

**Editorial****Undergraduate training in psychiatry in a developing country – experience in establishing a new curriculum**

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The paper describes the process of developing an undergraduate psychiatry and behavioural sciences curriculum in a new medical school, the Faculty of Medical Sciences of the University of Sri Jayewardenepura, Sri Lanka (FMS/USJP). The curriculum was built primarily around the institutional objectives of the parent faculty. Consultation with the other medical schools of the country and with the medical schools in Malaysia, reference to documented global requirements, adoption of a spiral model, feedback from local psychiatrists, and our own knowledge and experience of the local scene, influenced the final product. Comparison is also made of the new curriculum with those of two older faculties, which adopt somewhat different models and strategies. Five batches of students have completed the program and their feedback has also helped in fine-tuning of the program.

**Key Words:** "Curriculum" "Psychiatry"**Introduction**

The word 'curriculum' was first introduced in the University of Glasgow to indicate a formal course of study<sup>1</sup>. It basically consists of goals and learning outcomes, a time frame and a schedule, teaching-learning methods, assessments, resources and course evaluation.

The curriculum of a medical school in a developing country needs to focus on special issues relevant to that country. Therefore while the curriculum must incorporate global minimum essential requirements

formulated by the Institute for International Medical Education<sup>2</sup>, and also make reference to best practice in ideal settings, it must also emphasize the training requirements for the practice of medicine in the local context, an important aspect of which is the constraints of limited resources, both material and man power.

The FMS/USJP is the youngest of the six medical faculties of Sri Lanka. It was established in 1993 and the 11th batch was enrolled in 2001, i.e. in the ninth year of its existence. The annual intake is approximately 150 students<sup>3</sup>.

In FMS/USJP, the responsibility for designing the curriculum for the various disciplines rested with the relevant departments. This had the advantage of permitting each department to highlight the local influences that played a role in the medical practice: a curriculum with special features where the understanding of specific issues is only possible at a local level.

The department of psychiatry in preparing its curriculum took into consideration the high prevalence of psychiatric disorders and mental health problems in the community<sup>4</sup>. These included suicide, alcohol and other drug abuse, anxiety disorders and violence<sup>4</sup>. With respect to availability of resources it was noted that the department of health employed a total of 27 psychiatrists to serve the population countrywide and that these psychiatrists were based in units in and around major cities. It follows then that away from city centers, access to specialized psychiatric services are very limited and it is likely that the situation will not improve greatly in the foreseeable future. Therefore, it is necessary that all students be trained to accept greater responsibility for care of psychiatric patients than that practiced in more affluent countries.

This paper describes our experience in developing the curriculum for psychiatry at the FMS/USJP and compares it to two of the established medical schools in Sri Lanka.

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## Method

We made a study of the curricula of the older medical faculties in Sri Lanka and also reviewed the recent literature on curricular development. The principal author has had experience in three of the five faculties – as a medical student, a postgraduate trainee and as a trained psychiatrist. A special visit was made to the University of Peradeniya and only the University of Jaffna was difficult to access.

A draft curriculum was designed in conformity with the institutional objectives of the Faculty, to which the principal author had contributed. It was circulated to all the psychiatrists practicing in the government sector in 1996. Further modifications were made on the basis of the feedback received. The commencement of Behavioural Sciences at the pre clinical level and extending clinicals to the final year received much support. Later following the study of the integrated curricula of the University Sains Malaysia and University of Malaya we were able to structure the curriculum to more integrated teaching and emphasized on a community oriented approach<sup>5</sup>.

The approval of the curriculum by the University Senate was granted in 1997. Currently involved in the training of it's 11th batch of students, the faculty is still employing this curriculum, with only minor

changes being introduced in the nine years after its use. The curriculum is under on-going review and feed back from the graduates who completed the program has been of much value.

