It seems necessary to educate our faculty more about using internet for academic purpose

PJ002

PROPER USE OF STATISTICS IN MEDICAL RESEARCH, AND POSITION OF PROBABILITY AND STATISTICS IN HIGH SCHOOL MATHEMATICS

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Background

In Japan, t-test is the most favorite statistical method in medical papers. However, statistical approach in medical papers is often inappropriate. Many factors may cause this widespread misuse.

Method

In this study, we focus on high school education and position of statistics in mathematics curriculum. We conducted a survey about education of probability and statistics at high school in new students of the medical department and the medical infor-

matics department who are expected to engage in researches in the future.

Result and discussion

Although probability and statistics is one field in high school mathematics, it is underestimated compared to other fields such as differentiation and integration.

As a result, probability and statistics is likely to be put off. One of its reasons is that probability and statistics are not important in entrance examinations of universities. That is, poor statistical approach in medical researches may be caused by insufficient curriculum at high school.

Conclusion

We suspect that the idea "statistics is not important" is planted at high school and becomes one major cause of poor usage of statistics in researches. In other words, a problem in mathematics education is one factor leading to misuse of statistics in actual research activities.

PJ003

A "GENERAL MEDICAL TEACHER": A MISSING LINK IN UNDERGRADUATE MEDICAL EDUCATION?

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Background

Expert consensus documents imply that the primary goal of undergraduate medical education (UGME) is to train students into becoming competent basic doctors capable of delivering quality primary health care. The demand for producing doctors will rise as populations grow, and if UGME has to sustain, it will be limited by the availability of quality medical teachers. Thus far, UGME has been driven mainly by subject experts (not necessarily expert teachers) delivering instruction in their respective specialties. Such a system predisposes to content overload, unwarranted redundancy, and increases the time and cost of UGME.

Methods

The use of a more centralized system consisting of 'general medical teachers' judged to be capable of imparting the 'minimum essential requirements' in various outcome- competence domains is suggested. The "general medical teacher" (GMT) is a medical doctor (who may or may not have specialized in a particular branch of medicine) who has undergone formal training in pedagogy, and is able to deliver quality primary medical education in several subjects to undergraduate medical students just as a basic medical doctor provides safe and quality primary health care. This would be strengthened by a system of referral to subject experts when necessary.

Conclusions

In the least, it is imperative that UGME be reformed so that it produces not only doctors but doctors who are potentially general medical teachers. How it works will also depend upon reform of several other facets of medical education including the curriculum. And how this new model compares with the prevailing 'traditional' system in terms of quality, cost and outcomes merits investigation.

Others

PK001

A PRELIMINARY STUDY ON THE VALIDITY AND RELIABILITY OF EVALUATING FORMS ASSESSING THE FACULTY MEMBERS' TEACHING APPROACHES

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Background

Evaluating university teachers is one of the important tools in the process of educational activities which makes it possible to identify and locate a wide range of strengths and weaknesses of teaching approaches enabling the authorities to reinforce the positive points and take a measure to improve the situation.

Objective

The objective is to estimate the validity and reliability of evaluating questionnaires filled out by the students of Fasa Medical College for the assessment of teaching approaches which are applied by the faculty members of the college in teaching theoretical, practical and laboratory courses.

Method

The questionnaires present in E.P.C. of Fasa Medical College was evaluated for its validity and reliability in a way that first forty faculty members assessed and measured the reliability of its contents in terms of weighing each phrase. Afterwards, the internal consistency of the questionnaire was estimated by using "Chronbach coefficient alpha".

Findings and discussion

Among the domains examined in the two questionnaires assessing the faculty members' teaching approaches to theoretical, practical and laboratory courses, the teaching

approaches domain consisted of five choices had the highest reliability (93% and 94%) respectively ; however , the evaluating domain (taking the test during the semester) related to the questionnaires evaluating the theoretical courses allocated the lowest reliability coefficient (59%). Overall, the above-mentioned questionnaire with the reliability coefficient of 96% and 92% was decided to be an appropriate tool for the evaluation of university teachers by the students. The findings indicate that the reliability of the contents and validity of the items of the questionnaires evaluating both theoretical and practical courses were reasonable.

Key Terms

reliability, validity, evaluation, faculty members, teaching evaluation

PK002

PATIENT ATTITUDES TOWARDS MEDICAL STUDENTS IN RIYADH, SAUDI ARABIA

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Introduction

The aim of this study was to describe patients' attitudes toward medical students.

