

FORMULATING SUITABLE UNDERGRADUATE ADOLESCENT MEDICINE CURRICULUM IN PAEDIATRIC POSTINGS WITH UNIQUE INCLUSION OF SIMULATED PATIENTS AND REAL PATIENTS: NDUM EXPERIENCE

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ABSTRACT

A suitable curriculum for Adolescent Medicine in undergraduate Paediatric posting is necessary because the Faculty of Medicine and Defence Health (FMDH) is committed to its inclusion and the students needed to be trained on how to communicate with Adolescents in some clinical practices, after their graduation. It had been proposed in 2013 and implemented over the past 4 years at the FMDH, National Defence University of Malaysia (NDUM). The unique inclusion of simulated patients in Year 3 had proved to be educationally beneficial (Aye S & Mohd Noor MA 2015). Subsequent inclusion of adolescent real patients with students as observers, in year 5, at the Adolescent Health Clinic at an affiliated teaching hospital was found to be satisfactory. Limitations & challenges met were remedied as best as possible. However, the feasibility of the Year 5 students to make the psychosocial assessment at first hand needs to be explored, in order that the students could put to practice their skills acquired in year 3, with simulated patients, to real patients at the adolescent health clinics at the adolescent health clinics

Keywords: *Paediatrics, undergraduate curriculum, Simulated patients, Adolescent real patients.*

1. INTRODUCTION

It had all begun in May 2013 at Port Dickson, Malaysia at the Curriculum Task Workshop. A Curriculum review of preclinical years and formulation of curriculum of clinical years had been done.

A Wiseman approach had been employed and the respective Heads of Unit had prepared, presented for discussion and adoption of the respective curriculums by most of the stakeholders including the Top management, Dean, Deputy Dean, Professors and Heads of Units of the Faculty of Medicine and Defence Health, National Defence University of Malaysia. The curriculum for the Paediatric and Adolescent Medicine postings in Year 3 and Paediatric and Neonatology postings in Year 5 had been formulated, adopted, implemented since 9th September 2013 for past 4 academic sessions for Year 3 and 2 academic sessions for Year 5 and at time of writing is in the 5th and 3rd academic sessions respectively. The inclusion of the Adolescent Medicine component in undergraduate Paediatrics posting is needed because the adolescents tend to not open up to care providers whenever they encounter problems. It needs an experienced communicator to make a Psychosocial assessment based on HEADSSSS acronym.

However, the *students need* to be shown how HEADSSS consultation is done and they should also do it with simulated patients. A Task Workshop: Curriculum formulation for Year 5 was held in 2015, before the commencement of the first Year 5 clinical postings in Academic session 2015/2016. Paediatrics postings, had been managed by one full time Professor/HOD with 4 adjunct lecturers from the teaching hospitals from inception until August 2016 when another full time Professor had been recruited. Over the years, the curriculum had been enhanced and augmented with few minor modifications, following feedbacks from students and the end of Paediatrics posting examination results, through discussions with the Dean and Deputy Dean (Academic) of FMDH, NDUM and also discussions at Task Workshop: review of the Medical Curriculum, 2017 held on 06-08 February 2017.

2. Curriculum formulation

The curriculum of the Adolescent Medicine component in the undergraduate Paediatrics posting of 8 weeks' duration, per rotation, in Year 3 and Year 5 was formulated as follows:

2.1 Objectives of the Adolescent Medicine Module

2.1.1. At the end of the Year 3 posting student should be able to:

- i. define / understand terminology of Adolescents and need for inclusion of the Adolescent Medicine module in the Paediatrics posting.
- ii. communicate effectively with the Adolescents through interview using the HEADSSSSS acronym at peer pair sessions and the Adolescent Health Clinic (with simulated patients).
- iii. understand / be familiar with the common Adolescent Health issues (selected core topics) in line with the 5 priority Areas in the Malaysian Adolescent Health plan.
- iv.. write and discuss on one Adolescent health issue (to create own scenarios) as a Case Write up (template given as Appendix 5 in course guide).

2.1.2. At the end of the Year 5 posting & by the end of the Adolescent Health clinic sessions, students should be able to demonstrate ability to:

- understand and write a report on the experiences gained through observations of the Paediatrician conducting an interview with an adolescent patient attending the Adolescent health clinics at affiliated teaching hospital.

