Adult learning and CME

Introduction

Continuing Professional Development (CPD) has been recognised as a necessity world wide for clinicians to maintain clinical competence and remain up to date in an environment of rapidly increasing knowledge. South Africa is no exception and in 2000 introduced Continuing Medical Education (CME) where all physicians were required to submit proof of attendance at CME meetings and to accumulate the required number of points. Unfortunately the Health Professions Council of South Africa (HPCSA) did not have sufficient manpower to manage the system so it was replaced by an improved CPD model. Other problems associated with the CME system was that the process was considered punitive by some physicians and merely a point gathering exercise by others.

With this in mind the HPCSA developed a new CPD system promoting more effective learning strategies with a greater range of learning options. Practitioners have to acquire 30 continuing educational units (CEUs) per year and should have 60 CEUs per 2 year cycle. This system is now based on professionalism and trust and controlled by using an audit system.[1]

In recent times it has been appreciated that adults learn in a different manner from children and adolescents and that this different teaching method needs to be incorporated into CPD education. At the same time there have been concerns on how effective CPD is in terms of increasing knowledge, changing practice and improving patients' outcome. These 2 topics will be discussed in greater detail.

Adult learning

Malcolm Knowles introduced the term ''androgogy'' defining it as ''the art and science of helping adults learn''. This was in contrast to ''pedagogy'' which describes the manner in which children and adolescents learn. It has subsequently been appreciated that these are not 2 distinct processes but rather a continuum with progression from pedagogy to androgogy as learners mature and gain life experience. Knowles originally based androgogy on 5 assumptions on how adults learn and their attitude towards and motivation for learning. The 5 assumptions were:

- Adults are independent and self-directing
- They have accumulated a great deal of experience, which is a rich resource for learning.
- They value learning that integrates with the demands of their everyday life
- They are more interested in immediate, problem centered approaches than in subjective centered ones
- They are more motivated to learn by internal drives than by external ones[2]

What separates the 2 processes is the quantity and quality of experience that the learners have when they enter the learning experience. Lecturing is therefore much more acceptable in the pedagogic scenario but should be avoided in adult learning situations where the teacher should be a facilitator rather than a lecturer.

Various authors have listed different principles of adult education and what is common to them are the following. Adults have accumulated a foundation of life experiences and knowledge so it is important for the instructor to be aware of this and teach appropriately. Adults are autonomous and self-directed and so should be involved in a goal-orientated learning process. Adults are relevancy-orientated and learn best when actively participating in the learning process. This process is more effective when timely and appropriate feedback and reinforcement of learning is offered. Adults learn better in an environment that is informal and friendly and it has also become apparent that not all adults learn in the same way. Lastly all learners need to be respected.[3]

Most adult learners develop a preference for learning that is based on childhood learning patterns and the most frequently delineated learning styles are visual, auditory and kinesthetic learners. Visual learners prefer seeing what they are learning. The teacher needs to create a mental image for the learner and written instructions should be provided. A mental image needs to be created to assist the visual learner to hold on to information.

Auditory learners prefer to hear the message or instruction being given. Adults with this learning style remember verbal instructions and prefer someone to read the directions to them while they perform a task.

Kinesthetic learners perform best by physically doing things. Situations with materials available for hands-on practice produce the best results with this type of learner.[4]

It is therefore important to remember that adults have various learning styles and so it is necessary to combine visual, auditory and kinesthetic approaches when designing teaching strategies.

Is CPD effective?

CPD has been offered in many forms and Bloom[5] examined 26 systematic reviews where 8 CME techniques were examined to assess physician clinical-care processes and patient health outcomes. The following education methods were tested:

- Didactic programs
  Predominantly lectures and presentations that may include question and answer periods
- Information only
  Distribution of printed material alone, or as part of lecture sessions
- Opinion leaders
  Those persons recognized locally or nationally as experts who set norms for appropriate clinical practice behavior

- Clinical practice guidelines
  Structured clinical diagnostic and treatment strategies based on synthesis of best available evidence, preferably from randomized controlled trials and meta-analysis
- Interactive education
  Interactive sessions of participants and presenter or leader. These included role playing, case discussions and honing newly acquired practice skills.
- Audit and feedback
  A review of current practitioner clinical practice behavior, usually for a specified diagnosis and recommendations for new clinical behavior if warranted.
- Academic detailing/outreach
  Utilizes a personal visit by a trained professional to a physician to provide best available information on health and medical care interventions.
- Reminders
  Prompts to the practitioner to provide a specific clinical intervention under defined clinical circumstances.

Didactic techniques and providing printed material alone clustered in the range of no-to-low effects whereas all interactive programs exhibited moderate-to-high beneficial effects. The most commonly used techniques (lectures and printed matter) were generally found to have the least beneficial effects. Such didactic interventions should – as they do in the Canadian Maintenance of Competence Program - receive less credit than do more effective interventions.[6] While many questions remain regarding formal CME including group size, the assessment of learner needs and barriers to change it is clear that CME provided in an interactive setting with a hands on approach with audit and follow-up are much more likely to be effective.

Discussion

In South Africa it is possible to get all CPD points from didactic activities and among the reasons for the prevalence of this form of CPD is probably the ease of providing such activities, the substantial pharmaceutical sponsorship and the fact that providing CME activities is an effective fundraiser. The lectures might increase knowledge but this does not translate into altered practice or improved patient care.

If effective CME is to be implemented the principles of adult learning will have to be acknowledged and incorporated into the process. The methods in which the CME is presented (interactive groups with audit, feedback and follow-up) will also need to be adjusted and accommodating these factors will need significant funding and expertise that are unlikely to be available in South Africa.

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