CATEGORY: Curriculum Abstract ID: 10-102

INTEGRATED CASE DEVELOPMENT AND INTERDISCIPLINARY FACULTY COLLABORATION

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PURPOSE

To promote interdisciplinary faculty collaboration through the development of integrated case content (clinical medicine, medical arts, basic science).

METHODS

Six to ten core clinical and basic science faculty met weekly for 2-3 hours over the course of 20 weeks to brainstorm and develop integrated patient cases and accompanying discussion questions for Phase I of a newly integrated medical school curriculum. Case content included: patient history, physical examination, laboratory, imaging, gross and histopathologic data. The clinical problem provided the context for all faculty to develop content and questions. The case was posted at the beginning of each week for students to review. Faculty supervised students who met in small groups (8) every Friday to analyze the case and answer the questions.

RESULTS

The process of case development has become the cornerstone for successful integration of all content areas into our new curriculum. Fourteen integrated cases were developed for Phase 1. Faculty found that the process improved coordination of their teaching. Baseline Phase I survey data indicated that 100% of the core faculty found the integrated cases to be an effective teaching method and 87 % felt faculty collaboration was useful. Additionally, students qualitatively identified the integrated cases as the most valuable component of the curriculum.

CONCLUSIONS

The process of interdisciplinary, integrated case development appears to enhance collaboration among faculty and provides an educational activity that is valued by students. This process warrants further study.

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CATEGORY: Curriculum Abstract ID: 10-105

AN INTEGRATIVE APPROACH TO TEACHING CLINICALLY ORIENTED EMBRYOLOGY

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PURPOSE

To understand congenital defects one must know embryology. We have found that combining embryology with pathophysiology in an active learning, clinical presentation context is an effective way to teach clinically oriented embryology.

METHODS

This integrative approach requires a basic scientist (embryologist) and a clinician who collaborate as co-lecturers / co-discussion leaders. For example, the focus of a recent 2-hour class at our institution was "Congenital Heart Disorders: Left-to-right Shunts". This class followed others in which students received instruction on the clinical presentations of chest pain and abnormal heart sounds, followed by heart anatomy, physiology and embryology. Among the shunts covered in this class were atrial septal defects (ASD), patent foramen ovale, ventricular septal defects, and patent ductus arteriosus. For ASDs, the embryologist presented a brief review of atrial septal development and asked students to discuss how each of the 3 types of ASD (primum, secundum and venosus) might arise. The clinician then used diagrams of the circulatory system to guide students to deduce ASD symptoms and signs. The other shunts were then sequentially discussed in a similar fashion.

RESULTS

The efficacy of this active-Learning approach is excellent as evidenced by high student attendance, attention and participation in class, and by positive student evaluations.

CONCLUSION

Integrating basic and clinical science is effective when basic scientists and clinicians present complementary information together in a clear clinical context that involves active participation of students. This approach is effective for teaching pathophysiology along with any other basic science discipline.

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CATEGORY: Curriculum Abstract ID: 10-108
Award Nominee

DOES ONE SEMESTER LESS OF PRECLINICAL STUDIES ADVERSELY AFFECT UNDERSTANDING OF CLINICAL PROBLEMS?

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PURPOSE

The new Karolinska curriculum is theme-based and integrated with basic science and clinical science side by side throughout the 11 semesters. Semester 1 to 4 are principally basic science with 10 percent clinical and semester 5 to 11 clinical with 10 percent basic science. One consequence is that the preclinical studies are now one semester shorter than in the old curriculum when students enter the first major clinical course in semester 5 (clinical medicine). In 2009 half the number of students in clinical medicine were from the old curriculum and half from the new but both taking the same course. This offers a unique opportunity to compare the new and old curriculum within the same course in respect to the effect of shortened preclinical stage.

METHODS

The two groups of students were integrated in the course following the same schedule irrespective if they were semester 5 or semester 6 students. The tests in internal medicine taken during the course as well as the students evaluation questionnaires were the same for all students but after correction and compilation they were separated thus permitting comparison of the two groups. At this time 2 of 3 exams in internal medicine have taken place.

RESULTS

The test results for the 2 first exams in internal medicine were almost identical for the two groups of students. When analysed by subject this also held true as well as when individual questions in the test were analysed. There is no difference in teacher evaluations of the two groups clinical rotations. In student evaluations of the course there was a trend towards semester 5 students preferring lectures whereas term 6 students preferred clinical case seminars.

