A DIAMOND Approach for Keeping Medical Curriculum Live and Healthy

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ABSTRACT

During the last two to three decades many efforts have been made to improve curriculum and made changes in order to get maximum outcome at undergraduate levels. However the question whether curriculum changes result in better medical doctors is a complex one and so far failed to answer correctly. The continuing medical education (CME) after graduation is also considered as an activity for enhancement of knowledge and skills.

We believe that medical educationist neglected a hypothesis presented about the diseases of curriculum whether at any level of medical education and would not be able to make good changes until unless prevent these diseases.

This paper is an effort to develop a model by synthesis of a curriculum of CME activity for general practitioners (GPs) with the name of Family Medicine Essentials (FAME) that will prevent the diseases of curriculum and later may predict an understanding of the factors contributing for development of a long live healthy curriculum.

Key words: curriculum, diseases of curriculum, CME

Introduction

The word curriculum derives from the Latin currere meaning 'to run' (1). It was also described as template, which enables students to learn. There is an expectation that learning takes place during any course in terms of knowledge, skills and attitudes. As a whole it should provide objectives, learning methods, and assessment strategies for the students. Sometimes people mix curriculum with a syllabus that only define the content of the course. The journey of curriculum started in 1911 from Flexner with teacher–centered approach to reach up to a new SPICES model from Harden in 1984 (2).

Abrahamson speculated in 1978 (3) that every curriculum is a living body and it is prone to develop nine diseases if not planned well and not monitored continuously. Some other authors (4,5) also pointed out these diseases. So far not so much attention has been given to these problems. There are several methods of developing a curriculum (6) and also these approaches take care of all factors contributing to develop a good curriculum, however their success is remained unanswered at several places. This article discusses different issues related to the prevention of diseases in curriculum with a hypothetical model with the help of synthesis of a curriculum implemented as CME activity for GPs in Saudi Arabia.

Discussion

Worldwide, there are now two main curriculum models for undergraduate medical education, although within these overarching models there is a range of educational options. The two models are: a five, six or seven year "traditional" program, primarily for

school leavers and a four year graduate entry (GEP) program (sometimes slightly longer) for graduates or qualified health professionals (7). These both curriculum models are appropriate to produce good practitioners so far however it is still required that the educational activity should be continued.

Moreover medical educators have become increasingly aware of the need of a better preparation of medical students and residents for their role in society (8), and therefore focus to develop good curriculums (2). However which method and which approach is effective is still debatable.

We proposed a model that might prevent the diseases mentioned by Abrahamson (3). In this model we synthesised a CME activity with the name of Family Medicine Essentials (FAME) implemented as national training program for GPs in Saudi Arabia and proposed seven approaches to have a healthy curriculum.

This course includes seven modules and each module is carried out in three days. It is designed to give knowledge, change attitudes, and improve skills in a few main areas of family medicine based on either international or national established clinical practice guidelines. As a distinct approach, this course is highly learner-oriented and each specified area starts with a lecture and continues with group work, case discussions, role-playing, and other interactive learning activities. Let's discuss seven approaches individually.

Approach 1: Different curricula simultaneously (D)

The FAME program emerged because of a need in comprehensive postgraduate education of the GPs in Saudi Arabia (currently 99% of the practicing GPs are practitioners without any postgraduate qualification). However, there are a lot of other parallel CME programs running in the country. Among these are the CME activities of the family medicine departments at the universities, efforts of the ministry of health and more comprehensive programs such as the "Breast Screening Program" or the "Obesity Awareness Program". Of course there are a lot of overlapping areas in these programs. Also the program coordinators and policy makers are aware of this overlapping. However, since most activities are run by different groups with different management and different funds, it becomes very difficult to establish a convergence of these curricula. By converging the training activities, the trainees would receive a more standardized education, wasting of resources could be minimized. As a concrete example, those who finish certification programs such as the FAME could deduct this time from longer programs such as the diploma in family medicine or the board programs.

