

# Continuous professional development and health sector governance in Egypt

Rita Maria Ferrelli<sup>1</sup>, Dolores Mattosovich<sup>2</sup>, Mervat El-Seweify<sup>2</sup> and Nabil Dowidar<sup>2</sup>

<sup>1</sup>Ufficio Relazioni Esterne, Istituto Superiore di Sanità, Rome, Italy

<sup>2</sup>Medical Research Institute, Alexandria University, Alexandria, Egypt

## Abstract

The Authors present the main activities and results of a Project financed by the Italian-Egyptian Debt Swap Agreement (IEDDS/DS) of the Italian Development Cooperation to repay public debt. The Health Governance Project operated within the Egyptian health reform paradigm and aimed at producing evidence for policy makers to direct and reorient the health sector and service management. It developed along three phases: i) preparatory training of trainers, ii) training in health governance according to modern andragogic methods, such as problem-based learning, iii) following implementation. Project strategy focused on a training of trainers method that allowed establishing a Health Governance Unit, that is successfully replicating the Health Governance Course. It established a collaborative ground in Alexandria Governorate, jointly with public and private sector stakeholders.

## Key words

- Health governance
- problem-based learning
- training of trainers
- continuous professional development

## INTRODUCTION

Problem-based learning (PBL) is a student-centered andragogic (adult learning) method, where students learn about a subject through the experience of solving an open-ended problem. PBL assumes that learning is an active, integrated, and constructive process influenced by social and contextual factors [1, 2]. PBL was developed at the McMaster University Medical School in Canada in the 1960s and represents a paradigm shift from traditional teaching and learning philosophy, which is more often lecture-based. Its application found growing diffusion with research and critical thinking being pillar in the internet era. PBL aims at supporting students develop flexible knowledge, effective problem solving skills, self-directed learning, effective collaboration skills and intrinsic motivation. Working in groups, students identify what they already know, what they need to know, and how and where to access new information that may lead to the solution of the problem. The role of the instructor (known as the facilitator in PBL) is to support participants' learning and to monitor the process. The facilitator must build students' confidence to take on the problem, and encourage them, while also stretching their understanding.

The Istituto Superiore di Sanità – ISS (National Institute of Health) of Italy claims a longstanding experience in PBL for training health professionals in health service management and governance at international and national level [3-8]. In the framework of the Italian-Egyptian Debt Swap Agreement of the Italian Development Cooperation to repay public debt

by means of investment in mutually agreed projects between donor and recipient country, a Memorandum of Understanding was signed in 2010 between the SWAP Program and the Medical Research Institute (MRI), University of Alexandria, to implement a Health Governance Project. The agreement identified the ISS as implementing partner of the initiative. The overall objective of the Project was to establish a Health Governance Unit (HGU) within the structure of the MRI, capable to operate within the health reform paradigm and to liaise with the service delivery system, qualified to conduct critical research in managerial areas as well as able to produce the evidence needed by policy makers to direct and reorient the health sector and service managers by means of essential research, technology transfer and systematic reviews. The initial activity of the Health Governance Project included the development of a PBL Course in the Health Governance for the HGU personnel.

## MATERIALS AND METHODS

Health Governance Project activities developed along three phases: preparatory, training in health governance, follow-up.

### *Preparatory phase*

A training course on PBL was designed and implemented with the purpose of transferring PBL technical and methodological skills to 9 MRI Academic Staff and health professionals, who would act as facilitators in the first Health Governance Course at HGU and

would then be coached in running the course. The course focused on the principles of andragogy (theory and practice of education of adults), active learning for professionals, PBL features and contents, planning, implementing and evaluating PBL courses, including: problem development, facilitation of planning, monitoring and solving meetings, evaluation tools of PBL (participants, tutors, organization).

### **Health Governance Course**

To select the participants that would attend the first course and be trained to constitute the HGU pool of experts, an MRI core members committee was established in 2012, criteria defined and interviews carried out. Out of 57 applications, 28 persons were interviewed and 13 candidates selected (11 with bachelor in medicine, and 2 in nursing; 9 participants hold a master degree and 4 a Ph.D. title). Out of 13 participants, 9 were MRI staff, 2 came from the Ministry of Health (MoH) and 2 from the Health Insurance Organization.

The Health Governance course was organized according to PBL scheme: three days a week, respectively for the planning, monitoring and solving meetings, with an extra day dedicated to the seminar/lecture. The course focused on developing skills in governance, project management, leadership and managing change.

Topics dealt were related to:

- Project planning and management, monitoring and evaluation,
- Strategic and leadership skills, working with different stakeholders at different levels,
- Resource management (human, material, financial),
- Communication skill, report writing, dissemination, presentation, team working,
- Self-development and continuous professional development.

