

IMPLEMENTING “CHANGE”- THE MILESTONES OF EDUCATIONAL REFORMS FROM SRI RAMACHANDRA MEDICAL COLLEGE AND RESEARCH INSTITUTE

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ABSTRACT

This article describes the milestones of educational innovations and changes that have evolved over a period of 15 (2001 - 2016) years at Sri Ramachandra Medical College and Research Institute. It is a description of the best practices adopted. The practices have been described in 5 phases a) Needs assessment for change b) Leadership role and propagation of Vision c) Planning and preparation d) Implementation and evaluation e) Externalization. As an outcome of this journey, the

medical school has been successful in implementing an innovative integrated curriculum for undergraduate medical students, evolved itself into a Nodal Centre for Faculty development, established a Centre for Health professional education, sown seeds effectively into educational research and has inculcated an organizational culture for “Change”.

Key words: Curricular reforms, Medical education reforms

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INTRODUCTION

The changing health care needs of the community is a constant challenge to Medical education, making curricular reforms inevitable. Institutions investing in curricular reforms are looking ahead of the rest and are prepared for the future. Sri Ramachandra University with its Medical and affiliated colleges, runs several courses in health sciences, adding a significant number of graduates every year to the health care community. It had established itself as a reputed educational institution in the national scene during its first decade. It then entered its second decade with the vision of pursuing excellence in areas of patient care, education and research. Several innovative projects were announced to meet this end. One such major project was to create reforms in medical education. The institution takes pride in having undertaken medical educational reforms within the frame work given by the Medical Council of India (MCI). This article describes the milestones of changes at Sri Ramachandra University over a period of 15 years.

The process is described in five phases and reflects the best practices adopted in medical education that paved the way for “Change”. The undergraduate medical course runs in three phases (pre, para and clinical) for a period of four and a half years and one year of internship. The frame work of the undergraduate medical curriculum is provided by the Medical Council of India through its regulations. Creating innovations in medical curriculum, and within this framework was a challenging task and the university had to plan and implement these changes in phased manner over a decade. These changes were

evidence based^[1,2] and happened in the following 5 phases from 2001 to 2015, using the Kern six step model which included problem identification, targeted needs assessment, defining goals and objectives, adopting innovative teaching learning strategies, implementation and evaluation.

Phase 1 recognizing the need for change

The need for a change started in 2001, when the Medical Council of India was undertaking a relook at its existing under graduate curriculum, and questioning whether it was meeting its objective of producing competent general doctors. The changing patterns of diseases and trends in health care, made medical educators to contemplate change in undergraduate medical curriculum towards producing competent physicians for the 21st century.^[3] Concerns were being raised about rigid compartmentalization of subject matter and criticism made on redundancy in curricular content. It was also pointed out that the curriculum predominantly addressed the knowledge domain. Teaching faculty within the medical colleges were also thinking similarly and voiced their apprehensions in forums and in focused group discussions. Suggestions on an integrated approach to learning became a constant remark. All of these contributed towards the need for a change in the under graduate curriculum.^[4]

The seminar conducted by the Sri Ramachandra Medical College (SRMC) with the Medical Council of India in 2001, SPRUCE, (Seminar on Progress in Reforms on Undergraduate Curriculum and Education) became a platform for the medical faculty to share their thoughts and discuss the need for curricular integration and reforms.

Phase 2 Taking the lead and propagating the vision

The need felt by the Medical Council of India, was echoed by several leaders in the medical community, and Sri Ramachandra university leadership decided to take a lead in this initiative. Perceiving the requirement for a guidance to accomplish the task, the university decided

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to seek help from Leaders in Medical education through global partnership with Harvard Medical International. The University Development Task Force, steered by leadership announced its vision and initiated discussion on planning and implementation. The Dean of Faculties took the responsibility of facilitating the process, through the Medical education unit.

Phase 3 Planning and preparing:

The university went through a phase of planning and preparation. The following steps in this phase created a strong base for implementing changes

1. External guidance from Harvard Medical international (HMI),
2. Developing an innovative curriculum within the frame work of MCI
3. Faculty development - sensitization, education and preparation of the faculty to the changing curriculum by continuous faculty development programs.

External guidance from, Harvard Medical International

Sri Ramachandra Medical College and Research Institute became associated with Harvard Medical International since 1997. HMI is a nonprofit organization launched by the Harvard Medical School in 1994 to share its tradition of excellence in medical education and Health care to institutions throughout the world. The medical school became leader in curricular innovations by introducing the problem based model of a curriculum called the "New pathway".^[5] The Faculty development and leadership programs conducted by them disseminated these innovations, making them the global leaders in Medical education. While planning for the curricular reforms, the leadership of Sri Ramachandra Medical College (SRMC) decided to use the expertise of HMI in its mission to change the curriculum.