Approach 2: Integrated (I)

The target population of the FAME program are all GPs countrywide (approximately 6 thousand in number). Learner expectations are taken before each module and the content is tried to be tailored accordingly. However, we couldn't include learner expectations during the planning phase of the curriculum. Also regarding the other items of the SPICES model there are areas to improve. Although there is no complete problem based approach, print-based scenarios and small group work activities make the majority of the teaching strategies.

Approach 3: Adaptive curriculum (A)

The adaptive curriculum of Dundee University was a new concept to us and we found it really interesting and useful. In the FAME program on the other hand, we don't have the discrimination of "core curriculum" and "additional topics". There are slow learners and more able students in all training activities, which we also observed during the FAME courses. The more able students will certainly benefit if they have to opportunity to do more. Slow learners on the other hand will not be stressed with extra load beyond the core curriculum.

Approach 4: Monitoring (M)

The educational environment of the FAME courses are training centres located in each district. It is a classroom based teaching without any connection to the practice area. We are aware of the importance of the impact of learning environment on educational outcomes. However, so far we couldn't do any measurement in this regard. We evaluated another curriculum run by our department (the Saudi Diploma in Family Medicine) using the DREEM inventory. This experience stimulated us to do the same exercise

for the FAME program. However, this couldn't be done so far.

Approach 5: Outcome based (O).

Although the outcome-based approach is expressed and defended frequently among the program developers, I am not sure whether this can be accomplished in practice. During the curriculum development process of the FAME program, we discussed about the outcomes expected from the program and tried to prepare the curriculum accordingly. However, since it is difficult to evaluate the outcomes our trainees display after the course, we can't measure how much successful we were in establishing an outcome based approach. This approach would benefit our students in the sense that they would be equipped with knowledge and skills that they can directly apply in practice.

Approach 6: Non-static curriculum (N)

We agree with the idea that we need to assure a continuous improvement of our curriculum. Also our curriculum development team of 5 other colleagues share this belief. The following sentences are from the FAME curriculum:

"Each session of the course will be evaluated by the learners using the course rating scales. Oral feedback will be taken from the learners at the end of the third day.

Each trainer will prepare a personal report on the course mentioning possible areas to be improved. With the guidance of these reports, the course leader will prepare the final report of the course. The course leader prepares a report of the course including the opinions of the other trainers with suggestions of improvement and presents it to the Center of Postgraduate Studies, Riyadh. Continuous effort will be spent to update the curriculum