2.2 Contents & Teaching Learning Activities (TLAs) of the Adolescent Medicine Module

2.2.1. In Year 3, during the 15 hours out of the 8 weeks posting to Paediatrics, the curriculum contents and Teaching learning activities for Adolescent Medicine, consist of following Teaching Learning Activities:

- a) an Introductory Lecture on Psychosocial assessment using HEADSSSSS acronym;
- b) a series of Adolescent Medicine lectures & video clips, on issues adolescents frequently encounter, selected topics, based on National Adolescent Health Policy, Malaysian Ministry of Health;
- c) peer pair sessions, whereby a pair of students conduct a role play with one as the "simulated doctor" and other as the simulated patient, using the HEADSSSS assessment framework with own choice of scenarios/issues;
- d) The Simulated Patients (SP) program whereby each of the students posted to Paediatrics interviewed the simulated patients (SP) at the simulated Adolescent Health Clinic setting at the Department of Paediatrics and Adolescent Medicine. A core group of 10 adolescents, who are active in Drama groups had been recruited and trained by PSSA (first author) at workshop held prior to each and every Interview session. After each session, held four times in one academic calendar year, both the SP and the students (doctor) have to fill in the feedback forms. Also both the SP and

Students are required to give verbal feedback on each of their respective sessions and these are video-taped. The feedback forms are also filled in by the Faculty members involved in SP program.

2.2.2. In Year 5, only 8 hours out of the 8 weeks posting to Paediatrics & Neonatology had been allocated for Adolescent Teaching Learning activities which are as follows.

- a) Each of the students, in groups of 3 only per clinic session, in rotation, were posted to the Adolescent Health clinics at the affiliated teaching hospital, whereby they observe the Consultant Paediatrician making the psychosocial assessments on adolescent patients.
- b) The role of the students was as observers.
- c) At the end of session, the students are required to fill in the feedback forms and the feedbacks are taken and analysed.

2.3 Syllabus:

2.3.1. CORE TOPICS are given in respective student study guide.

1. Physical- Acne, Obesity, Scars, Body image.
 2. Mental- ADHD, Depression; Suicide attempt; Child abuse;
 3. Sex and Reproductive Teen pregnancy
 4. Nutritional- Anorexia nervosa; Bulimia
 6. Risky behaviour- Gangsterism; Mat Rampit; Substance abuse; Giggilo;
 7. Miscellaneous- Bully victim; Digital age; Vape; Internet Addiction; LGBT gender identity;
 8. Chronic illness (Co morbidities)-Diabetes Mellitus; Asthma; Thalassaemia;
- 2.3.2. NICE TO KNOW TOPICS also given in respective student study guide.

2.4. Assessment on Adolescent Medicine

2.4.1. In Year 3, assessment is in form of Formative (case write up submission) and Summative at End of Posting examination including theoretical questions and OSCE conducted after each end of posting.

2.4.2. In Year 5, similar to Year 3, the Formative assessment consists of theoretical Qs and OSCE and grading the Report on cases seen and included in Portfolio submission.

2.5 Outcome measures

The results of the End of Paediatric Posting Examination in all rotational group per academic sessions is as shown in Table 1

2.6 Human Resource

The Human Resources in each Unit are very important for the implementation, monitoring and supervision of the posting teaching learning activities. Only one full time lecturer (HOD) had been anchor over the initial years together with four other adjunct lecturers, until another full time lecturer had been recruited and appointed in September 2016. This is as seen in detail in Table 2.

Table 1. Results of Year 3 and Year 5 End of Paediatric posting examinations in the respective academic sessions

YEAR	ACADEMIC SESSION	NO OF STU	Grades A/A-	Grades B/B-	Grades C/C+	Grades D	Remarks % pass
Year 3	2013-2014	44	19(43%)	22(50%)	3(7%)	-	100%
	2014-2015	62	15(24%)	36(58%)	11(18%)	-	100%
	2015-2016	42	4(10%)	24(57%)	14(33%)	-	100%
	2016-2017	43	3(6%)	20(47%)	20(47%)	-	100%
Year 5	2015-2016	35	1(3%)	20(57%)	14(40%)	-	100%
	2016-2017	59	2(3%)	32(54%)	25(42%)	-	100%

TABLE 2. Human resource at Paediatric & Adolescent Medicine unit, FMDH, NDUM

PERIOD /DATE S	FULL TIME		HATTM Part time	SEL Part time	Others	Year 3 students	Year 5 students	Remarks
Sept2013	1(Professor & HOD)	Nil.	1	Nil	Nil	√	Nil	
Sept 2014	1(Professor & HOD)	Nil.	1	Nil	Nil	√	Nil	
Jan 2015*	1(Professor & HOD)	Nil.	1	2 Adjunct	1 Invited LEC	√	Nil	3 part time lecturers appointed
Sept 2015	1(Professor & HOD)	Nil.	Nil.	2 Adjunct	1 Invited LEC	√	√	Training of Lt Muda Dr by Col R
Sept 2016	1(Professor & HOD)	1 Professor)	Nil.	2 Adjunct	Nil	√	√	1 FT Professor joined Aug2016
Sept2017	1(professor & HOD)	1 (Professor)	Nil.	2 adjunct	1 invite d LEC	√	√	

HOD= Head of Department/Unit; LEC= lecturer; FT = Full time;

SEL= Hospital Selayang; HATTM = Hospital Angkatan Tentera Tuanku Mizan

3. DISCUSSION

Patient contacts have always been an integral part of undergraduate medical education. (Bokken L, 2008) It is a fact that both Simulated patients (SP) contacts in Year 3 and Real patients (RP) contacts in Year 5 had been engaged in the teaching training of Adolescent Medicine in the Paediatrics and Adolescent Medicine Unit at FMDH, NDUM.