Methods

This study was conducted for 2 months at 2 hospitals. The randomly selected patients were interviewed using a questionnaire. Data were analyzed using SPSS software.

Results

Of the 492 patients surveyed, 51% were outpatients, 50% were males and 60.2% had interacted with medical students before. The majority of the patients (80.7%) felt that the general appearance and manner of the medical students affected their co-operation ($P<0.01$). However, 64% would not object to the presence of medical students during examinations ($P=0.003$), while 63% stated that they should be informed beforehand ($P=0.005$). More than half of the patients believed that they had the right to refuse medical students and 57.9% preferred medical students of the same sex ($P=0.01$). Forty-two per cent of the patients preferred the presence of the physician alone during examination. The inpatient's preferences were different towards the visiting hours of medical students.

Discussion

Maintaining privacy seems to be the most important aspect of patient-doctor relationship. Improved collaborations with patients would provide better teaching opportunities for students at most levels of patient care. Prior information about the involvement of medical students in patient care was the crucial aspect in establishing a positive patient-medical student relationship.

PK003

CORRELATION BETWEEN NICOTINE DEPENDENCY WITH PERSONALITY TYPES AMONG STUDENTS OF RAFSANJAN UNIVERSITIES - IRAN

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Background

Inadequate education about tobacco and nicotine dependency and personality that may contribute to the missed opportunities by health practitioners to provide effective tobacco-treatment interventions to their patients. Personality appears to play a key role regarding the tobacco use behavior of young adults.

Objectives

This study investigated the relationship between psychological personality type, and tobacco dependency among university students.

Design & Methods

A cross-sectional survey on 600 university students were surveyed using the Bortner scale for personality type and fagerstrom scale for the Tobacco dependency. The study sample randomly was choosing from 3 universities. All of the subjects were volunteers and enrolled in their respective college or university at the time of data collection during the fall semester of 2004.

Results

Respondents ranged in age from 17 to 35 years, with a mean of 22.01 years (SD = 3.55 yrs.), a median of 21 years and a mode of 20 years. Among the study participants, the most prevalent personality types were B (56.8%) and 43.2% were A type .Regarding smoking status, 17.5% of the students reported to be smokers and 78.2% indicated they were nonsmokers. Regarding tobacco dependency level, results showed 66.7% smokers had low dependency and 33.3% were physical dependence on nicotine. With respect to age of smoking onset, 14.5% initially smoked at age 12 or younger. Concerning the difference between smokers and nonsmokers based upon their personality type, results showed that 51.4% smokers had A personality type and 59.9% nonsmokers were B type. there was statistical Differences

between personality type and tobacco use in students ($p < .0.5$). Concerning the difference between personality type and tobacco dependency in smokers, results showed a statistical differences between physical dependency and personality type in the other word, 67.3% smoker students with physical dependence on nicotine had A personality type. ($p<0.05$). The findings of this exploratory study emphasize the need for continued attention to the potential impact of personality and tobacco use and physical dependency on nicotine. Results suggest there exist several psychological types that have a higher than expected association with tobacco use than other types.

Keywords

Nicotine dependency ,personality type,students, rafsanjan.

PK004

KNOWLEDGE, ATTITUDE AND PRACTICE OF INFECTIOUS DISEASE RESIDENTS OF SHAHID BEHESHTI MEDICAL UNIVERSITY TOWARDS EVIDENCE-BASED MEDICINE

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Background

To determine the attitude of residents of infectious diseases towards evidence based medicine and their related educational needs.

Methods

Residents of infectious diseases from Shahid Beheshti medical university received a self-administered questionnaire and all of them participated in the study. Their attitude towards EBM, their ability to access online resources, and their understanding of relevant terminology was assessed.

Results

Thirty four residents responded and returned the questionnaire. Most respondents showed welcoming attitude towards EBM. The median value for the estimated percentage of the residents' clinical practice that was evidence based was 50%. Only one had received training in EBM and none was educated about critical appraisal. The median number of Medline search for management of patients was 4 times in the last year and most residents were even unaware of EBM resources. Although more than 80% had some understanding about terms like relative risk and odds ratio, the understanding was less than 50% for technical terms such as systematic review and meta-analysis.

Conclusions

We recommend that university teaching programs should promote and incorporate EBM training in all levels of medical education.

