

# **A Review and Nested Case Study of Special Study Modules in Undergraduate Medical Education at the University of the West Indies, Jamaica**

D Ragoobirsingh<sup>1</sup>, TJ Paul<sup>2</sup>, MJ Branday<sup>2</sup>

## **ABSTRACT**

**Objective:** To evaluate the special study modules (SSMs) that were developed with the aim that students should have learnt new skills, adopt new attitudes and acquire knowledge in areas outside the mainstream of medical education that enrich and enhance their professional development.

**Methods:** A review of records in the office of curriculum affairs was undertaken to identify and categorize all topics administered as SSMs to medical students since the last revision of the curriculum. Additionally, a nested case study was done on one of the modules on “taking a spiritual history”.

**Results:** The SSMs were divided into three broad subject panels. Each SSM regardless of its subject panel had expressed goals, a set of objectives and a defined development structure. The nested case study revealed that forty students took part in the SSM on spiritual health. Overall, students reported positive feedback on the experience and there has been a growing demand for this SSM.

**Conclusion:** From all indications, this programme ensures development of lifelong skills, transferable or generic, associated with opportunities to explore topics outside the core of the undergraduate medical curriculum.

**Keywords:** Jamaica, medical Curriculum, Mona Campus, nested case, special study module, The University of the West Indies

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From: <sup>1</sup>Basic Medical Sciences and <sup>2</sup>Office of the Dean, Faculty of Medical Sciences, The University of the West Indies, Mona Campus, Kingston, Jamaica.

Correspondence: Dr D Ragoobirsingh, Faculty of Medical Sciences, Teaching & Research Complex, The University of the West Indies, Mona, Kingston, Jamaica.

Email: dalip.ragoobirsingh@uwimona.edu.jm

## **INTRODUCTION**

In the field of education, the British General Medical Council has recognized the value of a broader based education experience and advocated the introduction of areas such as the arts and humanities into medical curricula (1, 2).

The undergraduate medical curriculum at The University of the West Indies (UWI) Mona was designed to produce competent graduates with skills that equip them for lifelong learning. It is comprised of core modules and a series of special study modules (SSMs). The structure and delivery of SSMs is designed to promote self-learning and develop understanding rather than just the acquisition of knowledge.

The philosophy and aim of the SSMs is to provide students with an opportunity to explore subjects of particular interest to them in greater depth than the core course allows and to assist them in developing analytical and communication skills.

This paper describes the range of topics covered in the delivery of SSMs to students from the inception of the programme and looks at the value of SSMs in enhancing curriculum diversity.

## **SUBJECTS AND METHODS**

A review of records in the office of curriculum affairs was done to identify and categorize all topics that have been administered as SSMs to medical students since the last revision of the curriculum. The topics were sorted by subject area and a content analysis was done to group

learning outcomes into common themes. Additionally, a nested case study was done on one of the modules covering “taking a spiritual history”.

Forty students took part in this SSM which ran for six weeks on a part-time basis. The aim was for students to develop knowledge and skills on the assessment of spiritual health. Each student took two in-depth patient histories using a structured spiritual assessment tool. Their written feedbacks were reviewed and collated to highlight the key reflections.

## **RESULTS**

### *SSMs*

List of SSM’s offered:

- Ethical Dilemmas in Medicine
- Environmental Hazards affecting the Human Foetus – the Effect of Heavy Metals
- The History of Medicine
- The Use of Radio in Health Promotion/Education
- Screening for Obesity and Diets for Management
- Ethical Issues at the End of Life
- Sports Injuries affecting the Knee
- Gender, Sexuality and Behaviour Change Communication
- Current Thinking on Nutrition and Child Development
- Drug Discovery; Ethnopharmacology and Other Approaches
- Substance Abuse: Caribbean Issues and Responses
- Port Health and Quarantine

## Special Study Module

- Health Promotion: Teach and Learn
- Continuing Medical Education – a Needs assessment
- Creative Photography
- Spiritual Health
- Introduction to Telemedicine
- Emerging Parasitic Infections in the Caribbean
- Designer Drugs – the Way Forward
- Sign Language
- Spanish
- Evaluating Research in the Faculty of Medical Sciences, UWI
- Functional Determinants of Autonomic Control of the CVS
- Eating Disorders – their Effects on Nutrition and Health Status
- Male Sexual Function and Dysfunction
- Approaching Dilemmas in Clinical Ethics through Film
- Wine making
- Creative Writing
- Medicine, Law and Ethics

### (i) Subject Panel

The SSMs were divided into the following broad subject panels:

- Arts and the Humanities
- Basic Sciences
- Clinical care

(ii) Goals

The expressed goals of each SSM, regardless of the subject panel were to provide opportunities for students to:

- \* Source, process and critically evaluate information
- \* Develop the skills of group work and group leadership
- \* Develop and maintain oral and written presentation skills