And were articulated in the course in nine modules:

1. Epidemiology Module, with a 4 units structure, each unit lasting one week,
2. Qualitative research, organised in 3 units,
3. Strategic and action planning, organised in 4 units,
4. Human resource management and communication, organised in 3 units,
5. Financial resources, organised in 2 units ,
6. Risk management, organised in 2 units,
7. Surveillance of infectious diseases, organised in 2 units,
8. Evidence based medicine, organised in 2 units,
9. Quality and accreditation, organised in 2 units.

A study visit to Italy followed the course in order to familiarize participants with the Italian health system and best practices.

ISS experts supervised the PBL course, directly on the ground in Alexandria for formative supervision in modules one, two, three, four and six.

The monitoring and evaluation of the course was continuous. It dealt with implementation and with participants' performance. Formative evaluation was implemented to stimulate the progress of the participants using a post test, a facilitator feedback and modules evaluation form by participants.

At the end of each module participants were provided

with an evaluation questionnaire, addressing the following areas:

- teaching-learning method,
- the assessment and evaluation instruments,
- the learning resources,
- the time,
- the facilitators role,
- other comments.

A facilitator feedback was ensured to each participant in each module to monitor the learning process and assess participants' learning skills, as well as to improve participants' performance. The monitoring focused on participants' chairing the group, secretarial function, exchange of previous knowledge and experience, consultation of resource person/facilitator, relevance of operational recommendations, time management, selection of relevant material (at monitoring meeting), application of acquired knowledge to problem solving, areas of strength and areas for improvement.

### **FOLLOWING IMPLEMENTATION**

Once established and trained the HGU pool of experts, the HGU defined a strategic plan highlighting vision and mission of the Governance Program, jointly to the work plan of the activities to carry out. It included the replication of the Course in Health Governance, organization and implementation of specific courses in health and clinical governance and definition and implementation of applied research to managerial topics in healthcare.

To strengthen HGU members' research skills a series of five workshops on Evidence-Based Medicine (Research design, Risk assessment, Critical appraisal of diagnostic study, Critical appraisal of systematic review, Critical appraisal of therapeutic studies, Critical appraisal of clinical practice guidelines) was organized.

### **RESULTS**

The Health Governance Course took place from July 2012 to February 2013 and trained 13 health professionals in Health Governance. All of the 13 participants to the course completed it. The course was replicated by the HGU and run from January to September 2014 for 14 participants selected among 100 applicants from academic and health institutions operating in Alexandria. At the completion of the modules the students participated in research: 1) study of the causes of Caesarean section high rate in two hospitals in Alexandria; 2) factors influencing the quality of medical records documentation by medical staff in Medical Research Institute Hospital – Alexandria University. The course was replicated again in 2015 in a compact form. It started in March 2015 and was completed in May 2015. No fees were applied for the courses.

In 2015 the Health Governance Unit was established as a Unit of the Medical Research Institute. The HGU developed an articulated program of professional continuing education, encompassing institutional governance, board governance, laboratory governance and clinical governance. The HGU undertook an in-depth analysis of the Egyptian Accreditation Standards which were developed in the context of the Health reform. A HGU

accreditation team, composed by MRI and MoH specialists, conducted an assessment of the MRI Hospital. The exercise included 195 standards for infection control, 75 nursing and 155 patient care standards, 119 organization management and human resources standards, 134 environmental safety and supplies standards, and delivered improvement plans in five areas of the MRI hospital. The plans were handed over to the hospital director.

The same exercise took place in four partnering hospitals: two public hospitals, one university hospital, and one private hospital. Currently an assessment exercise has been completed in all hospitals and improvements plan have been presented to the MRI Hospital Board.

Assessment of Patients' Safety standards was carried out by HGU team. This initiative was realized in collaboration with APSA (Alexandria Patients Association). The assessment was preceded by an orientation program to the staff. Every assessment lasted 2 days, plus the drafting of the report and the feedback to the hospital concerned staff (management and quality teams).

In 2015, 198 professionals from Alexandria Hospitals (University, MoH and Private) participated in workshops, seminars, field visits and on the job coaching familiarizing with a number of methodological tools but also with assessment of quality of services in health care including Medical Laboratories. Different dimensions of clinical governance were dealt with, such as clinical effectiveness, clinical audit, risk management and data analysis. With more than 20 events organized in the year the HGU brought together professionals from different universities, Ministry of Health, private sector, from Alexandria but also from Cairo, interested in the promotion of Governance and Quality in Healthcare.

Among the many activities implemented there are: a) the HGU team working on evidence, after adopting the WHO evidence-based policy making methodology, initiated a research on Nurse Relative Shortage at MRI, with quantitative and qualitative (focus group discussions) data collection, and the results are object of a specific publication; b) developed an in house experience in Health information and partnered with the Ministry of Communication to become part of the University Hospitals Information Network while starting from 2014 a unique patient number was adopted at MRI hospital; c) in 2015 MRI hospitals professionals were trained on the WHO International Classification of Diseases, ICD-10, the classification is key to improve the hospital performance and to produce statistics that are internationally comparable. Finally a new initiative to promote safe care "Patients' Thermometer" which allows teams to measure the proportion of patients that are "harm free" was piloted at MRI hospital since October 2015.

