

## Al-Azhar Experience: Innovation in Undergraduate Medical Education Program.

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## **EDITORIAL REPORT**

**Background:** Integration in medical curricula is a newly growing governmentally approved trend in Egypt by the end of 2017 and has been implemented in medical schools all over Egypt by the beginning of the academic year 2018/2019, where Al-Azhar Faculties of Medicine are adopted the new integrated program using different teaching & learning strategies.

**Work & Results:** Curriculum (Basic and Clinical phases) was outlined in terms of map, content areas, competencies & key competencies fulfilling the National Academic Reference standards (NARS) 2017.

The integrated program consists of two phases fulfilling the fifth level in Harden's Integration ladder; Phase I: Basic Science phase for two years, beginning with introductory team based term to be followed by system based for three and half terms, where problem based learning is adopted.

Eighteen horizontal and vertical integrated conventional & system-based modules (basic 80% / clinical 20%) were developed within this phase, while Twenty four horizontal and vertical integrated case based modules were designed (clinical 90% / basic 10% sciences) modules were developed in phase II for five and half terms. In addition, innovative eight professional and ten elective themes were integrated longitudinally and a project is included before graduation. Nine Islamic studies were also included as University requirements .

In phase I modules, 15 disciplines were integrated including Fundamental Structure (Anatomy & Histology), Development (Embryology), Essential Function (Physiology), Biochemical Basis (Biochemistry & Genetic), Disease Grounds (Microbiology, Parasitology & Immunology), Disease Process (Pathology), Medical Ethics & Professionalism (Soft skills, Risk Management and Patient Safety), Public Health (Epidemiology) (Research Methodology & Biostatistics), (Behavioral & Social sciences) Language (Medical Terminology & Glossary), Disease Presentation (Introduction to Clinical Skills) and Treatment Concepts (Pharmacology.(

In phase II modules, 18 clinical disciplines were integrated. These disciplines are Medico-legal Sciences (Principles of Forensic Medicine &Toxicology), Community &Occupational Medicine, Diagnostic Tools (Diagnostic Radiology & Laboratory Medicine), Ophthalmology, (ear, Nose &throat), (Dermatology, Andrology & Venereal diseases), (Gynecology &women Health), Obstetrics, Psychiatry, (Emergency Medicine &Intensive Care), (Perioperative Management, Pain therapy &Palliative Care), (Family Medicine &Geriatrics), (Pediatrics &Child Health), Internal Medicine, General Surgery ,Stepping up higher level in Harden's ladder is achieved in six modules that showed integration between Medicine, Pediatrics and surgery like Endocrinology, Nephrology &Urology, GIT, Chest, Cardiology & Cardiothoracic Surgery, Neurology &Neurosurgery, Orthopedic surgery, Rheumatology & Rehabilitation . as well as Research project.

**Conclusion:** The experience of integration between basic and clinical sciences with inclusion of professionalism and elective courses can be seen as a new innovative and applicable approach that will fit our students for practice of medicine and be an effective members of the profession.

**Take-home message:** The newly developed integrated medical program at Al-Azhar University, Faculties of Medicine is primarily promoted to act as a role model for integration.

**Keywords:** Curriculum, Integration; Planning, Basic medical sciences; Clinical medical sciences; Undergraduate medical education; Professionalism; Elective Courses.

## REFERENCES

- 1. Eisner EW. The Educational Imagination: On the Design and Evaluation of School Programs (New York, Macmillan). 1985; 22:205-9.
- Genn JM. Curriculum, environment, climate, quality and change in medical education: a unifying perspective. *Medical Teacher*. 2001; 23(4):337–44.
- Harden RM. Ten questions to ask when planning a course or curriculum. *Medical Education*. 1986; 20:356–65.
- Harden RM. In: Dent JA and Harden, RM (Eds). Planning a Curriculum. A Practical Guide for Medical Teachers. 2001;13–24.
- 5. Harden RM and Crosby JR. (2000) The good teacher is more than a lecturer: the twelve roles of the teacher, AMEE Medical Education Guide. *Medical Teacher*. 2000; 22:334–47.
- Johnston S. Teachers, and the Curriculum. As cited by Genn, JM. Curriculum, environment, climate, quality and change in medical education: a unifying perspective. *Medical Teacher*. 2001; 23(4):337–44.
- Kern DE Thomas PA, Bass EB, et al. Curriculum development for medical education: a six-step approach. *JHU Press*. 1998.
- Rogers A. Teaching Adults. Buckingham/ Philadelphia, Open University Press. 1996; 176.
- Schiro M. Curriculum for better schools, in: K.A. Noble (Ed.) The International Education Quotations Encyclopedia. *Buckingham/ Philadelphia, Open University Press.* 1978; 56.
- 10. Wragg EC. The Cubic Curriculum London and New York, Routled. 1997.

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