CONCLUSION

Integration of clinical- and basic science also means that students meet clinical training earlier in their studies with less preclinical studies and training. The two groups of students in this study differ by 1 semester in their preclinical training but show similar results in theoretical exams and in evaluations of practical skills training.

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CATEGORY: Curriculum Abstract ID: 10-110

PREPARATION FOR CLINICAL CLERKSHIPS: COMPARISON OF TWO PRECLINICAL CURRICULA

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PURPOSE

Third-year clerkship directors rated students' preparation for clerkships in the new, integrated pre-clinical curriculum higher in medical knowledge than in the discipline-based curriculum. We wanted to determine if faculty ratings and clerkship performance supported this finding.

METHODS

At the end of the first clerkship rotation, clerkship directors rated students' level of preparation on ACGME competencies. Faculty rated students on the competencies using a clinical performance rating form (CPR). Internal Medicine, Pediatrics and Surgery were chosen for comparison because their CPR forms were collected electronically. USMLE subject exam scores and clerkship grades were also compared.

RESULTS

For medical knowledge, directors rated students in the integrated curriculum significantly higher than students in the discipline-based curriculum. Overall, there were no significant differences between curricula on any faculty rated CPR competency. Students in the integrated curriculum were rated higher in practice-based learning in Internal Medicine. They were rated lower in practice-based learning and systems-based practice in Pediatrics and lower in practice-based learning and professionalism in Surgery. There were no differences between the curricula on clerkship grades or subject exam scores.

CONCLUSIONS

Although directors indicated that students in the integrated curriculum were better prepared in terms of medical knowledge, faculty ratings, exam scores and grades did not support this finding. The lack of agreement may reflect method variance. Directors used a general gestalt rating for each competency, while faculty were asked specific questions within each competency. Further, subject exams and clerkship grades were mostly objective while the ratings were subjective.

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CATEGORY: Curriculum Abstract ID: 10-112

INTEGRATED BASIC AND CLINICAL SCIENCE CASE REVIEW USING HUMAN PATIENT SIMULATION

Brown, Kristina OMS III*, Andrea Nazar D.O., and Craig Boisvert D.O.

PURPOSE

Human patient simulators are often simply used for clinical scenarios. However, human patient simulators can be integrated into basic science curriculum via patient case studies. This research focused on the use of human patient simulators during components of cardiovascular and respiratory basic science case studies.

METHODS

Second year osteopathic medical students performed history and physical exam skills on human patient simulators in group settings of 4-5 students. During these encounters, a faculty member guided the students through correct communication and physical examination techniques. In addition, the faculty member reviewed basic science step one board review material pertinent to the case presentation, including pharmacology, microbiology, pathology, and physiology. Before the encounter, the students were given a pre-test of the concepts they would cover during the case. After the encounter, the students were given a post-test and a questionnaire.

RESULTS

The results of the post encounter questionnaires showed 100% of the 51 students thought the experience was worthwhile and would repeat the experience if given the opportunity. The students rated the value of the session 9.7/10. Pre-test scores showed an average of 38% while the post-test average increased to 86%.

CONCLUSION

Basic and clinical science integration with human patient simulators enhances student participation, learning, and understanding of complex case material. By expanding the project to more organ systems and to larger group settings, more students will receive greater integration of basic science course material with clinical hands on simulated training.

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CATEGORY: Curriculum Abstract ID: 10-129

DEPARTMENT OF SCIENCE EDUCATION: AN INTEGRATED FRAMEWORK FOR LEARNING WHAT, HOW MUCH AND WHEN

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PURPOSE

In many traditional medical schools pre-clinical science faculty are selected from basic science departments and serve as short term educators. Cross departmental faculty may also come together as an Academy of Medical Educators. In our new approach we created an identity and consciousness, within a departmental setting, that promotes collaboration and scholarship. Departmental goals reflect and complement the cultures of our university, health system and the community.

METHODS

Core departmental faculty act as multidisciplinary content experts, both within the standard basic sciences and outside, from anthropology through medical narrative. With no traditional basic science courses, all are presented longitudinally, at the appropriate level, with primary exposure then revisits to refresh and advance. Faculty monitor progress of their primary discipline and collaborate to promote interdisciplinary integration. Recruitment, which was based on these fundamental principles, allowed candidates to be selected not just for their knowledge, but for their enthusiasm and an ability to think longitudinally and out of the box.