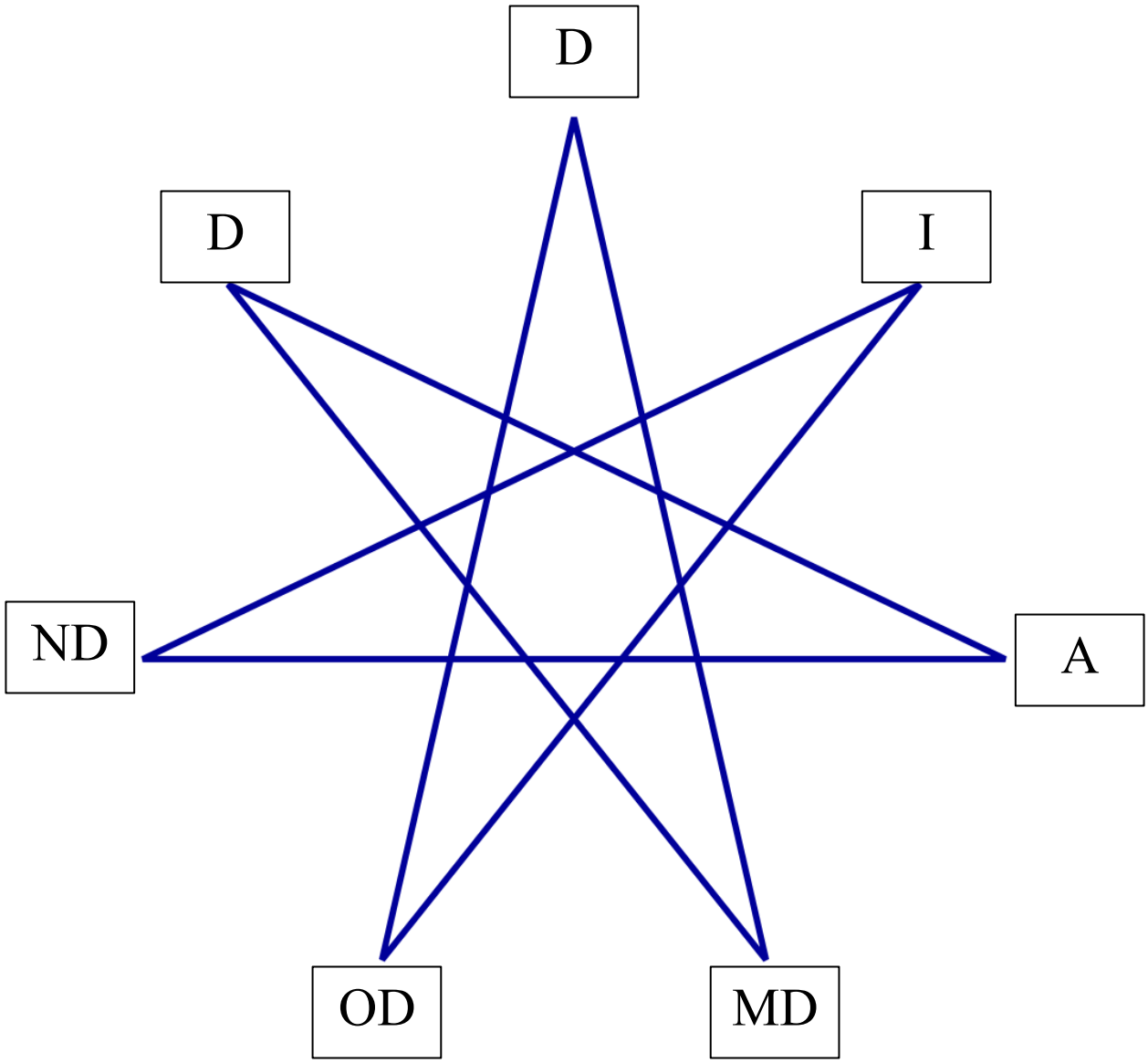
The FAME program started to be implemented in three cities (Al Kharj, Al Baha and Al Jouf) just since July 2009. So far three modules could be applied. Materials and opinions are collected to make the curriculum dynamic. However, it is early to say that our curriculum has some diseases. We hope and strive to prevent the possible curriculum diseases.

Approach 7: Developmental factors (D)

There a lot of different factors affecting the curriculum development. Support by the policy makers, availability of resources, time issues, availability and ability of staff members are all important determinants. When we first developed the FAME curriculum it seemed to me as a possible futile exercise because we didn't have enough funds to apply it on a wide scale and there was no interest by the politicians. However, after gaining the attention of the vice minister of health, everything changed. Now there is a plan to implement the program nationwide. Unfortunately there is a big gap between the aims and views of the politicians and us curriculum developers. We can state two concrete examples: we requested an orientation workshop for the trainers of 3 days but the decision was 2 days. Also our request for secretarial support to collect and evaluate trainee feedbacks in a systematic and scientific manner couldn't be answered so far. Hence, we agree that curriculum development is the art of possible and we have to come up with the best dish with the available cooking material.

Table 1. A DIAMOND approach to secure curriculum from diseases

	Approaches
D	**Different curricula simultaneously**
I	**Integrated**
A	**Adaptive**
M	**Monitoring**
O	**Outcome based**
N	**Non-static**
D	**Developmental**



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