Singapore Med J 1999; Vol 40(12):760-762

Ambulatory Care Education

Z Amin

INTRODUCTION

Over the last two decades care of patients has been shifting from traditional in-hospital settings to ambulatory settings. Education in ambulatory care is different from traditional in-hospital based education in many aspects. The settings, ambience, and nature of patients are different and teachings and learning characteristics are also unique. Ambulatory care education is increasingly being recognised as a separate entity, and educational techniques that have been historically developed and practiced in in-patient settings, may not be applicable to ambulatory care. This article aims to discuss some of the concepts related to ambulatory care education and also to build an awareness of and appreciation for it.

Definitions of ambulatory care and related themes

The common mistake that we make is to equate ambulatory care clinics solely to community-based outpatient clinics. The literal meaning indicates that an ambulatory clinic is any clinic or care facility that accepts patients who are ambulant or able to walk to the clinics. The broad rubric of ambulatory care includes a variety of hospital-based outpatient clinics, community clinics, and specialised clinics – each with unique characteristics of their own. Educational experiences and patients' characteristics of community clinics would be quite distinct from those of specialised outpatient clinics. From a learner's perspective, educational experiences of both places are valuable and necessary, yet they are different.

Yonke and Foley attempted to differentiate between primary care, community oriented primary care and specialty outpatient care from the perspective of medical education[1]. Their definitions are based on three axes with two contrasting characteristics: a) degree of emphasis placed on *community* or *individuals*; b) extent to which a *biopsychosocial* or *biomedical* approach is used, and c) the likelihood of *continuous* or *episodic* care. The relative importance given to each of these characteristics define the settings. Thus in primary care, focus of teachings and learning is on patients and family, with some or no attention to the community. Whereas, distinguishing feature of community oriented primary care is its underlying emphasis of community as patients, specialty outpatient clinics are mostly hospital-based care facilities affiliated with tertiary care centers. Both educational experiences and patient follow-ups in specialty outpatient clinics are often shorter and tend to take place at longer intervals. For the purpose of educational planning, all these diverse settings should be viewed as potential ambulatory care sites where medical students and young physicians are likely to be trained.

Importance of building up an awareness of ambulatory care education in Singapore

Medical schools and professional bodies, being social organisations, are subjected to a continuous change process. During a reform process, it is the external factors that are more empowering and more likely to bring changes than the internal factors[2]. In relation to implementation of ambulatory care education, dominant external factors that are in operation now include changes in health care economics and disease patterns, society's emphasis on disease prevention, expectations to provide comprehensive and continuity of care, and provision of care in the community. From the perspective of educational theory building, diagnostic related grouping (DRG) is also an external factor that is working in concert with all the others with the potentials to shape-up medical education towards ambulatory care settings.

The fundamental principle of DRG dictates that financial burden of medical care be shifted from patients to providers (hospitals, clinics, and physicians). For each diagnosis, providers receive a pre-determined amount of payment regardless of patients' stay and utilisation of resources. There is a built-in incentive for hospitals to ascertain speedy recovery and earlier discharges of patients. To counteract some of the predictable deficiencies of earlier discharges and to provide continuity of care, hospitals and other providers are required to develop and improve ambulatory clinics. With the increasing number of patients seen in ambulatory clinics and with the emergence of different sets of patient population with different care needs, medical students and even practicing physicians may feel inadequate in their training to manage the demands of a new system. Experiences from the USA, UK, and other Western countries reaffirm whenever DRG or similar systems are introduced, medical education is forced towards ambulatory care and we can expect to see a similar trend in Singapore as well.

Department of Neonatology
KK Women's and Children's Hospital
100 Bukit Timah Road
Singapore 229899

Z Amin, MHPE
Registrar

Emergence of goals and characteristics of ambulatory care education

In the post-world-war period, multiple attempts of reforming medical education took place. Not all of these efforts resulted in changes in intended directions and majority of the reform attempts failed to produce desirable effects. The Report of the Panel on the General Professional Education (The GPEP Report) reaffirms this view: *'A review of past efforts to modify medical education reveals that most of the problems identified in the course of this project are not new. Institutions intermittently have changed their curricular, but little progress has made toward a fundamental reappraisal of how physicians are educated'*[3]. To a newcomer in medical education it can be perplexing and somewhat of a paradox as to why advancement in medical technology has not been associated with concomitant change in medical education.

