Shared learning in general practice

Facilitators and barriers

Thea van de Mortel
Peter Silberberg
Christine Ahern

Background

Capacity for teaching in general practice clinics is limited. Shared learning sessions are one form of vertically integrated teaching that may ameliorate capacity constraints.

Methods

This study sought to understand the perceptions of general practitioner supervisors, learners and practice staff of the facilitators of shared learning in general practice clinics. Using a grounded theory approach, semistructured interviews were conducted and analysed to generate a theory about the topic.

Results

Thirty-five stakeholders from nine general practices participated. Facilitators of shared learning included enabling factors such as small group facilitation skills, space, administrative support and technological resources; reinforcing factors such as targeted funding, and predisposing factors such as participant attributes.

Discussion

Views from multiple stakeholders suggest that the implementation of shared learning in general practice clinics would be supported by an ecological approach that addresses all these factors.

Keywords

mentors; learning; model, educational; teaching/methods; qualitative research

Training of general practice registrars (GPRs) has typically involved one-to-one teaching provided by a supervisor.[1] However, the rising numbers of medical students (MSs), Prevocational General Practice Placements Program (PGPPPs) doctors and GPRs requiring general practice placements,[2,3] coupled with regional workforce shortages, have created time and financial impacts on Australian general practitioner supervisors. Similar problems have been reported internationally.[1,4–7]

Vertically integrated education[8] has been suggested as a potential solution to capacity constraints.[4,9] One of the ways in which vertical integration can occur is through the teaching of multiple levels of learner together in shared education sessions (shared learning),[1,10] such as the GP supervisor running a tutorial attended by a mixture of registrars, PGPPPs and MSs.

The uptake of vertically integrated teaching in Australia has been patchy. While a survey of 17 Australian general practice training providers found that vertically integrated activities were occurring in 11, only five reported an organised approach to vertically integrated teaching in their region.[9] Analyses of shared learning in general practice are largely based on anecdote or a narrow range of interviews. The views of learners are almost absent. Suggested barriers to vertically integrated education include a lack of funding support,[11] variable learning needs due to disparate curricula[12,13] and the prior learning experiences of learners,[11] lack of space[11,14,15] and information technology infrastructure/skills,[11,15] supervisors' variable teaching skills,[4,10] concern about the quality of the learning experience,[4,10,16] time constraints,[14–17] and the lack of sufficient supervisors for the teaching load in smaller practices.[15,17,18]

If shared learning is to be utilised as a tool to increase teaching capacity, more information is needed on the views of all key participants. This article addresses the following question: 'What do learners, supervisors and key administrative staff in general practice clinics perceive are the facilitators of shared learning in general practice?'

Methods

Design

We chose a grounded theory approach, which guides the investigation of phenomena without preconceptions or hypotheses.[19] Data is collected until no new information emerges. Codes and categories are created as the basis for forming hypotheses and an overarching theory is generated, which can be later tested through further research.[19]

Participant selection

We obtained a convenience sample of accredited general practices in northern New South Wales that supervised a combination of GPRs, PGPPPs and MSs. Some practices primarily used a vertically integrated model, while others used it occasionally. This allowed access to a range of views from those already committed to vertically integrated teaching, and others with potentially less positive views of shared learning or more difficulty implementing it. Information about the project and invitations to participate in the project were emailed to GPs, learners, practice managers and practice nurses at these clinics. The voluntary and confidential nature of participation was emphasised. Participants received a small honorarium.

Instrument

Participants were individually interviewed using a semistructured interview guide designed to elicit their current and past experiences of medical teaching. Specific questions addressed to shared learning were:

- What do you see as the necessary attributes for shared learning in general practice clinics to be successful?
- What do you see as the barriers to implementing shared learning in the general practice clinics?

Teaching was defined as structured education sessions such as lectures, tutorials, case discussions and journal clubs, and excluded corridor teaching. Shared learning was defined as the delivery of education sessions by the teacher simultaneously to multiple levels of learners.

Data analysis

Interviews were conducted in person or by telephone and recorded, transcribed and subsequently coded independently by three researchers using a constant comparative method[19] into the qualitative data analysis software package NVivo9.[20] Research findings were reviewed by the advisory panel.