RESULTS

As the medical educator community became aware of our new approach to science education, considerable excitement became evident. Recruits were well aware of the wave of changes sweeping across medical school communities in the US, and how this was exemplified in our new approach to creating a unified home of sciences that had a broad reach beyond traditional disciplines.

CONCLUSIONS

The right people, imbued with our way of thinking, were willing to take a chance and move in a new direction, away from traditional approaches such as large group lecture teaching, to facilitation of student generated learning in an integrated cross disciplinary department.

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CATEGORY: Curriculum eDemo Abstract ID: 10-140

TEACHING ANATOMY IN AN INTEGRATED UNDERGRADUATE MEDICAL CURRICULUM: EXPERIENCES FROM THE UNIVERSITY OF KANSAS, SCHOOL OF MEDICINE

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PURPOSE

In 2006, the KUSOM instituted a technology- and module-based, integrated medical curriculum. The curriculum begins with Foundations of Medicine (FOM), Genetics and Neoplasia, Inflammation and Immunity and progresses through systems during the first year: Cardiopulmonary, Gastrointestinal Nutrition (GIN), Renal/Endocrine, and Reproduction and Sexuality. In the second year, the modules are: Musculoskeletal, Brain and Behavior (B&B), Blood and Lymph, Infectious and Parasitic Diseases, Medicine Across the Lifespan (MAL), and Integration and Consolidation.

METHODS

Tablet PCs are used to integrate technology components and learning concepts, providing 24/7 access to all curricular content. Lectures decreased by 40% and are podcast using Camtasia Relay. Lectures were replaced by small group, e-Learning, and formative activities. Histology and cell biology labs begin in the first year FOM module and continue as integrated histopathology laboratories using digital videos, virtual microscopy, and electronic quizzes. Human Anatomy begins with thorax dissection in Cardiopulmonary and continues in GIN (abdomen), Reproduction and Sexuality (pelvis), Musculoskeletal (extremities), and B&B (head and neck) modules. Human Anatomy uses team dissection, cadaver teams, a radiological anatomy website, and lectures for content dissemination. Embryology is introduced in FOM, focusing on concepts of early development and is subsequently integrated into appropriate systems/modules. For 2010, key basic and clinical embryology concepts were reviewed in MAL with clinical cases. Neuroscience is now integrated with head and neck anatomy and behavioral sciences in the B&B module using clinically-oriented labs and small groups.

RESULTS

A few early technical problems have been overcome and student satisfaction with the curriculum has been high.

CONCLUSION

The tablet PC can be used effectively to integrate anatomical content in an electronic curriculum which includes traditional human anatomy, neuroscience, and histopathology labs coupled with state-of-the-art media.

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CATEGORY: Curriculum Abstract ID: 10-150

DEVELOPING A MODEL TO INTEGRATE EVIDENCE BASED MEDICINE INTO A CROWDED CURRICULUM

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PURPOSE

Adding new material into a crowded curriculum without sacrificing existing course content and adding faculty contact hours can be a challenging task. Kirksville College of Osteopathic Medicine (KCOM) developed a model to integrate evidence based medicine (EBM) content into its curriculum and add a new course.

METHODS

KCOM instituted a faculty development workshop series using Diffusion Theory to gain faculty support to accelerate infusing EBM concepts into a full curriculum and cultivate cultural change. KCOM used a pretest-posttest design without a control group, actuated multiple quality circles, initiated a curricular mapping tool guide EBM planning, and brought in neutral third party faculty from an allopathic partner school to lead discussions. Faculty attitudes, confidence levels, and courses that included EBM applications were measured.

RESULTS

Data collected from the workshop series found 94% of faculty agreed to find ways to incorporate EBM into their classes. Summative evaluations revealed a statistically significant increase ($P<.001$) of faculty teaching EBM concepts within two years of launching the project. Faculty advocated, without prompting, to reallocate hours and for the formation of foundational EBM course which was implemented one year after the first workshop. This resulted in all incoming KCOM students being taught EBM skills in Quarter One, an improved faculty culture, and no change in faculty contact hours.