(iii) Objectives

To achieve the above goals the candidates adhered scrupulously to the stated objectives which emphasized that on completion of this series of modules the student should be able to:

- \* Retrieve information
- \* Evaluate and critically appraise both written and oral communication
- \* Demonstrate the ability to work as a team
- \* Demonstrate the ability to carry out self-directed learning

(iv) Development Structure

As such each module was designed to include as many of the following elements as possible:

- \* Subject material with some relevance to the practice of medicine
- \* A method of learning that promotes self-direction
- \* Defined times for contact with the coordinator
- \* An allocated number of hours per week for completion
- \* A written overall aim
- \* Written student centered objectives

## Special Study Module

\* A defined method of assessment which matches the objectives of the module

### *Nested Case Study*

Forty students took part in the SSM on spiritual health. The main reflections reported by these students were:

“Understanding of spiritual health has broadened beyond Christianity. It provided an opportunity to look at the person behind the illness and to connect”.

“What was most challenging was determining what spiritual health meant to me.”

“This was a stimulating experience for me as my journey through medical school is a spiritual one. I see the benefits of incorporating spiritual aspects of medicine into my history. This will undoubtedly be listed among my most meaningful undertakings in medical school”.

Overall, students had positive feedback on the experience and there is a growing demand for this SSM.

## **DISCUSSION**

The wide range of topics developed into SSMs by faculty highlight an avenue for enriching and building diversity in the undergraduate medical curriculum. It must be admitted that the SSM programme at Mona does not adhere scrupulously to the recommendations of the GMC, practiced by many United Kingdom medical schools. The latter involves modules of varying length which are in subjects directly related to medicine, whether laboratory based or clinical,

biological, or behavioural, research oriented or descriptive (3). It is noteworthy, however, that students in these schools have to do an SSM in each of the first three years, if not more, of their curriculum. As such in the first-year of their five-year medical course, the SSMs focus on information retrieval and presentation; information technology and skills in data analysis. Early in year two, another SSM is primarily a literature review related to a particular medical or biomedical science topic. It is only at this juncture that students are thought to be mature enough to gain broader experience in a topic not necessarily directly allied to medicine. At Mona, on the other hand, the students are required to do just one for the entire duration of their programme. The philosophy underpinning SSMs was to introduce alternative educational climates early, as suggested by Roff and McAleer, which can be motivating and the mature learner, wants progressively different types of teaching, learning and environment (4).

Qualitative student feedback, for the most part, reflected satisfaction with the experience gained. They appreciated that they were being exposed to other learning methods that they may not be able to access otherwise. They were intrigued by the opportunity provided for them to set their own objectives and explore their own interests. The need for teamwork was also highlighted. Among all the positive reports received and recorded was the refrain expressed by nearly all the students of the workload that SSMs imposed on their already packed timetable. From the supervisors' perspective the experience was very rewarding. The diligence and commitment of the students motivated the former to persevere.

The nested case study that follows gives a more in-depth look at the Mona SSM experience. The nested case study, although not a representative sample of SSMs, provides some qualitative insights into the students' response to what may be deemed non-mainstream curriculum. The main reason for using nested study was to reduce the labour and cost of data

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collection by collecting data only for those subjects who are chosen for the nested study (5). This form of analysis is used widely (6, 7).

Exposure to spiritual history taking is seen as a positive one by students with perceived benefits to both patients and students. Students saw benefits to this exposure while at the same time reported challenges with applying the concept to themselves suggesting deeper application of the material. It also highlights values implicit to molding well-rounded physicians as they looked at the “person behind the illness” and sought to connect.

Teaching about spirituality in medical school training is lacking. Spirituality is a dimension of humanity that can put experiences of health and illness into a meaningful context. Medical students might benefit from understanding spirituality as an important element in learning to care for patients. Spirituality also provides a context for medical students to explore their own motivations for doctoring (8).

The relationship between spirituality and health is receiving increased attention; consequently medical schools have begun asking how and in what manner these issues should be addressed in medical education. Unfortunately, student beliefs concerning spirituality and health have not been adequately assessed.

Selecting this SSM for the nested study is proving to be instructive in curriculum review and possible revision going forward. The Mona medical school can learn invaluable lessons from the study done by Guck and Kavan (9). This study examined medical students’ beliefs regarding the relationship between spirituality and health and the level of instruction spirituality should receive in the curriculum. Spiritual practices were seen as more helpful for acute and mental health conditions than for chronic or terminal conditions and believed to be more helpful for coping with a health condition than for healing tissue. Students believed that patients could

benefit from spiritual practices more than they could for their own health conditions. Most students endorsed a lecture or one- to two-week seminar with instruction in the first or second year of medical school. Student spirituality was the only predictor of required level of instruction in the medical school curriculum.