The curriculum development initiative -SRMC

The first workshop on developing competencies conducted at SRMC along with Harvard Medical International (HMI) and Medical Council of India (MCI) resulted in a curricular blueprint. The leadership identified a group of faculty to initiate curriculum development in the Medical College. It was decided that this committee will be a dynamic one and involve faculty, across all departments, breaking silos and promoting faculty integration. The CDI-SRMC (Curriculum development initiative-Sri Ramachandra Medical College), as the committee was popularly known, was established in March 2003 as the curriculum development arm of the Medical Education Unit. A road map was drawn and it was decided to use global burden of diseases to develop a competency based curriculum. From 2003 to 2005 the CDI-SRMC meticulously worked to define competencies for Iron deficiency anemia, Head injury, Low backache, Tuberculosis, Cancer Cervix, Osteoarthritis, Coronary

artery disease, Depression, Bronchial asthma.

The Faculty Development plan

The workshop on "Competencies" conducted not only created awareness towards a competency based curriculum, but also created need for continuous faculty development as was requested by most participants of the workshop. It was decided to create a faculty development arm of the Medical education unit and conduct workshops to educate three levels of faculty the young < 3yrs, middle >3 yrs-10 yrs and top level faculty > 10 yrs of service. The level 1 annual faculty development workshop, was introduced for the new and young faculty on basic principles of teaching and learning and curriculum development, Level 2 annual Faculty development workshop, was offered to the middle level faculty which introduced them to newer concepts in medical education. Level 3 Leadership workshop, a biannual workshop was introduced for top level (leadership) faculty, with the objective of sensitizing them to concepts in leadership and preparing them to accept change.

Phase 4 Implementation and evaluation

Introducing Curricular innovations

By 2005, competencies had been defined for nine diseases as per global burden, three levels of workshops had been conducted and nearly 200 faculty had been educated in the process. The Medical education unit decided to implement the developed modules. Unfortunately, the faculty stuck to the dogma of contents without focusing on the process. This created controversy that impeded implementation. For some time the Medical education unit and the curriculum committee faced a setback. While contemplating on how to introduce innovations and the modules, PRODEV, a professional development course was conceived for the undergraduate students.^[6] PRODEV teaches students about doctor-patient relationship, empathy, medical laws, ethics, alternative medicine etc. PRODEV was a formal module to teach the informal curriculum. The contents being unfamiliar to most faculty, they requested a formal training and orientation.^[7] The Medical education unit seized this opportunity to introduce PRODEV as a hybrid problem based model. PRODEV enabled faculty to understand the curricular process and innovative learning methodology. The PRODEV feedback clearly indicated the desire of faculty to teach the regular curriculum in the same way. The students were also inspired by PRODEV learning methodology and expressed their desire to learn similarly. Encouraged by the success of PRODEV, the Medical education unit implemented a sample module of coronary artery disease for the first MBBS students as a pilot and it proved to be extremely successful. The students were highly motivated by the module and through their feedback indicated their desire to learn the first year curriculum in the same way. This stimulated the first phase faculty to regroup and integrate with others across all three phases and develop an integrated curriculum for phase-1. The curriculum was implemented for the first MBBS students

in 2006. The pre-clinical curriculum included five organ system blocks, experiential learning, case studies, problem solving sessions, small group discussions, clinical integration sessions and large group case studies. Organ system blocks were organized to integrate horizontally structure and function and vertically through anchoring clinical cases. Continuous and comprehensive assessment of the students was also introduced.

By the end of one year, phase 1 curriculum feedback was also completed. Meanwhile a module of coronary artery disease was introduced for phase 2 students as a sample and phase 2 integrated curriculum was introduced in 2007. The students who were already familiar with the new system in the first year adapted more easily in phase 2. By the end of 2008 there came to exist a completely integrated phase 1 and phase 2 curriculum. In addition to content integration entire pre, para-clinical and most of the clinical faculty were successfully integrated as evidenced by their tireless participation and contributions in the curriculum committee.^[8] A formal orientation program at the beginning of each phase oriented the students to the change.

In 2009 January, integration in the clinical curriculum in the form of problem based learning was introduced to phase 3 students. Simultaneously, the Medical education unit took up the task of developing the clinical skills and training in skills lab which was successfully implemented in 2010. Disease based integrated symposia was introduced for the Phase 3 students. The institution also invested in a huge infrastructural expansion and modification to meet the changing needs of the learning environment.

Formalization of Faculty Development Programs

The university by 2004 had three levels of faculty development workshops that were continuously preparing the faculty to the changing curriculum.^[9] Workshops themes on innovative teaching and learning methods, problem based learning, integrated assessment, and evaluations were chosen to match the needs of the curriculum. These workshops were also successful in creating a group of middle level faculty who could play the role of facilitators and resource persons for these workshops. The workshops became the platform for networking, communicating, sharing and disseminating the information the impact of faculty development workshops was assessed by student evaluations of curriculum and teachers.