Data saturation was reached when 11 GPs, eight GPRs, two PGPPPs, eight MSs, four practice managers and two practice nurses from nine general practices were interviewed; 63% were female. All but two doctors obtained their medical degree in Australia. The concepts derived from the data were grouped into three core categories: enabling, predisposing and reinforcing factors *(Table 1)*.

Results

Facilitators and barriers tended to be paired. For example, sufficient space is a facilitator of teaching, and the lack of space is a barrier. Results have been reported as facilitators unless there was no paired facilitator. Key concepts are illustrated by quotes, which also indicate the type of participant and their gender.

Enabling factors

Enabling factors included the structures, resources, skills and circumstances that supported shared education sessions.

> 'You've got to have a helicopter view of how the interaction is going and if it's not going so well, what can you do to beef that up so no one walks away thinking, 'that was a waste of time' ... it's a matter of getting everyone engaged so it's a worthwhile exercise for the participants.' [Male GP3]

When clear group etiquette was established at the start of a session, it prevented conflict caused by having a wide range of opinions and expectations.

> 'Being on time, putting phones on silence, not having interruptions.' [Male GPR1]

Creating trust and defusing power relationships permitted all learners to interact in a group without fear of embarrassment.

> 'Having that sort of constant gathering … builds the relationship, it's not only the teaching but it's also the relationship building which is important.' [Female MS7]
>
> 'You need to be open to the entire educational process [which] may be difficult for some people based in a hierarchical learning environment.' [Male GPR8]
>
> 'It depends on the atmosphere you create. That there is no such thing as a dumb question. I try and do that by asking questions myself, or very readily admitting I don't know the answer myself, "How can we find that out?" ' [Female GP2]

An overall systematic and carefully planned approach to teaching was advocated by participants to ensure that disparate learning needs were met. This required teachers to have pre-existing knowledge of participants' capabilities and weaknesses.

> 'A function of this practice is that they know who they are talking to. They've got a

Table 1. An illustration of the development of the theory grounded in the research data

Participant data
'You have to be well organised'
'If it's not a scheduled teaching time it doesn't happen'
'The teaching session is prioritised'
'You need to have the space to do it'
'Have a serviceable [practice] size'
'Easier if you have several teachers'
'Technology is an issue'
'Help from [RTP with learning plans] … worked very well'
'It depends on the atmosphere you create'
'Getting everyone engaged so it's a worthwhile exercise'
'The relationship building … is important'
'Have a helicopter view of how the interaction is going'
'Being on time … putting phones on silence'
'Useful to have the topic laid out beforehand'
'Everyone's given a little topic, so you all bring something'
'Knowing them for a while helps'
'People will usually figure out how they want to run it'
'A mixture of both is good'
'[funding] targeted toward having both kind of sessions as mandatory'
'Having more than one [learner] in the room works [financially]'
'It's a better use of time'
'Some are shy, they've got to be willing to ask the questions'
'I remember how I felt when I started my internship'
'There needs to be enough similarity of learning need'
'The leadership has to come from us'
'Have your heart in teaching'
'Your administrative staff have [to be] very much on side'

relationship to who they are teaching, so they can understand what our needs are.' [Male GPR8]

'Got this help [teaching plans from the RTP] and it actually worked very well.' [Male GP1]

'You can tell that some teachers have [planned the] session and some … just teach on the hop and don't really consider the different levels of the people in the class and what they would need to know at that stage ... it's that sort of step up level of teaching for each topic. If you just have a general chat about managing a condition it's not as helpful.' [Female GPR5]

Planning of each session highlighted the importance of assigning preparatory tasks to reduce knowledge gaps between learners at various levels.

'I would highly recommend that you prepare beforehand, that everyone does some reading … when people haven't done the work then it starts to be a bit more leeching off the other people and the dynamicism [sic] of the topic drops because people are still getting first pass information, "oh yeah, I've got to learn that" rather than when they've already got structure and then it's clarification and testing, then it's like "oh, I didn't quite get that when I read it, now it actually makes sense", pre-reading is to me, the number one experience for everybody's benefit.' [Male GPR1]

As the numbers of participants increased, attention needs to be paid to the scheduling of shared learning, especially with a part-time workforce. Access to multiple GPs who were able to facilitate as teachers was an asset.