Keywords

Evidence-based medicine, medical education, survey, attitude, knowledge.

PK005

ACHIEVEMENT EVALUATION AMONG GRADUATED TECHNOLOGY IN BIOMEDICAL COMMUNICATIONS STUDENTS, FACULTY OF MEDICINE, KHON KAEN UNIVERSITY, 2004

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Background

Achievement evaluation is an essential task to the performance and characteristics of the Graduated Bio-medical Communications Students (BCSs). The result is useful information regards to qualified graduates and quality assurance.

Methodology

Descriptive study design was used. The questionnaire with 1-5 Likert's scale (5 = excellent, 4 = good, 3 = fair, 2 = poor, and 1 = very poor, need improvement) composed of 10 item in 4 aspects : (1) competency (2) performance, (3) ethic and (4) total achievement were conducted, sending by mail to BCSs and their employers. Data analyses were mean, standard deviation and quisquare- test.

Results

There were 88.24% of response rate among BCSs and 100% among their employers, respectively. Total of achievement among BCSs found was high level. This study also found achievement scoring by BCSs was 4.3 (SD 0.61) and achievement scoring by the employers was 4.06 (SD 0.96). There were no statistically significance between BCSs opinion and their employers ($P>0.05$)

Discussion

Though, this study found achievement evaluation among BCSs was high level. However, the study found some opinions of BCSs and their employers' perspectives were beneficial to the Technology in Biomedical Communications Program courses improvement regards to qualified graduates.

PK006

PROBLEM AND OBSTACLE DURING INTERNSHIP TRAINING IN THE FIRST 6 MONTHS OF 2006-7

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Objective

To determine the problems and obstacle during internship training in the first 6 months.

Methods

The study was conducted during September-November 2006. We visited 16 hospitals (3 regional hospitas, 13 provincial hospitals) in the Northeast region of Thailand where Interns from various medical schools worked for at least 6 months. The local staff who are responsible for internship training, and Interns themselves in each hospital were interviewed by indepth approach.

Results

The study showed that a demand and supply of Intern in each hospital was not a good proportion. Interns were provided less than requested in all 3 regional hospitals and 9 provincial hospitals. From Intern's point of view, the main problems in their first 6 months was the patient overload (42.59%) and lacked of academic environment (20.30%). In contrast to local staff's point of view the individual intern performance was the major obstacle during internship training (66.67%) and the second important problem was the inappropriate work system design and management of the hospitals (25.64%).

Conclusion

Intern is the first doctor who cope with various patients. Twelve months period is a crucial time that local staff in hospital could fulfill and top up the clinical skills for Intern. However, well-prepared young doctors from the medical schools to cope with hard-working environment, capable of self directed learning, and capable of continuing education will help interns to succeed in their career path.

PK007

SELF EVALUATION IN MANAGEMENT OF 42 EMERGENCY CONDITIONS BY INTERNS

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Objective

To explore by self evaluation in management of 42 emergency conditions during internship training in the first 6 months.

Method

During September- November 2006, 285 Interns who worked in 3 regional and 13 provincial hospitals in the Northeast region of Thailand for 6 months were asked to grade their confidence in management of 42 emergency conditions at 5 level scale (very confident, be able to manage alone, sometimes need suggestion, manage under supervision, not confident to manage).

Results

The questionnaire respond rate was 69.47% (198 in 285).The study showed that Intern who worked in provincial hospitals had more confidence in management the emergency conditions than who worked in regional hospitals. Most of Interns were able to manage the 42 emergency conditions by themselves. The most confident emergency conditions to manage was in medicine subject, and the least confident in management was the emergency conditions in obstetrics and gynecology.

Conclusion

Most of Interns were able to manage the emergency conditions by themselves in both provincial and regional hospitals. Well-prepared doctors from medical school and top up supervision from local staff will help the new young doctors to work happily.

PK008

SELF EVALUATION OF 24 ESSENTIAL SKILL COMPETENCY OF THE INTERNS

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Objective

To explore self evaluation of 24 essential skill competencies during the first 6 months of internship training.

Method

During September- November 2006, the 285 Interns who worked in 3 regional and 13 provincial hospitals in The North-East region of Thailand for 6 months were asked to grade their confidence in skill competency at 5 levels viz very confident to perform, be able to do alone, need some advice, perform under supervision, unable to perform by oneself of 24 essential skill performances as recommended by The Thai Medical Council.