CONCLUSIONS

Evidence suggests that a faculty development model emphasizing a "bottom to top" approach is effective in achieving workplace culture changes and seamless curricular transitions. Results demonstrate that a consensus building model is conducive to engaging faculty, garnering support, and effectuating curricular change.

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CATEGORY: Curriculum Abstract ID: 10-164

INTERPROFESSIONAL TRAINING: ELECTRONIC HEALTH RECORDS, EVIDENCE-BASED MEDICINE & MEDICAL INFORMATICS

Bruce W. Newton*, Janice K. Hart and Steven E. Boone, The University of Arkansas for Medical Sciences (UAMS), Little Rock, AR, 72205 U.S.A.

PURPOSE

Health professionals in hospitals and private practices will soon need to use electronic health records (EHR). Thus, UAMS recognized that undergraduate health-related students must learn EHR skills to enter the workforce. Standardization of EHR language will facilitate translational research, so training in Medical Informatics (MI) & Evidence-Based Medicine (EBM) is needed.

METHODS

UAMS identified strengths and weaknesses of our existing curricula based on competencies from the Joint Work Force Task Force Training: Health Information Management and Informatics Core Competencies for Individuals Working With EHR, & Competency M8 in Scientific Foundation for Future Physicians. Each college will identify core objectives their students will master in EHR, EBM & MI. Students will use EHR, EBM & MI starting with their first patient care encounters in an interdisciplinary environment & in college specific curricular activities. Mock patient EHR will be used in classes, clinical simulations, and standardized patient learning activities. Web-based instructional modules will be used to supplement face-to-face training. Sharing of expertise and educational modules will minimize duplication of time and effort. Clinical librarians will participate in EBM and MI training. All first year classes would be introduced to EHR issues via an interdisciplinary seminar series. The Center for Clinical Skills Education will use the patient database for interdisciplinary OSCE encounters.

RESULTS

Program evaluation will be followed by the creation of enduring materials and expansion of the program. The evaluation and assessment plan will focus on evaluation of the materials in terms of usability, efficacy in producing knowledge, attitude, and behavior change toward use of EHR, MI, and EBM.

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CATEGORY: Curriculum Abstract ID: 10-171

TOWARDS A COMPREHENSIVE E-BOOK FOR DELIVERING LEARNING MATERIALS IN A CLINICAL PRESENTATION-BASED CURRICULUM

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PURPOSE The Paul L. Foster School of Medicine is a new medical school located in El Paso Texas, just completing its inaugural academic year. The curriculum for the first two years is based on ~120 clinical presentations that represent signs and/or symptoms that would lead individuals to seek medical care. Each clinical presentation begins with an 'inductive scheme' session presented by an expert physician followed by 3-4 days of relevant basic and clinical science. This is followed by a related 'medical skills' session that focuses on acquiring interpersonal and diagnostic skills through the use of simulation technologies and standardized patients. Finally, a physician-run 'worked case example' small group session reinforces the acquired knowledge and skills by thorough review of several actual clinical cases. While this curriculum provides a highly dynamic and integrated presentation of basic science and clinical material, organizing and searching through the sometimes bewildering assortment of learning materials has proven daunting to the student. The goal of this project is to provide user-friendly software that will enable the student to efficiently navigate a comprehensive set of integrated learning materials, learning objectives, self-assessment items and web-based interactive tutorials.

METHOD Currently we are using the iLios curriculum management software developed originally by the University of California at San Francisco School of Medicine. This software is linked to a comprehensive database containing learning objectives, session-related materials (e.g., PowerPoint and Camtasia files) and assessment items. The students access a calendar and relevant materials using the portal WebCT. However, the assigned reading is contained in more than 15 individual textbooks, a necessary complexity due to the integrated clinical presentation model. We are currently upgrading the iLios system, which will include enhanced student navigation software. This 'E-book' software will provide all of the previously available learning and assessment materials, and in addition provide all of the required reading materials in both web-based and printable formats. Links to clinical-presentation based interactive web-tutorials will be a prominent feature of the E-book. The navigation system is designed so that students can reach any place within the E-book within seconds. Furthermore, students will be able to bookmark and annotate individual pages, and create customized study portfolios.