Phase 5 Externalization

The University initiatives were supported and guided by Medical Council of India and the Harvard Medical International. This journey, in curricular innovations was substantial enough for the visibility of the University. The Platinum Jubilee celebration of the Medical Council of India 2008-2009, provided the platform to externalize the curriculum and faculty development initiatives. As an outcome, it became recognized by the Medical Council of India, as a REGIONAL Centre for faculty training

bringing 32 Medical colleges in South India under it for training faculty in Basic Medical education technologies. This has helped to formally externalize the curricular reforms and propagate nationally. Our faculty have been to other institutions as MCI observers of their Faculty development programs.

Meanwhile the Medical Council rolled out its Vision 2015 document, a proposal that aims at producing “Indian Medical Graduates”.^[10,11] and development of competency based curriculum. Several of our faculty were a part of this development process at the Medical Council.

The University has been elevated as a Nodal Centre for MCI Advance workshop since Aug 2010. The university in its capacity as Regional and Nodal center has so far trained nearly 2600 faculty. Recently the Medical Council of India has recommended upgradation of the Nodal center into Department of Education that can offer courses in Medical Education.

Encouraged by the enormous success of the Medical Education Unit, the University has established the Dental Education Unit in 2009, the Allied Science Education Unit, the Nursing Education Unit and Pharmacy Education Unit in 2010, each with the structure and function similar to MEU. A post of Dean Education has been created in 2009 and established Sri Ramachandra Centre for Health Professional Education in Nov 2011 bringing all these educational activities under one banner. Another collateral effect of this initiative is motivation of a faculty to pursue fellowships in Medical education and initiate research. The University has also succeeded in establishing a wide educational network nationally and globally.

IMPACT

To conclude, a) the traditional undergraduate medical curriculum has been transformed into innovative integrated curriculum. b) The institution has evolved into a Nodal center of MCI for conducting Basic and Advance workshops on Medical Education. c) It has established Centre for Health Profession Education d) faculty are serving as resource persons for conducting development programs and are the brand ambassadors for these reforms. d) Some have pursued their Fellowship in Medical education. e) It has kindled an interest in educational research and to take up PhD program. Every stage of curricular reforms from vision to implementation is a mark of extraordinary leadership which are the key factors for success.^[12] Currently faculty are ready to explore instructional innovations and are willing to anchor newer approaches. “Change” is now a culture in the organization.

FUTURE DIRECTION

The institution is now moving forward towards a) establishing a full-fledged department of education to offer Diploma/Degree courses in Medical education. b) Evolving into a Centre of Excellence in Health Care Professional Education c) collaborating with medical education communities nationally and globally.

Table-1: The best practices adopted and the milestones of the University	
Best practices Adopted	The milestones of the University (Outcome)
Needs assessment for curricular change	Feed- back expressed by faculty in Forums 2000
	SPRUCE 2001 (Seminar on progress in reforms in Undergraduate Curriculum and education) in association with Medical Council of India
Leadership and Propagation of vision	Dean of Faculties taking lead
	University task force created 2003
Planning and preparation	External guidance from Harvard Medical international 2000
	Curriculum development initiative to define competencies for global burden of diseases 2003 to 2006
Faculty development in Tandem with curricular development	Faculty sensitization through need based workshops in association with Harvard Medical International and MCI 2003-2009 at 3 levels Level 1 Basic – Junior Faculty , Level 2 Advanced -Middle level Faculty Level 3 Leadership programs for Senior level Faculty
	Leadership programs in association with Harvard Medical International and MCI 2003-2009
Implementation and evaluation	Introduction of PRODEV for Undergraduates 2005
	Pilot module of coronary artery disease for Phase 1 2006
	Pre- Clinical integrated curriculum in 5 organ system blocks 2006
	Para-Clinical integrated Curriculum in 7 organs system blocks 2007
	Disease based modules and clinical skills lab 2008
	Curricular Feed -back and modifications 2006-date
Propagation of Practice	Student performance assessment 2006 to date
	Establishment of Dental, Pharmacy and Allied Health sciences Education Units
	Formalizing Faculty development and Recognition as regional Centre for MCI MET workshops 2009
	Recognized as Nodal Centre for MCI Advanced workshop in Medical education 2010 to date
	Establishment of Centre for Health Professional education 2013 that oversees the Education units of all the constituent colleges
	Faculty serving as expert in curriculum and faculty development committees
Research Culture	Extensive Networking Nationally and Globally
	Faculty encouraged for Fellowships in Medical education (FAIMER), Degree/Diploma
	Faculty motivated to pursue PhD
	Emergence of publications in Medical education

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