Mona can further learn from the model employed in the Diploma nursing curriculum at the University of Malta (10). The aim was to increase students' awareness about the essence of spirituality in care to enable them to implement holistic care. Spirituality may or may not incorporate religiosity. Apart from the use of traditional teaching methods such as lessons and a seminar, other methods were used constantly throughout the study unit, for example, self-reflection exercises, case studies and small group discussions to enhance learning.

The Mona Medical Education Unit may wish to consider the recommendations proposed in the aforementioned studies with a view to introduce other teaching methods for effective learning. However, it will be prudent to evaluate if an intervention in teaching spirituality and health fosters competence changes in healthcare students (11). In fact, Mona can further learn from the Neely and Minford study that investigated the status of teaching on spirituality in medicine in UK medical schools to establish if and how medical schools are preparing future doctors to identify patients' spiritual needs (12). They found that there was little uniformity between medical schools with regard to content, form, amount, or type of staff member delivering the teaching. It was suggested that it would be beneficial to introduce a standardized curriculum on spirituality across all UK medical schools. Rather than reinventing the proverbial wheel, Mona could possibly adopt and adapt the latter if, and when, it decides to incorporate spirituality and health in the curriculum.

## Special Study Module

From the analysis of the range of topics provided to students and the qualitative nested case analysis this aspect of the undergraduate medical curriculum appears to provide a useful opportunity for personal and professional development and self-growth. In this sense as much as it is provided in a peripheral manner to the core biomedical content of the early years of training it can play an integral part in molding the future physician.

The SWOT analysis revealed a wide range of benefits to participating students. Opportunities for curriculum diversification through external stakeholders were also identified. The main weaknesses that were identified resulted from a lack of resource support and the threat of an expanding core curriculum eroding time for non-core activities.

### **CONCLUSION**

Given the students' interest and perceived benefits, the maintenance of non-core subject teaching require greater buy-in from staff, and will depend largely on increased resource support and allocation of time. In 2010, the SSM initiative was adapted to a student self-crafted community service experience. This came about because of increasing class sizes and the challenges with providing SSMs to all students.

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### **Author Contributions**

D Ragoobirsingh, who was the original coordinator of the SSM module, conceived paper, wrote the manuscript, and approved the final version.

TJ Paul, the then Director of the MBBS programme, collected and analyzed the data, conducted the nested case analysis and reviewed the final manuscript.

MJ Branday, one of the main architects of the new curriculum, provided invaluable information on the conceptualization, subject panels, goals, objectives and the structure of the SSMs and he reviewed the final manuscript.

The authors declare that they have no conflicts of interest.

## REFERENCES

1. Tomorrow's Doctors. Outcomes and standards for undergraduate medical Education. General Medical Council, London, UK, 1993; pp 1-104.
2. Tomorrow's Doctors. Outcomes and standards for undergraduate medical Education. General Medical Council, London, UK, 2009; pp 1-108.
3. Yates MS, Drewery S, Murdoch-Eaton DG. Alternative learning environment: what do they contribute to professional development of medical students? *Medical Teacher* 2002; **24**(6):609-615.
4. Roff S, McAleer S .What is educational climate? *Medical Teacher* 2001; **23**:333-334.
5. Nested case-control studies :  
[www.medicine.mcgill.ca/epidemiology/hanley/c681/clayton.../c\\_h\\_33\\_nested\\_cc.PDF](http://www.medicine.mcgill.ca/epidemiology/hanley/c681/clayton.../c_h_33_nested_cc.PDF)
6. Campen D, Hui R, Spence M et al. Risk of acute myocardial infarction and sudden cardiac death in patients treated with cyclo-oxygenase 2 selective and non-selective non-steroidal anti-inflammatory drugs: nested case-control study. *Lancet* 2005; **365**(9458):475-481.
7. Jenab M, Bueno-de-Mesquita HB, Ferrari P, et al. Association between pre-diagnostic circulating vitamin D concentration and risk of colorectal cancer in European populations: a nested case-control study. *BMJ* 2010; **340**:b5500.
8. McEvoy M, Gorski V, Swiderski D, Alderman E.Exploring the Spiritual/Religious Dimension of Patients: A Timely Opportunity for Personal and Professional Reflection for Graduating Medical Students. *Journal of Religion and Health* 2013; **52** (4):1066-1072.

9. Guck TP, Kavan MG. Medical student beliefs: spirituality's relationship to health and place in the medical school curriculum. *Med Teach*.2006; **28**(8):702-7.
10. Baldacchino DR. Teaching on the spiritual dimension in care to undergraduate nursing students: the content and teaching method. *Nurse Educ Today*. 2008; **28**(5):550-62.
11. Igraine HSO, Gonçalves LM, Pozzobon PM et al. Effect of an educational intervention in “spirituality and health” on knowledge, attitudes, and skills of students in health - related areas: A controlled randomized trial. *Medical Teacher* 2017; **39**(10) 1057-1064.
12. Neely D, Minford EJ. Current status of teaching on spirituality in UK medical schools. *Med Educ*.2008; **42**(2):176-182.