While the value of educating medical students on comprehensive medical care can be traced to the eighteenth century, it was revived once again by the landmark reform initiative of the Western Reserve Curriculum in early 1950s. The curricular planners realised the changing needs of society and the importance of reflecting these needs in medical education. The committee proposed reform measures with three major themes: a) horizontal (across different academic disciplines) and vertical (between the pre-clinical and clinical years in medical schools) integration of curriculum; b) emphasis on the understanding of human development from birth to old age, and c) provisions for comprehensive clinical care. The overall goal was to humanise practice of medicine. The concepts of curricular integration and emphasis on educating medical students in comprehensive medical care eventually became accepted as core values in medical education. Later in 1960s and 1970s, ongoing debates between comprehensive and humanised medical care versus technologically advance medical care became more polarised by societal demands. A number of researchers continue to analyse these contrasting approaches in medical education. Bloom proposed a concept centered on two opposite themes: one emphasises on the *what* aspects of medicine and the other on the *how* aspects[4]. The former, known as the reductionist approach, thrives on biomedical knowledge and technology. The belief system relies on faith in finding rational solutions of medical problems and there is a marked disinterest of concern for patients and society. By contrast, the *how* aspect of medical education, which is also known as the social ecology or humanistic approach, emphasises on how medicine should be practiced in relation to the needs of those it serves. The core values cherished in the social ecology approach are very different from the reductionist approach. The guiding philosophy dictates a serious inclination towards social, behavioral and personal dimensions of illness. The community, and not the hospitals, becomes the proper focus of medical education[4].

The core values and theoretical constructs of ambulatory care education are reflected in these two reform initiatives: Western Reserve Curriculum emphasises comprehensive care and Social Ecology theory emphasises moving medical education to the community. As idealistic as this may sound, neither of these reform initiatives ever became fully integrated in mainstream medical education. The current status of ambulatory care education can be best described as an amalgamation between inclination to practice technological advancement in medicine and heightened awareness for social and humanistic aspects of medical care. Thankfully, contrary to what seems bound to happen in the past, these two approaches are no longer considered to be mutually exclusive and it is possible to deliver high quality and technologically advance care in a comprehensive manner and in the community.

With the ongoing evolution in medical care and medical education, the goals of ambulatory and inpatient education continue to change. Each of these settings is designated to fulfill separate but complimentary goals. The focal point of ambulatory care education is now considered to be a provision of 'balanced introductory learning environment to learners[1], whereas hospital educational model concentrates on providing learners with selective knowledge in the diagnosis and treatment of advance disease states. Thus, the perceived goals and strengths of ambulatory care education can be summarised as: a) care of patients seen primarily in out-patients settings, especially patients who have chronic illness; b) observe the treated and natural progression of diseases through continuity of care; c) practice health promotion and disease prevention; d) develop patient communications and negotiations skills, and e) dealing with the social, financial, and ethical aspects of medicine[5].

Shortcomings of ambulatory care education

Inherent to the ambulatory care education are 'shortcomings' or difficulties that learners or preceptors face during teaching and learning. Some of these are: a) tight time constraints; b) less opportunity for preceptors to observe learners interacting with patients; c) failure of learners to share their educational experiences with peers, and d) limited range of patients seen in the clinics. In a way, these 'shortcomings' are also the distinguishing features of ACE that separates it from traditional in-patient oriented teaching.

Time constraints: Patients' turnover rate in ambulatory settings is much faster with interactions between learners and patients typically lasting for only 15 minutes or less. This creates an unusual demand on learners as they are expected to obtain comprehensive history, analyse data, formulate management plans, and present the findings to preceptors. The time constraint is likely to affect preceptors as well by interferring with adequate supervision, guidance, and feedback.

Lack of preceptors' observation of learners' interaction: The apprentice model of teaching and learning in medicine asserts that learners learn the crafts of medicine by observing preceptors at work

and in turn preceptors observe learners interacting with patients. The opportunity for direct observation of learners is often absent from ambulatory care education and learners often have to rely on their own instincts to shape their practice model.

Failure of learners to share experience: Unlike in-patient teachings, where group teaching and learning is the norm, typical interactions in ambulatory care education are restricted between a learner, a teacher, and a patient. Such one-to-one teaching improves assessment and feedback and builds a supportive environment. On the downside, social learning theory of education asserts that knowledge is socially constructed and progresses through interactions with others. Thus for knowledge acquisition, it is vital to have the opportunity for social interactions and group learning activities. This aspect of collaborative and group learning is difficult to practice in typical ambulatory care settings.

Limited range of patients: The patient mix in ambulatory clinics is widely variable and depends on a number of factors such as clinic characteristics, geographical locations, and practice style of the preceptors. It is not unusual for a learner in ambulatory rotations to see a limited range of patients, hence be deprived of optimum intellectual stimulation.

To counteract some of the above problems associated with ambulatory care education a number of strategies can be adopted. For example, to utilise teaching time more efficiently, preceptors may try to develop targeted and goal directed teachings and prioritise learning topics based on their relevancy to the learners. With practice, it is also possible to teach in 'one-minute time segments' that is so characteristic of ambulatory teachings. Likewise, to improve social learning and collaborative learning, ambulatory clinic experience can be enhanced by introducing case-base discussion sessions. Even simple measures like provision of reading rooms and library facilities in ambulatory clinics would improve social learning.

CONCLUSION

Ambulatory care education is a relatively new idea and our understanding of this concept is expanding daily. Regrettably, bulk of the studies on ambulatory care education is from selected Western countries. Although educational principles and theories are universal, the practice itself often depends on a myriad of local factors including societal expectations and characteristics of the learners, teachers, patients and clinics. Our next step should be the identification and characterisations of these variables.

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