

EDUCATION

Vertical integration

Beyond vertical integration

Community based medical education

The term 'vertical integration' is used broadly in medical education, sometimes when discussing community based medical education (CBME). This article examines the relevance of the term 'vertical integration' and provides an alternative perspective on the complexities of facilitating the CBME process. The principles of learner centredness, patient centredness and flexibility are fundamental to learning in the diverse contexts of 'community'. Vertical integration as a structural concept is helpful for academic organisations but has less application to education in the community setting; a different approach illuminates the strengths and challenges of CBME that need consideration by these organisations.

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The community context is ideal for learning medicine.¹

Participants can learn within general practice and primary health care teams, and in the urban, rural and remote environment. In the Northern Territory, community based medical education (CBME) includes medical student education in general practice and community clinics; coordination of rotations for junior prevocational doctors to work with a general practitioner in a community context; general practice registrar training; and support for continuing professional development. This sequential training pathway is one perspective of vertical integration in medical education.² 'Vertical integration' is an apt description for the approach of an organisation that seeks to coordinate all these levels of learning, but the terminology is less applicable to the function of a community based learning unit, which comprises all those who contribute to the learner's education; membership of these units depends on each one's context.

Vertical integration has numerous interpretations (Table 1), depending on the context from which it is viewed.3 The term 'vertical' suggests a linear ascension of learning from one point to another; it does not convey the other dimensions of depth and complexity of learning. The power of community based learning lies in its multidimensionality. It is important to understand this in order to provide adequate support to community based teachers and learners. All academic organisations that support CBME should consider their roles and relationships with the community learning units and other organisations and stakeholders.

Community based medical education

Personal, spiritual and emotional maturity develops opportunistically, not necessarily progressively from one year to the next. When medicine is learned through a patient centred approach, application of knowledge and clinical skills is integrated with progressive learning about one's self and one's relationships with patients and others. This is particularly possible in the community context. Although identified as 'professional development' in curricula, much of the learning that occurs through relationships is 'hidden curriculum': learning occurring behind the actual curriculum objectives. For example, the goal of developing communication skills that enable management of difficult consultations relies on the development of mature skills in self reflection. These will be learned and developed uniquely by each individual depending on their prior experience. Some learners may develop these skills earlier or later in their education than others, and learner centred CBME preceptors need to adapt their teaching accordingly.

The success of CBME relies on community based preceptors. They often support a number of levels of learners simultaneously and the vertically integrated academic organisation is ideally placed to support them. The community setting offers students the opportunity to engage with their context in a way that enhances the integration of their learning.5

A range of Australian organisations support CBME, in particular community orientated universities, divisions of general practice, and general practice regional training

Table 1. Vertical integration	
Meaning	Example
Educational	Integrating medical science and clinical learning (eg. problem based learning ⁷)
	Building on learning in a particular topic through all
	levels of a program (eg. ethics)
Structural	Integrating learners within a context to value add the learning between undergraduate, postgraduate and CPD levels ^{1,2,8}
Organisational	Description of a academic unit that supports the structural integration of its staff and their roles – 'a vertically integrated organisation'9
Learner perspective	Learning together across a number of levels (eg. undergraduates in postgraduate learning events ¹)
Teacher perspective	One teacher working across a number of levels

Core: learner's experience (story) and innate nature

Facets: learner's qualities, learning style, knowledge, skills interests, relationships, prior experience

'Cut and polishing' by the learning unit through opportunistic and learner specific ways, and through planned curriculum derived learning



Figure 1. The learner – the diamond

providers. These usually focus on one level of learner each, however, and are variably collaborative in their associations. There is a risk that support to community based preceptors is segregated according to institutional responsibilities. From the community perspective, more seamless support could be achieved by improving relationships between the responsible academic organisations. Ideally, they would function in a collaborative way to facilitate learner centred education and patient centred medicine.

Enhancing CBME – the diamond metaphor

The metaphor of a diamond describes the multiple facets that contribute to learning in the community and focuses on the centrality of the learner and preceptor. A diamond has depth that corresponds well to the depth of the community context for learning.