RESULTS A pilot E-book project, scheduled for completion in November 2010, will use a clinical presentation from the MS2 'Reproduction' unit to beta-test the functionality of the upgraded iLios software and interactive modules. We will solicit feedback from MS 2 students in our inaugural class during this testing phase.

CONCLUSION We anticipate the completion of the enhanced version of iLios, the E-book, and corresponding interactive web-based modules in March 2011. This resource will improve student access to the content of our curriculum and provide faculty with additional opportunities to enhance integration.

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CATEGORY: Curriculum Abstract ID: 10-172

A CONTEMPORARY METHODOLOGY FOR TEACHING CLINICALLY ORIENTED IMMUNOLOGY

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PURPOSE

Paul L. Foster School of Medicine is a new medical school with a clinical presentation-based curriculum where students learn basic science relevant to clinical science in the context of common patient presentations. Combining immunology and pathology in this context has emerged as an effective way to teach clinically-oriented immunology.

METHODS

This integrative approach requires an expert immunologist and a clinical pathologist who collaborate as lecture/discussion leaders. For example: the focus of a recent 2-hour session was "Vasculitis". Preceding sessions centered on the clinical presentation of abnormal pulse, providing instruction in the control of heart activity, vascular development and physiology. Our integrated immunology/pathology session focused on diseases causing large, medium and small vessel vasculitis. For each, symptoms, type of vascular involvement, epidemiology, immune mechanisms, gross pathology and histopathology were presented in an active interplay between clinical pathologist, immunologist and students. Clinical cases were provided to facilitate further discussion.

RESULTS

Effectiveness and students' perception of the usefulness of this active-Learning approach are excellent as evidenced by high attendance, attention and participation in class, positive evaluations and good scores on formative and summative evaluations.

CONCLUSIONS

Integrating basic and clinical science is effective when basic scientists and clinicians co-present complementary information in a relevant clinical context that involves active participation of students. This approach is effective for teaching immunology as well as other basic science disciplines.

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CATEGORY: Curriculum Abstract ID: 10-176

DISTINCTION IN MEDICAL EDUCATION (DIME) AT ROBERT WOOD JOHNSON MEDICAL SCHOOL: 3 YEARS LATER

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PURPOSE

The Distinction in Medical Education Program (DIME), implemented in the 2007-08 academic year, is an enrichment program to recognize medical students who participate as teachers and tutors, as collaborators with faculty to develop course materials, as course representatives and student curriculum committee members, etc. The DIME program prepares medical students to teach and engage in educational scholarship. We hope it will promote careers in academic medicine.

METHODS

Requirements for achieving DIME include completion of an M1-M2 medical education elective, teaching experience, completion of an M3-M4 medical education elective, and completion of a scholarly project. DIME projects are mentored, and judged acceptable by a committee of faculty.

RESULTS

The non-credit elective in years 1 and 2 has enrolled 94 students, 39 students have completed the attendance requirement, and 16 have completed the elective. Twelve students have submitted a preliminary application for DIME. Two students have completed scholarly projects in education and will graduate with Distinction in Medical Education in May, 2010.

CONCLUSION

Several challenges have been addressed regarding the DIME Program during the first 3 years: (1) Student perceptions about rigor of DIME, and time it takes to plan and complete a scholarly project; (2) Identifying core and non core experiences in the M1-M2 DIME non-credit elective; (3) Recruiting faculty to mentor students, develop electives, and participate in other aspects of the program; (4) Deciding on criteria for judging scholarly projects. Faculty are working together to assure the success and continuation of the project.

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CATEGORY: Curriculum Abstract ID: 10-186

INTEGRATING MICROBIOLOGY, IMMUNOLOGY AND INFECTIOUS DISEASES

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PURPOSE

The Paul Foster School of Medicine in El Paso, Texas is a new medical school that implements a scheme-based curriculum teaching basic scientific concepts through clinical presentations. We experimented by bringing together microbiology, immunology and infectious diseases.

METHODS

A study group consisting of faculty teaching microbiology and immunology, and infectious diseases specialists met regularly and discussed topics in microbiology and immunology that were to be presented to first year medical students. Integrated sessions were also created where in microbiology and immunology topics were covered starting with clinical case presentation followed by basic scientific concepts in microbiology and immunology and a final discussion that involved microbiology, immunology faculty and infectious diseases experts.