Results

The questionnaire respond rate was 69.72% (198 in 285). The

Interns who worked in regional hospital had more confidence in essential skill performance than who worked in provincial hospital.

Interns perceive that they were able to perform skills in internal medicine better than obstetrics and gynecological skills or surgerical skills.

The 3 most confident skills were, taking Papanicolaou smear, dressing wound, performing lumbar puncture. The 3 least confident skills were, conducting tracheotomy, applying skin and skeleton traction, and performing anterior nasal packing.

Conclusion

The internship training program was essential for new young physicians to increase their clinical skill. This study survey, once again, addressed the loop hole stemming from all parties concerned, viz. the newly graduated doctors, physicians in situ as well as in the medical schools. The well planned cooperation to manage these human resources will assist the interns effectively.

PK009

CIPP MODEL IN RESIDENCY ACCREDITATION

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Background

The CIPP Evaluation Model is a comprehensive framework for program evaluation. Context assesses content. Input assesses resources. Process assesses implementation of activities. Product assesses the quality of outcomes. *Objectives:* 1.) analyze the result of program evaluation of different institutions in terms of context, input, process and product. 2.) compare the results of the different programs in terms of phases of accreditation. The Philippine Academy of Family Physicians has 42 accredited residency training programs. In 2004, it changed its manner of accreditation using a modification of the CIPP evaluation model.

Method

Mean score of the programs in each category was computed based on the result of the accreditation. ANOVA was used to compare the various programs based on their phase of accreditation.

Result and Discussion

Twenty two programs were accredited from 2004-2006 using this new format. For curriculum content, the programs met only 64% of the required criteria. Majority of the program have adequate resources. As to the implementation, it was only in patient care that the programs met most of the criteria. As to the product, performance is low. There is no significant difference among the different programs.

Conclusion

Enhancement in the programs should be geared towards improvement in the context, implementation of family, community and research competencies as well as the product.

PK010

OCCUPATIONAL VALUES FOR DENTAL PROFESSION OF DENTAL STUDENTS IN KOREA

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Background

Occupational values education is very important when cultivating professional dentist. The purpose of this study was to investigate the occupational values of Korean dental students. Categories were divided into sex, grade of student, hopes on pursuing a career after graduation and satisfaction with choice of major.

Methods

Data were obtained from 250 dental students. 217 responses were used in the analysis (a return rate of 86.8%). The questionnaire consisted of 16 items and 4-point Likert- scale response. The 16 items were categorized into 5 factors. Data were conducted by SPSS.

Result

Autonomy ranked 1st out of the 5 factors of occupational values. Next was economic security, followed by working conditions, self-realization and social values. The mean score for male students autonomy values was higher than that of female students. Yet, the mean score for female students self realization's value was higher than that of male students. The higher the grade, the higher the self realization, but the other values were the opposite. Occupational values of the dental students who were satisfied with their major were higher than the others. For autonomy's value, the dental students who hoped to complete the training course after graduation were higher than those of the other students who hoped to open dental clinics.

Discussion

Many of the dental students in Korea are more concerned with the values of autonomy and economic security rather than self-realization and social values with the profession. Hence some programs that strengthen the internal values of the dental student need to be established.

PK011

THE EFFECT OF WATERCOLOR PAINTINGS AND ARTS ON STRESS REDUCTION AND SELF ESTEEM OF MEDICAL STUDENTS

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Background

Studying medicine subject is so stressful because of workload and lack of positive feedback by teacher together with worries about finances. A higher percentage of depression than did the general population was identified by Marlie Dahlin et al. at the Karolinska Institute Medical University. Sports, arts and music are example of activities that can reduce stress and produce self esteem.

Methods

The art club of Siriraj medical students was originated since 2000. Dr.Suchart Vongthong is the first teacher who devoted himself for on demand teaching on Saturday morning. Two years later the art club was established by supporting of faculty of medicine, Siriraj hospital, affording regular teacher. The activity did not include only in Siriraj hospital boundary, but also spent overnight stay outside Bangkok, at scenic area such as sea, forest or mountains. The artwork was gathered for annual exhibitions and also created as New Year cards. Some profit was donated to the public such as student's fund, renovation of building and foundation.