The curriculum was also compared with that of two established medical schools in the country. The medical schools of Ruhuna and Colombo were chosen to exemplify two different types of curricula. The department of Psychiatry of the University of Ruhuna has a traditional curriculum and the department of Psychological Medicine of the University of Colombo has an integrated approach. The comparison of the curricula was made by sending a prepared format to the heads of departments requesting them to complete it. Further the printed guidelines and information sheets which are given to students at the two faculties were also examined.

## Results

### Objectives

As mentioned earlier, the institutional objectives were the foundation for deriving objectives for undergraduate training in psychiatry<sup>6</sup>. The institutional objectives of FMS/USJP and the departmental objectives are described alongside to facilitate comparison. (Table 1).

**Table 1. Institutional objectives and objectives of the department of psychiatry at FMS/USJP**

<i>Institutional objectives</i>	<i>Objectives of undergraduate training in psychiatry</i>
1. Develop and apply the attributes and personal characteristics necessary for a productive professional relationship.	1. Develop and apply the attributes and personal characteristics necessary for a productive professional relationship.
2. Apply basic scientific knowledge in a wide range of practice situations.	2. Apply basic scientific knowledge of psychology, sociology and psychiatric phenomenology in a wide range of practice situations.
3. Diagnose and rationally manage a defined range of health problems in Sri Lanka.	3. Diagnose and rationally manage a defined range of psychiatric problems in Sri Lanka.
4. Communicate effectively.	4. Learn communication skills, counseling skills and apply them in practical situations.
5. Comprehend and apply ethical values associated with professional practice and conduct.	5. Learn ethical values related to psychiatry and apply them in practical situations eg: privacy, confidentiality, informed consent.

<ol style="list-style-type: none"> <li>6. Apply the principles and practice of medicine in a community or population context.</li> <li>7. Contribute to the health system of the country as a primary care physician.</li> <li>8. Demonstrate ability to lead, guide and co-ordinate the work of others.</li> <li>9. Evaluate his own performance and seek assistance where necessary</li> <li>10. Keep abreast of advancing medical knowledge, contribute to new knowledge by research and disseminate knowledge to others.</li> </ol>	<ol style="list-style-type: none"> <li>6. Promotion of mental health and prevention of mental illnesses in a community and population context.</li> <li>7. Contribute to primary health care by providing comprehensive and personalized care in relation to mental health.</li> <li>8. Learn to work as a member and a leader of a team.</li> </ol>
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### *Course design and comparison*

The training course in psychiatry and behavioural sciences is divided into three phases. It has several stages and for each stage core knowledge, skills and attitudes are identified. The knowledge, skills and attitudes at an earlier stage are used to acquire those of the next stage. This is in accordance with the spiral model established at the University of Dundee<sup>7</sup>. The components and features of each phase in the current curriculum are given in Table 2. Table 3 gives the results of the comparison made with the two other faculties.

### **Discussion**

#### *Objectives*

In a discipline-based curriculum each discipline requires to conform to the institutions' overall objectives. The institutional objectives were basically similar in the three faculties but each employed a different strategy; Colombo an integrated approach, Ruhuna a traditional one, and FMS/USJP traditional with some integration.

The course content in the curriculum of the Department of Psychiatry of FMS/USJP was constructed on the spiral model. The spiral model of the curriculum runs in three interlocking phases. As the student progresses to each new level in the spiral, new learning is introduced that links back directly to learning from the previous phase. The students are encouraged to build and elaborate on the knowledge, skills and attitudes that they have already acquired and progress towards new learning outcomes<sup>7,8,9</sup>.

USJP was the first university in the country where the spiral model has been used explicitly in the psychiatry curriculum. The curriculum has three phases. The behavioural sciences component concentrates on understanding normal psychological phenomena and concepts of sociology. It creates a climate for empathy, introduces communication skills and a holistic attitude of care. The second phase builds on the first and gives more formal training in communication skills, understanding of abnormal mental processes and behaviour. Common psychiatric disorders and modes of treatment are also introduced. The latest development has been the addition of clinical training at this stage. This was done at the suggestion of all batches that graduated from the faculty. The third phase includes further clinical training, ethics and medico-legal issues, and consolidation of all previous learning.

