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Towards a five-year Problem Based Learning curriculum in the University of Transkei, South Africa

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ABSTRACT

The aim of this article is to create awareness about the five-year Problem Based Learning (PBL) curriculum at the University of Transkei (UNITRA). PBL has many advantages over the traditional system of teaching. One of them is that it allows students to gain and retain information better. The "hypothetico-deductive" strategy traditionally used in PBL should be replaced by scheme-driven search strategies so that students develop a more organized and logical approach to problem solving. Knowledge is stored in long-term memory, and therefore PBL is a time saving method of learning (Mandin et al, 1997). This justifies the implementation of the 5-year teaching curriculum.

The Faculty of Health Sciences at the University of Transkei is a leading institution in Southern Africa with regard to PBL. Since the introduction of PBL method in UNITRA in 1992, there has been a drastic reduction of student dropouts. The PBL curriculum provides students from weak academic backgrounds with the opportunity to keep in step with the program from year to year (Meel, 2002).

The author has discussed a number of issues related to students and community in this presentation, and recommended that the other universities in South Africa should also utilize the same curriculum of teaching, so as to maximize the chances of success among disadvantaged. The State is expecting outcome-based-education to meet the deficiencies of the past, which the community has been expecting for a long time. Implementing the five-year PBL curriculum in all medical schools could fulfill this goal.

Students have been successfully involved in the five-year problem-based -learning process at the University of Transkei Medical School for three years.

Keywords: Problem Based Learning , Teaching methods, Teaching systems, Communication skills

Introduction

Problem based learning is widely used in undergraduate medical education to develop critical thinking and problem solving skills (Walker et al, 2001). PBL was implemented in UNITRA medical school in 1992, and since then several changes have been made to foster effective learning. In the year 2000, the 5-year curriculum was implemented in three phases following a curriculum workshop (HPE, 2001). The first batch of these students is now in the 3rd year.

On 15th June 2002, there was a workshop carried out on the five year curriculum development, which was very well attended. The coordinators presented their strengths and difficulties with caution about the time frame on the phase III (clinical years). It was also discussed that the Health Professions Council of South Africa (HPCSA) is more concerned about the medical students knowledge, attitude, skills and habits. HPCSA is concerned about the quantity and quality of knowledge of these students. This was suggested to be included in the core-curriculum. There should be a qualitative assessment of students' attitude. Skills development of medical students is continuing to strengthen from the very beginning along with community training. The exemplary behavior of medical students whilst being in the community is inculcated early as they are being trained to be noble members of that community. This aspect of the training is stressed upon to prevent unethical behavior and misconduct when they become practicing doctors (HPE, 2002).

In 1997 the University of Pretoria implemented a new problem-oriented, vertical and horizontally integrated MBChB curriculum at first year level. The faculty changes its educational philosophy from that of a traditional to an innovative system. This seems to be a positive approach of a transformation from a historical conservative university (Bredenkamp & Richards, 2000).

Similarly, some other South African Medical Schools have also been in the process of developing the 5 year PBL curriculum. Four out of the 8 medical schools have already adopted PBL curriculum. The University of Transkei Medical School has a pivotal role in guiding the younger schools regarding PBL.

Changing the 6 year curriculum to 5, would entail defining the objectives clearly, and instituting a proper interdisciplinary curriculum, which is characteristic of PBL. This is still an ongoing process in UNITRA.

1. The need for a 5-year teaching curriculum

As recently as 2000, it was decided that 6-years is too long a period of training for medical students and that it needed to be reduced to 5 years. The prevailing row about the threat of additional years of mandatory post-internship 'vocational training' or 'community service' brings the whole question of the duration of South African medical training into discussion (Editorial, 1996).

There are no accurate statistics available on the brain drain, but SAMA estimates that at least 5000 South African doctors have moved to other countries such as Canada, America, Britain and Australia (Reporter, 2002). To replace the emigrating doctors, and the increased need of local primary health care professionals mainly for the disadvantaged rural communities, shortening the training period is the best approach.

The present PBL process has been suited to move students gradually from didactic teaching to self initiated learning. This makes students to develop critical thinking, problem solving, time management and information gathering. This will lead to the acquisition of academic competence

in the field of medicine, which is accomplished by following a prescribed course at a university, taking the required tests and examinations and being awarded the academic degree of M.B.Ch.B (Editorial, 1996).