Results

Every medical student in the club can practice watercolor paintings. After each session, the artworks were criticized in positive feedback. Their artworks were exhibited annually. Some of them were selected to make the greetings cards. During activity, especially outside Bangkok, they have a chance to talk happily and ventilate their stress. Good relationship between them and teacher last long for many years. These activities make the medical students happy and proud of their artworks.

Conclusion

Watercolor paintings and arts need good observation and coordination of hands and eyes. It stimulates imagination, which is very important for learning. It also has a good meditation that can make people calm down. We hope that these basic skills are necessary process for developing medical students to be good and perfect doctor.

PK012

ARE THERE ANY INTERRELATIONS BETWEEN STUDENT SATISFACTION AND THE RESULTS OF CHULALONGKORN UNIVERSITY CURRICULUM QUALITY ASSURANCE SELF-ASSESSMENT ? THE CASE STUDY OF FACULTY OF MEDICINE, CHULALONGKORN UNIVERSITY

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Chulalongkorn University has implemented the 4 main core processes into their quality model, "CU Quality Model", and referred as the "Pillar". Chulalongkorn University Curriculum Quality Assurance (CU-CQA) is one important pillar.

This study is aimed to define whether there are any interrelations between 2005-2006 student satisfaction (SS) and the 2006-results of CU-CQA self-assessment.

A standardized questionnaire was utilized to assess student satisfaction among 2005-2006 graduates from 15 programs. Student Satisfaction Questionnaire (SSQ) was composed of a 9-item Likert-type scale. The SSQ asked students to respond to each question using a 1-5 Likert-type scale, 1 being very poor and 5 being very good.

CU-CQA self-assessment consists of 81 requirement indicators. The consensus idea of management team of each program was required when performed the check-list for self-assessment. The results showed that: 1) the maximum and minimum CU-CQA scores do not belong to the same programs as SSQ scores. 2) Two in three programs that could not pass the CU-CQA criteria (70%) got the low scores from SSQ also. 3). However, the program that received the highest student satisfaction is not the best practice of CU-CQA self-assessment. Therefore, student satisfaction may be involved with some other sensitive issue that CU-CQA cannot cover.

PK013

A SURVEY FOR INSTRUCTIONAL METHODS IN CLINICAL CLERKSHIP

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Purpose

Small group teaching method (SGTM) in clinical clerkship focus on active learning and communication between members of the

group. Currently, most promising SGTM includes PBL (problem based learning), TBL (team based learning), FD (focused discussion), SLS (student-led seminars), and RPL(role play). This study is a survey of clerkship students and teachers to investigate teaching methods at Konkuk University School of Medicine (KUSM), Seoul, Korea and to survey on their knowledge, preference and cognition on SGTM in order to feedback its implications to the clerkship educators.

Methods

150 clerkship educators and medical students at KUSM were involved in a survey via online on their teaching methods for clerkship, and cognition and preference of 5 SGTM including PBL, TBL, FD, SLS and RP. Felder's index of Learning Styles (ILS) was also performed for this study. Frequency and correlation analysis were conducted to find out the relevance of the teaching methods and study satisfaction.

Results

46.6% had responded and 7 of them were excluded from the analysis because of incomplete response. Among the respondents, 33.3% favored FD for the effective clinical clerkship; 25.4% PBL, 25.4% TBL, 14.3% RP, and 1.6% SLS. 27% of the respondents at KUSM showed reflective/visual/sensing/global learning style. Active learner favored TBL, whereas reflective learner favored FD.

Conclusions

The different teaching methods are chosen in clinical clerkship depending on who we are teaching and who are teaching. This study helped increase understanding of several useful SGTM for the clerkship educators so that they can apply its advantage and disadvantages for clinical clerkship.

Key words

medical student, small group teaching method, clerkship, instructional methods

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ABOUT AMEA

About the Asian Medical Education Association (AMEA)

AMEA is an institution-based association of Asian medical schools established in 2001. The aims of the Association are: (1) to identify, recognize and enhance the characteristic features and strengths of Asian medical education; (2) to share information and experience about medical education; and (3) to strengthen and promote good pedagogy and research on medical education. Since its establishment, AMEA had organized some international symposia on medical education in Asia. The first one was held in Hong Kong in June 2001 with the support of the Faculty of Medicine of The University of Hong Kong. The second symposium, hosted by the Shanghai Medical College of Fudan University, was held in November 2003 in Shanghai. The third biennial symposium was held in 2005 in Seoul, with the Faculty of Medicine of Sungkyunkwan University being the hosting institution.

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