The teaching learning methods are also introduced in a systematic manner to promote interaction between students at an early stage. Small group discussions were introduced for the behavioural sciences, and were held in a non-threatening environment. This received positive student feedback indicating students' preference for active learning in behavioural sciences<sup>10</sup>. Though the other activities in early training are more teacher centered, much effort is taken to encourage student participation. The first ever attempt of the faculty to integrate was through the family attachment programme. Departments of Community Medicine, Family Medicine and Paediatrics were involved in this activity, which is still functioning well despite many logistical problems<sup>6</sup>.

Table 2. Curriculum in psychiatry and behavioural sciences at the Faculty of Medical Sciences, University of Sri Jayewardenapura in 2002

		PHASE I (1 <sup>st</sup> & 2 <sup>nd</sup> years)	PHASE II (3 <sup>rd</sup> & 4 <sup>th</sup> years)	PHASE III (final year)
<b>Objectives</b>	<b>Knowledge</b>	<ul style="list-style-type: none"> <li>- Basics of psychology, social sciences, human life cycle and concepts of health</li> <li>- Difference in health, disease, illness, psychosocial aspects and range of attitudes in relation to illness</li> <li>- stress</li> </ul>	<ul style="list-style-type: none"> <li>- Introduction, classification, aetiology, clinical features, diagnosis and treatment of common psychiatric syndromes</li> <li>Basics of specialized areas in psychiatry</li> </ul>	<ul style="list-style-type: none"> <li>- clinical experience in common psychiatric disorders</li> <li>- psychiatric emergencies</li> <li>- promotion of positive health</li> <li>- ethics, legal, psychosocial issues and rehabilitation</li> </ul>
	<b>Skills</b>	<ul style="list-style-type: none"> <li>- ability to empathize</li> <li>- communication skills</li> </ul>	<ul style="list-style-type: none"> <li>- Diagnostic skills: history and mental state examination</li> <li>- Communication skills</li> <li>- Simple treatment methods</li> </ul>	<ul style="list-style-type: none"> <li>- Consolidate diagnostic and therapeutic skills</li> <li>Leadership and teamwork</li> </ul>
	<b>Attitude</b>	<ul style="list-style-type: none"> <li>- Develop a caring attitude</li> <li>- Holistic approach of care</li> </ul>	<ul style="list-style-type: none"> <li>- Strengthening caring attitude</li> </ul>	<ul style="list-style-type: none"> <li>- Dealing with conflicting attitudes and strengthening a caring attitude</li> </ul>
<b>Course contents</b>		Behavioural sciences	Communication skills & Psychiatry	Clinical training
<b>Time allocation</b>		4 terms: 40 hours of classroom sessions, homework assignments	4 weeks in clinical psychiatry 50 hours classroom sessions (including seminars)	2 weeks in clinical psychiatry 24 hours classroom sessions
<b>Teaching/learning methods</b>		Lectures – psychology, sociology and mental health Project work – home area project Small group discussions	Lectures Workshops and video tapes Family attachment programme Seminars	<ul style="list-style-type: none"> <li>- Clinical training – case presentations, group/panel discussions, debates/seminar</li> <li>- Community training and tutorials</li> </ul>
<b>Resource utilization</b>		Staff of the department	Staff of the department, other departments and extended faculty Clinical – Colombo South Teaching Hospital, Mental Hospital Angoda Community – Sahanaya, Melmadura & Sumithraya, Dayamina, Rehabilitation Centre for Communication Impaired and Women-in-need (WIN)	
<b>Assessment</b>	<b>Continuous</b>	3 OSCE stations in behavioural sciences and 2 in communication skills		End of appointment – 5%
	<b>Final</b>	5% SEQ in medicine paper + 5% viva voce + 5% end of appointment = 15% from medicine paper Separate paper for Psychiatry and Family Medicine – 65% for Psychiatry is accepted by the University Senate		