RESULTS

During group discussion and curriculum planning, the infectious disease specialist's expertise brought a different dimension and clinical perspective to the curriculum by influencing the direction and emphasis of the micro/immuno topics.

The integrated lecture sessions resulted in increased attendance. Rather than being presented as simple basic scientific concepts microbial causes of disease were presented in context of infectious diseases that they are causing followed by immune responses to the infection.

This approach generates a lot of interest by the students and results in a very lively discussion that touches not only on infectious diseases topics but also looks at them from public health perspective.

CONCLUSIONS

Microbiology, immunology and infectious diseases are disciplines that naturally blend and complement each other. Integrating infectious diseases expertise in teaching microbiology and immunology reinforces emphasis on clinically relevant perspective and prepares medical students for clinical learning.

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CATEGORY: Curriculum Abstract ID: 10-189

A REVIEW OF UNDERGRADUATE PUBLIC HEALTH-RELATED COURSE SYLLABI IN THAI MEDICAL SCHOOLS.

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BACKGROUND

The lack of rural or community hospital doctors in Thailand remains an ongoing challenge and is worsening despite the national policy to have more general practitioners working in these hospitals. While strategies have focused on increasing the number of doctors nationally and creating new incentive schemes for community practice, one important approach is to increase the intrinsic attraction of community medicine amongst medical students. Many public health-related courses have been introduced into the undergraduate medical curriculum to deepen understanding of community health and to inspire medical students to pursue such career options.

METHODS

We reviewed the 2009 course syllabi of 11 Thai medical schools (61.1% of all Thai medical schools), focusing on public health-related courses, credits, lectures and practice hours. Our review concentrated mainly on current public health related contents/subjects and credit taught by the Social and Preventive Medicine (PSM)/ Community Medicine (CM)/ Community Health (CH) departments of these medical schools.

RESULTS

All 11 medical schools required students to attend courses in public health commencing in 1st year through until the 6th year. The total credits in undergraduate medicine curricula ranged between 11-25, mean = 18, SD=4.9. The preclinical curriculum credit was between 3-11, mean = 6.8, SD=3.0 compared to a credit range of 3-20, mean = 12, SD=5.12 in clinical clerkship curricula. Public health teaching was offered as Family and Community Medicine in 8 medical schools, Community Medicine (6), Preventive and Social Medicine (2), Urban Community Medicine (1), Occupational Medicine (1), Primary Medical Care (1), Management in Public Health (1), Epidemiology and Biostatistics (2), Medical Professional Development (1), Doctor and Society (1), Military Medicine (1) and Medical Rural Studies (1). The proportion of practice to lecture hours in pre-clinical years ranged from 0-4.5, mean = 1.98, SD=1.4 and the proportion in clinical years was between 2-7, mean = 4.6, SD=1.73. By subgroup analysis, we found preclinical credits, including preclinical practice credits in Bangkok & similar municipalities significantly lower than regional universities ($p<0.05$).

CONCLUSIONS

A public health curricula is required in all medical schools in Thailand with varying degrees of emphasis depending on area, time and resource. These curricula are mainly developed by the Social and Preventive Medicine (PSM)/ Community Medicine (CM)/ Community Health (CH) department. The universities in regional areas tended to have more course credit especially for practice credit in preclinical years than universities located in Bangkok and similar municipalities.

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CATEGORY: Curriculum Abstract ID: 10-190

FUNDAMENTALS OF MOLECULAR MEDICINE: MEDICAL STUDENTS' PERCEPTIONS

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The Fundamentals of Molecular Medicine (FMM) course is a component of the first year summer curriculum of the Cleveland Clinic Lerner College of Medicine of Case Western Reserve University medical school. FMM is comprised of two sections: focus topic sessions and problem-solving sessions. The focus topic sessions emphasize research and clinical applications of basic science material through use of research tools, demonstrations of physician/patient interactions, and interactive seminars. The problem-solving sessions use a research based approach to acquire basic concepts in cell and molecular biology and biochemistry in an environment similar to problem-based learning.

PURPOSE

To determine if medical students' perceive that problem-solving sessions provide a format to learn basic science concepts, develop skills working in small groups, become more skilled in identifying basic science resources, and to link clinical symptoms to underlying basic science concepts.

METHODS

An electronic course evaluation was administered to first year medical students matriculating in years 2005-2009.