The research team compiled also a health summary status for Alexandria and produced an updated map of the research studies carried out at MRI from 2008 to 2013. It included: 250 Master and Ph.D. thesis, and 96 published research papers. The research utilized PubMed MeSH keywords. Based on the frequency of criteria the research identified the following items:

1. systems: endocrine, digestive, haematology;
2. organs: liver, breast, blood;
3. disease: breast neoplasm, hepatitis, hepatic carcinoma.

Costing of Pressure Ulcers for prevention and treatment of high-risk patients at the Intensive Care Unit of the New Alexandria Hospital was carried out in collaboration with the Biostatistical Department of the MRI and measured incidence, prevalence and risk of pressure ulcers. The activity included also the training of nurses on Pressure Ulcers staging. The study on Costing of Pressure Ulcer is considered very impacting with ample financial and health service implication both for the health service and the patient.

## DISCUSSION

Healthcare has become a complex service that requires competent staff, teamwork, and capabilities related to effective and efficient healthcare decisions. While clinical effectiveness is the provision of care that is based on best current evidence and in accordance with patient preferences offered by staff that are competent to deliver it, at the same time it is not carpet application of best available evidence of effective and efficient decision to all patients but a tailored approach that takes into consideration other local factors such as patient values, resources, and available expertise. Clinical effectiveness is part of a wider framework known as clinical governance and should be practiced with the other elements of clinical governance such as clinical audit, clinical risk management, patient and public engagement [9]. Strategies for practicing clinical effectiveness include the use of clinical practice guidelines and their delivery through integrated care pathways [10]. Moreover, technologies for healthcare organization, diagnosis and treatment are continuously and rapidly evolving and necessitating regulation, assessment, and training programs by the relevant organizations. These elaborations have directed leaderships of healthcare systems in many countries to establish programs dedicated to the continuous development of their qualified staff, otherwise known as continuous professional development (CPD). CPD embodies both professional learning and personal growth. It incorporates much of the theory and practice of adult learning, self directed learning, reflective practice, and other models [11-13]. It also offers the possibility of embracing topics beyond those included in traditional medical education – for example, bioethics, business management, and communication skills – topics rarely included in continuing medical education programmes.

As highlighted by other Authors [14], in today's complex world, we must educate not merely for competence, but for capability (the ability to adapt to change, generate new knowledge, and continuously improve performance). Traditional education and training largely focuses on enhancing competence (knowledge, skills, and attitudes). On the contrary, capability requires feedback on performance, the challenge of unfamiliar contexts, and the use of nonlinear methods such as story telling and small group, problem based learning. Education for capability must focus on process (supporting learners to construct their own learning goals, receive feedback, reflect, and consolidate) and avoid goals with rigid and prescriptive content. All of these requirements correspond to the features of PBL. As a

matter of fact, the Health Governance Project and the training activities utilise tools to assess both the personnel performance, and the use of the knowledge and skills newly acquired, in a continuous effort to improve quality of care.

The Health Governance Project strategy focused on a training of trainers method that was key in establishing a Health Governance Unit that is successfully conducting for the third year the Health Governance Course and is becoming a reference center in Governance Training and Research in Egypt. The Health Governance Unit was established following the training and the Unit was able to plan and implement its activities thanks to the training that its members received, both elements hinting at the effectiveness of the activities carried out. The program joins the attention of quality management to the elements of governance: strategic vision, information systems, transparency, and participation of all stakeholders, clinical governance, institutional governance and accountability. The educational program is based on the Problem Based Learning method, that is currently used in many medical schools worldwide but innovative for Egypt and leads the participants through the skills of learning in an era of innovation and continuous transforming knowledge. Given the positive results, the program has been now developed in a Diploma certificate course and the curricula has been presented to the University of Alexandria and approved in December 2015 for submission to the Supreme Council of Universities of Egypt. In May 2016 the Supreme Council expressed a favourable opinion to endorse the Diploma Course in Health Governance for a total of 30 credit hours, ensuring acknowledgment and sustainability to the initiative.

## CONCLUSIONS

The HGU has established a much-appreciated collaborative ground in the Governorate of Alexandria,

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where it has been collaborating with all stakeholders of the public sector and with the private sector too and calling for space for patients participation. The HGU promotes quality healthcare through personnel training, research, practice, as well as facilitating the dialogue among different specialities, health sector institutions and experts.

The use of effective andragogic training methods, such as PBL, is one of the factors contributing to the success of a programme aiming at strengthening human resources and continuous professional development. The National Institute of Health of Italy is actively engaged in the effort of strengthening human capabilities, not only at national but also at international level.

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## Conflict of interest statement

There are no potential conflicts of interest or any financial or personal relationships with other people or organizations that could inappropriately bias conduct and findings of this study.

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