**Table 3. Comparison of the undergraduate training in psychiatry in three universities in Sri Lanka**

		<b>USJP</b>	<b>New Integrated (Colombo)</b>	<b>Traditional (Galle)</b>
<b>Objectives</b>	<b>Knowledge</b>	Promotion of mental health Common psychiatric syndromes & their management Prevention of mental illnesses	Similar objectives covered in Mental Health Module (MHM) and Behavioural Sciences Stream (BSS)	Similar objectives covered in psychiatric curriculum
	<b>Skills</b>	Diagnostic and management skills Communication skills Leadership and teamwork		
	<b>Attitude</b>	Holistic approach in care & compassionate attitude		
<b>Course contents</b>		Behavioural Sciences (BS)  Psychiatry (theory) Clinical training in psychiatry Community Family Attachment Programme (integrated)	Behavioural Sciences Stream  Mental Health Module Clinical Attachment Community Mental Health Module	Behavioural science in physiology and community medicine Psychiatry theory Clinical training in psychiatry
<b>Time allocation</b>		BS - 40 hours ( 4 terms) Psychiatry lectures – 35 hours Tutorials - 24 hours Communication skills & clinical skills module - 8 hours (for Psychiatry) Family attachment programme Clinical training - 4 weeks in 3 <sup>rd</sup> & 4 <sup>th</sup> years + 2 weeks in final year	BSS - 240 hours (13 terms) Mental Health Module - 36 hours  Clinical Training - 4 weeks in 4 <sup>th</sup> year and 4 weeks in the final year	Psychiatry lectures 24 hours Tutorials - 03 hours  Clinical training 4 weeks in 3 <sup>rd</sup> & 4 <sup>th</sup> years (2 weeks with university teachers and 2 weeks at hospital setting)
<b>Teaching/learning methods</b>		Lectures Small group discussions Workshops/Seminars/drama/art Video presentations/roleplay Community work Ward classes, case presentations	BSS - lectures, small group discussions, seminars, debates MHM - lectures, PBLs, films, posters Community work Ward classes, case presentations	Lectures Small group discussions Seminars, Psychodramas Case presentations Community work Ward classes

Table 3 (contd.)

<b>Resource utilization</b>		Staff of the Department, extended faculty Clinical - THCS, MH Angoda Community - Sahanaya, Melmadura & Sumithrayo, WIN, Dayamina, Rehabilitation Centre for Communication Impaired	Staff of the Department, extended faculty Clinical - NHSL, MH Angoda Community - Sahanaya, Melmadura & Sumithrayo, Home visits, Child Welfare Clinics, HelpAge	Staff of the Department, extended faculty Clinical - TH Karapitya, Galle: Psychiatric unit Community - medium stay unit at Unawatuna Rehabilitation unit of the National Drug Control Board
<b>Assessment</b>	<b>Continuous/end course</b>	Both	Both	End of course
	<b>Method/s</b>	OSCE, viva, case presentations Written - SEQ	BSS - SEQ MHM - MCQ (end of module) Clinical - case presentation + final year theory paper	OSCE written papers – essay MCQ
	<b>Contribution to finals</b>	15 marks in the Medicine paper divided as follows: Clinical appointment - 05 2 SEQ in medicine written paper - 05 Viva voce in psychiatry - 05	BSS - 10% or total final mark MHM 17% of total from Applied Sciences Stream (one of 17 modules) Clinical - continuous assessment and case presentation at the final year appointment - 50% + theory paper as a separate final year subject - 50% One of the 5 subjects in final assessment = 25%	Two questions out of 10 in medicine essay paper 5 MCQ out of 60 in medicine MCQ paper, OSCE part of medicine OSCE
<b>Limitations</b>	Inadequate time allocation/ logistics and staff Inadequate contribution of marks for the final assessment Lack of resources at the teaching hospital – separate inpatient unit	—	Inadequate time allocation	

Comparison with the other faculties also illustrates considerable similarity in the overall content. Colombo has incorporated the new integrated approach more towards the SPICES end of the curriculum model described by Harden et al<sup>11,12</sup>. There the course content in psychiatry includes the behavioural sciences stream flowing throughout the five years, the mental health module and clinical training which includes community mental health. A traditional approach is employed at Ruhuna.