RESULTS

The vast majority of students agreed or strongly agreed problem-solving sessions enabled them to learn basic science concepts, develop skills working in small groups, and become more skilled in identifying basic science resources. The majority of students agreed or strongly agreed the problem-solving sessions enabled them to link clinical symptoms to underlying basic science concepts.

CONCLUSIONS

The problem-solving sessions provide a format for students to learn basic science concepts, develop small group skills, and begin the process of identifying credible basic science sources to answer clinically relevant questions.

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CATEGORY: Curriculum Abstract ID: 10-197

DEVELOPMENT OF AN INTERPROFESSIONAL EDUCATION EXPERIENCE FOR MEDICAL AND PHARMACY CURRICULA

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PURPOSE

Provide a mandatory small group, interprofessional experience (IPE) for all year 2 medical (M2) & year 3 pharmacy (P3) students. One of the key goals is to develop skills and attitudes essential for effective health care team dynamics thus developing behaviors that will promote improved patient care and safety through recognition of health care team roles.

METHODS

First, all M2 & P3 students attend an introductory session which provides an overview of the purpose and logistics of the experience. During this session they interact with their Team of two P3 + two M2. Second, each team has a standardized patient (SP) session whom they interview collaboratively, admit to hospital, determine a preliminary diagnosis, treatment, and medication plan with appropriate documentation. Third, the same team sees the "same patient" in an acute medical scenario via either human simulator or SP. Fourth, all M2 & P3 students attend a debriefing session.

RESULTS

Students complete surveys regarding health care team roles & dynamics before and after the IPE. All SP sessions are recorded for student self-evaluation and review by faculty. Students are evaluated by the SP; student generated documentation is reviewed by faculty. The logistics of this activity are complex, including: coordination of M2 & P3 schedules, appropriate case development, SP training, overseeing 60 teams (10 at a time), and review of outcome data. The initial plan included graduate nursing students, unfortunately this could not be accommodated.

CONCLUSIONS

The IPE initiates the development of interdisciplinary skills earlier in the education of these health care providers, equipping them for collaborative care in their clinical transition years as promoted by the Institute of Medicine's Health Care Professions Education Summit.

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CATEGORY: Curriculum Abstract ID: 10-200
Award Nominee

MODIFICATIONS OF BASIC SCIENCE CURRICULUM FOR IMPROVEMENT OF EDUCATIONAL OUTCOMES

Hiroko Yoshida* and Ronald J. Testa. American University of the Caribbean School of Medicine, St. Maarten, NETHERLANDS ANTILLES

PURPOSE

Curriculum is often viewed as the heart of our medical education programs and has the most direct and crucial linkage with educational outcomes. Faculty and administrators analyzed the curriculum and proposed necessary modifications in an attempt to improve the educational outcomes for our diverse learners. Using longitudinally tracking, a series of curricular innovations were executed and assessed.

METHODS

Critical changes in the Basic Science curriculum entailed the reduction of total credit hours, expansion of Introduction to Clinical Medicine (ICM) courses, the implementation of block examinations and NBME Comprehensive and Subject Examinations. The total credit hours were gradually reduced from 104 in 2003 to 89 in 2008 by amalgamating some courses and eliminating the afternoon laboratory courses with the exception of Anatomy. The short, PBL formatted ICM courses and peer tutoring sessions have replaced the eliminated laboratories. The block examinations enforced students' daily, simultaneous learning of multiple subjects. The NBME Comprehensive Examination has become mandatory, although some NBME Subject Examinations have been administered as mandatory or optional. Additionally, mandatory mock Computer-Simulated Comprehensive Examinations have been incorporated.

RESULTS

A first time pass rate for the USMLE Step 1 was 57% with a mean score of 186 ± 25 in 2003. It has gradually been improved over 6 years. In 2009 the students have achieved a 94% first time pass rate with a mean score of 214 ± 20, a 28-point increase since 2003.

CONCLUSION

In view of successful educational outcomes, curricular innovation appears a key. All institutional stakeholders carefully evaluated curricular innovations for the possible synergistic impact of any academic changes. As endemic to the process, some resistance and fear of change among faculty and students were addressed. Among all modifications we have executed, we are certain that the curricular modifications played a significant role in the sustainable improvement that we have amassed on USMLE first-time Step 1 pass rates.

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