The Faculty of Medicine and Defence Health (FMDH), National Defence University of Malaysia (NDUM) had taken upon the challenge in introducing the use of adolescent simulated patient in the undergraduate adolescent medicine curriculum for the Year 3 medical students, since the inception of the Paediatric and Adolescent Medicine postings in Sept 2013. This was following proposal by PSSA in order to get patient contacts with respect to Adolescent Medicine through a working paper titled the "Simulated Patients (SP) program for Adolescent Medicine" (Aye S & Mohd. Noor MA, 2015.)

Learning through clinical practice has traditionally been the mainstay of practice-based health professional education programs. Early patient contacts had been recommended by the Association of American Medical Colleges and the UK General Medical Council (Spencer J, Blackmore D, Heard S, 2000,) One systematic review had found the positive effects of early patient contacts: they increased student motivation, taught students "things that cannot be learned from books", increased students' confidence to interview patients and eased transition from preclinical to clinical training. (Little wood S et al, 2005)

Both simulated patient contacts and real patient contacts are considered indispensable to undergraduate medical education. Each contact has unique strength and weaknesses from the perspectives of students

For the year 3 students who had opportunity to conduct interview with adolescent aged simulated patients, they had benefitted from the feedback obtained after the session from the SP on their communication skills and interview technique. (Aye S & Mohd. Noor MA, 2015)

The importance of bedside teaching using real patients in medical education was emphasised by the father of modern medicine, Sir William Osler. He is widely acknowledged with the following statements on bedside teaching .

"To study the phenomena of disease without books is to sail an uncharted sea, while to study without patients is not to go to sea at all" and "The student begins with the patient, continues with the patient and ends his studies with the patient, using books and lectures as tools as means to an end. (Osler W. 1903.)

However, for the Year 5 students, the Adolescent Health Clinic in the second affiliated teaching hospital, was included as a training area for Adolescent Health clinic encounters but only as observers. The advantage is that Year 5 students had an opportunity as observers to understand the approach to how a clinic interview is being conducted by a Consultant Paediatrician at first hand. They also had the feel of authenticity of the interview session since real patients are preferred by most students to acquire skills and knowledge for this very reason.

One study found that communication skills training by real patients led to stronger focus on the psychosocial content of the medical interview whereas training by SPs resulted in significantly better verbal skills such as summarization (Simek Downing L, et al.). On the

basis of these findings, it was suggested to use SPs in the early stages of communication skill training and real patients in later stages when students have mastered the basic interviewing skills.

In our curriculum, it seems that we had done exactly as suggested as above, since we had included the innovative simulated patients program in Year 3 with observing the real Adolescent patients at affiliated teaching hospital in Year 5.

However, the feasibility of the students to be able to make the HEADSSSSS psychosocial assessment at first hand, in year 5 needs to be explored in order that the students could put to practice their acquired skills with simulated patients in year 3 to real patients at the adolescent health clinics.

4. Limitations & challenges

There are limitations to the implementation of the Year 3 and Year 5 posting curriculum with just one full time, anchor person and 4 adjunct lecturers; to remedy this, the Faculty, since September 2016 had recruited one additional full time professor in order to ensure enhanced and seamless implementation and monitoring of the posting in meeting the objectives of the Paediatrics posting. (Table 2).

The formulation of the curriculum had taken into considerations the rules and regulations of the Malaysian Medical Council (2017) and the standards for medical education, General Medical Council, UK (GMC 2016 & 2017)

5. CONCLUSION

An undergraduate curriculum suitable for Adolescent Medicine teaching learning in Paediatric Postings had been formulated and implemented over the past 4 years and is ongoing. The innovative & unique inclusion of the simulated patients in Year 3 and adolescent aged real patients (even though students are only as observers) in Year 5 had enhanced the training for the students.

However, in order for the final year 5 students to demonstrate their skill into practice, it is recommended that the Faculty should re-design the clinical experience with adolescents, by involving the students to actively participate at the real patients' adolescent clinics, at the affiliated teaching hospital in future.

The SPs and the RPs included in our undergraduate curriculum have really made a highly valued and indispensable contribution to the teaching training of Adolescent Medicine in Paediatric postings at FMDH, NDUM, Malaysia.

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