These findings support the hypothetical advantages of shifting the 6 year curriculum to 5 years, both in encouraging a career in general practice and in retention of appropriate professional attitudes, that will be acquired in the development of clinical skills which is achieved through the completion of a mandatory period of professional apprenticeship culminating in Medical Council licensure to practice medicine, based on favorable mentor reports. Granted, the boundary between academic competence and clinical proficiency is a relatively soft one, but all would agree that the academic foundation is well laid by the end of the 5th year (Editorial, 1996).

Students, linked PBL with their clinical experience through cognitive psychological approach to learning (O'Neill et al, 2002). If this is a fact, then time-scale in the learning process does not have much significance after 5 years of academic training. The vertical integration between basic sciences and clinical medicine in a PBL setting has been found to stimulate profound rather than superficial learning, and thereby stimulates better understanding of important biomedical principles. Integration probably leads to better retention of knowledge and the ability to apply principles of basic sciences in the appropriate clinical context. The vertical integration supports PBL and stimulates deep and lifelong learning (Dahle et al, 1999). So far, development and research in curriculum development is highly focused on individual methods and tools, and a rather psychometric approach to validity (Van der Vleuten, 2000).

The tuition fees for academic years for medical students are extremely high in South Africa. Often, bursaries, when available, are not enough to cover the costs. The 5-year teaching curriculum is beneficial to disadvantaged students who cannot afford to pay the fees. So what is the 6th year all about, other than a handy source of tuition fee income for the university? If it is an 'internship' as is generally agreed, then it ought to be part of the statutory 'vocational training' leading to licensure, rather than a prerequisite for the M.B.Ch.B. degree which ought to be awarded after the 5th year (Editorial, 1996).

Keeping students for the sake of keeping for 6 years does not serve any purpose. A recent study carried out by Whitfield (2002) indicated that a facilitator's assessment of student's knowledge base is not useful. It means that the facilitators also have an influence on the knowledge base (Whitfield & Xie, 2002). The parents expect some relief early from their children by them earning an income. The State is also expecting outcome-based- education to meet the shortcomings of the past, which the community has been expecting for a long time. Since the introduction of PBL in UNITRA in 1992, there has been a drastic reduction of student dropouts (Meel, 2002).

Medical professionals should be lifelong learners. Therefore a 5-year academic competence seems justifiable as long as that time is made use of efficiently. The causes of academic failures in medical students are diverse and are often not related with time only. The staff shortages seem to be a more serious problem. Generally, students benefit from individually tailored programs in PBL and are often successful. Provision of individually tailored remedial teaching is labor-intensive and requires full faculty support (Sayer et al, 2002).

2. The issue of competence

Recently, widely publicized cases of serious clinical error and malpractice have prompted much discussion on the issue of medical competence. The incidents have highlighted serious failures in standards of care, particularly where clinical mistakes have been made and subsequently covered up (Flett, 2000).

South Africa is producing doctors whose competence is recognized around the world, but that competence is under the auspices of the Health Professions Council. It would then be in synchrony with most countries with which we share historical roots such as, Nigeria, Kenya, Australia, New Zealand, Malaysia, Singapore, and the UK. In Canada and the USA, where a bachelor's degree is a prerequisite for entry into medical school, the medical degree takes 4 years or less. Therefore in this instance where the duration of the course is concerned, we are the odd man out (Editorial, 1996).

The patterns of behavior will depend on the personality of the trainee and characteristic of medical education. Undergraduates in training, work in a complex environment, involving a series of interactions between the individual, the conduciveness of the workplace and the local culture. The PBL system will engender a culture in which mistakes can be admitted and rectified immediately. This will enable incidents to be used actively as learning experiences, shaping good clinical practice for the future (Flett, 2000).

3. Ethical issues

There is a constant emphasis on the ethics in the PBL tutorial groups. There is a discussion on ethical issues during each case presentation. South Africa has recently emerged from a system in which human rights were systematically violated by the apartheid policies in which health professionals were also active participants in practices that led to abuses of human rights (London et al, 2000). How is that professional training, intended to provide the skills and knowledge to equip students to enter the caring professions, could not produce health professionals sufficiently sensitized to human rights who could act in the interests of vulnerable patients under apartheid?

The consequences of the 'all powerful' status which doctors in particular hold in society can result in individual doctors being power corrupt. Medicine today is truly a worldwide industrial complex, which is dominated by multinational organizations (Gilbert et al, 2002). In the PBL curriculum the nature of professional training is such that it reinforces notions of equal professional power in relation to patient.

In summary, the PBL process is congruent with the five year curriculum, the change in UNITRA is showing success. The integration in each year demands an allocation of sufficient time in respect of planning, organization and execution. The teachers are deeply involved and enthusiastic and are cooperative across different departments.

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