#### *Time allocation*

The major discrepancy between faculties is in allocation of time. Colombo has allocated 240 hours for the Behavioural Sciences Stream allowing a substantial proportion for student centered activities. Total time allocation for classroom teaching is maximum in Colombo (276 hours) and minimal in Ruhuna (27 hours). FMS/USJP adopted an in-between position (107 hours). Clinical training is eight weeks at Colombo, four weeks at Ruhuna and six weeks at FMS/USJP.

#### *Teaching/learning methods*

A variety of teaching-learning methods and styles are used in all three faculties. These include lectures, small group discussions, seminars, workshops, community work, ward classes and clinical clerkship. Problem based learning is used in Colombo and USJP. Fixed learning modules are being used only in Colombo. By the use of different teaching learning methods, the students are exposed to familiar and unfamiliar ways of learning. This is said to provide both comfort and tension during the process, ultimately giving the learner multiple ways to excel, encouraging adaptability and life long learning<sup>13</sup>. FMS/USJP has experienced much difficulty in providing for small group discussions because of limitations in space and personnel.

#### *Resource utilization*

In all three faculties, staff of the department and the extended faculty is involved in teaching activities. At USJP, the inclusion of a lecturer in psychiatric social work in the academic staff was an important development. It is of increasing importance to future graduates, specially in a developing country where welfare and social work involvement is minimal. This enables students to be aware of social needs and to be able to provide holistic care.

USJP also has the advantage of being centrally located in relation to a number of Community Mental

Health Centres. Accessing of this resource freely is a special feature of the training program.

The lack of an in patient psychiatric unit at the teaching hospital Colombo South is a major limiting factor. Psychiatric patients are admitted to the general wards of the teaching hospital and this limits the types of illnesses that can be treated. The more disturbed patients are referred to the mental hospital at Angoda. Students have exposure to these types of illnesses during their brief attachment to the Mental hospital. A psychiatric unit is currently under construction at the teaching hospital and very soon this limitation will be overcome.

Nevertheless, this has brought about better integration with the medical wards and of community services. Most patients would thus be managed in their homes and follow up care provided through clinics. Lack of resources at the teaching hospital is compensated by the co-operation extended by staff at the Mental Hospital, Angoda, and the Community Mental Health Centers.

#### *Assessment*

In FMS/USJP and in Colombo, both continuous and end of course assessments are carried out whereas in Ruhuna only the end of course assessment is used.

Contribution of marks is another domain where a discrepancy exists in the three faculties. In Colombo, students sit for a separate paper in psychiatry at the final MBBS examination. The assessment in psychiatry at Ruhuna is limited to two SEQs out of 10 and 5 MCQs out of 60 in the medicine paper.

In FMS/USJP, the allocation of marks was 15% in the medicine paper. University Senate approval was received in May 2002 for a separate paper in psychiatry and family medicine where 65% of the marks is awarded for psychiatry. This amounts to 13% of total marks at the final MBBS examination. Though not ideal, this is a step forward, since the allocation of marks would obviously influence the motivation for students to learn.

#### *Limitations*

At FMS/USJP, the major limitation is insufficient time allocation. This is also seen in the traditional curriculum. The new integrated curriculum at Colombo has no such limitation. FMS/USJP also has serious limitations in resources at its teaching hospital. This has been partly compensated for by drawing resources

of the region and by the cooperation of the extended faculty. Nonetheless, there remains a shortage of trained staff to supervise all aspects of the program and there is also a shortage of class room space.

In conclusion we state that if a systematic approach is adopted, a comprehensive curriculum could be offered for optimal training in psychiatry, despite inevitable limitations.

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