Consider the learner as the diamond

(Figure 1) with some facets shining and well developed while some are still obscured, gradually being discovered and honed with new learning experiences. The learner is shaped (or 'cut and polished') by learner centred education and response to needs. Every clinical encounter provides the educational friction by which more of the learner's brilliance is revealed - and so, too, their flaws.

The community learning unit is also a diamond (Figure 2). The learning unit has many facets - some shining and some obscured gradually being enhanced by the experience and professional development of its members. The development required will be context dependent and may also address the needs of the other staff working with the preceptor. This is particularly evident for supporting learning within primary health care teams such as Aboriginal community controlled health centres. The outcome of a well developed learning unit is provision of learner centred and responsive education that meets the goals of the specified academic organisation, along with a functional relationship between members of the learning unit and the academic unit that leads to development of increased teaching capacity, enthusiasm and enhanced effectiveness of patient care.

Issues for the academic unit

The challenges to effective functioning of the 'unit' are varied (Figure 2). Adequate stakeholder involvement in governance is important to the success of the context responsiveness of the 'unit', as is organisational management and vision regarding the innovative ways the organisation can support ('cut and polish') preceptors, community learning units and learners.

An example

Two academic organisations in the Northern Territory that oversee the education of medical students in the community are Northern Territory General Practice Education (NTGPE), established with separate funding sources for the education of medical students, junior doctors and general practice registrars; 6 and Northern Territory Clinical School (NTCS), Flinders University which manages the education of Flinders University and James Cook University medical students. The collaboration between these NT based organisations is evident in joint academic appointments. This collaborative arrangement allows sharing of educational, administrative and coordination responsibilities, as well as shared research and development activities. An outcome of a collaboration that recognises common goals is a more coordinated approach to the preceptors' needs in CBME, supporting learning at all levels. Academic support is further enhanced by other organisations supporting the learning needs of GPs and other primary health care professionals (Figure 3).

In the NT context, medical and cultural education are integrated at all levels of learning. Each organisation considers ways to provide regional contextual support that is responsive, appropriate and timely.6

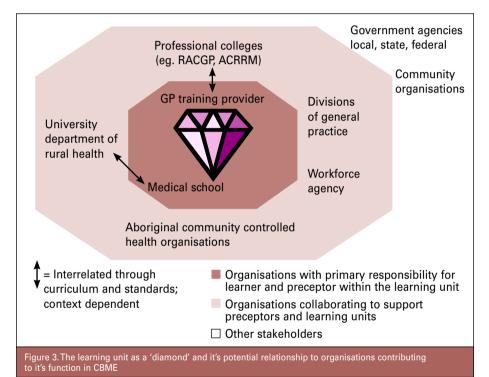
For example, we visit remote Aboriginal community clinics and community members Core: people within the unit; patients, GP. allied health professionals and other learners

Facets: learning unit qualities, opportunities, learning material and relationships

'Cut and polishing' by the academic unit through context responsive support and learning unit centred operational flexibility



Figure 2. The learning unit



to seek their support for medical learning. Accommodation arrangements for learners need to be clarified, along with expectations of the costs and benefits of their presence. The continuity of these relationships is very important within the cross cultural context, and with regular workforce turnover within the clinics. These relationships are vital to enable effective management of problems that often arise. These problems can result from a traumatic event or death in the community that changes dynamics and requires a reassessment of the learner's safety or support needs. The approach to sensitive negotiation and the maintenance of good relationships is similar whether the

learner is a student, junior doctor or registrar. Consideration of these factors by the academic organisation allows the learner to maximise the experience and extend the learning beyond their comfort zone. Academic organisations need effective collaboration to access these contexts noncompetitively for learning.

The challenges to maintaining this 'unit' originate from local and national expectations, issues of ownership and pressures of resource allocation. Without collaboration focused on the learning unit in the community, there is duplication of resources and effort, potentially counterproductive competition for use of locations, poor coordination of response to the preceptor and learning unit's needs, and suboptimal educational experience for the learners. Improving this can improve CBME and ultimately the potential for coordinated and integrated patient care.

Conclusion

Learner centredness, patient centredness and flexibility are important principles in CBME. Vertical integration as a term does not adequately describe the progress of learning in the community context and should be expanded to acknowledge the additional value of multifaceted learning from the context of CBME in order to improve understanding and support.

Conflict of interest: none.

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