'Teaching sessions are always at the beginning of the session, so there's no possibility of anybody being late … the teaching session is prioritised.' [Female GPR3]

'Just finding an hour or two where everyone's free at the same time and that's a barrier anyway, even if it's one-on-one. When you try and get three or four people together it multiplies.' [Male GP7]

Practice managers and other staff pointed to the need to have sufficient IT resources and space.

'The other barrier for the group stuff is the supervisors and their technical knowledge for PowerPoint or willingness to use it … if it's all notes … it becomes difficult in a larger group … so they've got to be able to adjust to that … put their resources together to match a larger group so we can put it on a larger screen so everyone can see.' [Male PM3]

'It's so congested, there's always someone in your space.' [Female PN2]

'You need to have the space to do it, at our surgery we're pretty pushed now … [if] you're talking to more than two people, it does get squeezy.' [Female PM4]

Code	Concept	Category	Theory
Organisation	Organisational/ administrative factors	Enabling factors	Ecological approach required
Planning/scheduling			
Prioritising teaching			
Space	Structural factors		
Practice size			
Number of supervisors			
IT resources/skills	Resources		
Teaching resources/support			
Creating a trusting environment			
Keeping all levels engaged			
Building relationships			
Managing interactions	Teaching and facilitation skills		
Establishing VI etiquette			
Planning teaching session			
Allocating tasks/roles			
Knowing learners' capabilities			
Ownership of process	Agency	Reinforcing factors	
Maintain some 1:1 teaching	Protected learning		
Targeted funding	Policy factors		
Cost/time efficiencies	Incentives		
Learner confidence	Learner attributes	Predisposing factors	
Learner empathy			
Learners' learning needs			
Leadership	Supervisor attributes		
Motivated GP			
Engaged administrative staff	Staff attributes		

Predisposing factors

Predisposing factors were the values, attitudes and beliefs that learners, supervisors and staff brought to the process that made shared learning more effective or more likely to occur. Not surprisingly, research participants suggested that enthusiastic leadership from GPs and a culture of encouragement were necessary to sustain the complex organisational processes needed.

'For it to work you've got to have someone who is basically driving it, who takes an interest and encourages the others along.' [Male GP6]

Moreover, there needed to be sufficient 'buy in' from all key participants: GPs' passion for teaching needs to be combined with learner acceptance of this teaching method and supportive administrative staff.

'[shared learning] has a potential to make me feel uncomfortable sometimes, but at the end of the day I just remember what it was like to be a medical student and how I felt when I started my internship.' [Female GPR3]

'Getting the registrars interested, focusing on their learning plans early on, getting them involved, making sure that they know why you're going to teach that way.' [Female GPR7]

'You have to engage your administrative staff and have them very much on side with the concept.' [Male GP1]

Reduced variability between participants helped increase the benefits of shared learning. The disparity in learning needs and length of time at the practice were particularly pronounced between senior registrars and medical students. This could make it difficult to coordinate schedules and content of teaching.

'The problem with VI ... [occurs when] you've got a big gap between your knowledge bases. If I'm a GPT3 and I had some medical students, I'm not entirely sure I'd gain much, whereas if I had a GPT1 or 2 or a PGPPP, especially if they had knowledge in that area that we were discussing it would be more beneficial. So … how many degrees of separation in your learning have you got in the same room?' [Female GPR4]

'[PGPPPs'] needs were much more basic [than registrars] … and they were a 10 week, not a 6 month turnover. The second [PGPPP] needed the same stuff as the first and the registrars couldn't possibly have the same session again at such a basic level so [shared learning] was inappropriate after the first 10 weeks.' [Female GP4]

Reinforcing factors

Reinforcing factors were defined as rewards and incentives that encouraged or sustained shared learning in general practice.

Interestingly, participants maintained that traditional one-on-one teaching permitted the inclusion of learning needs that could not be met in a shared learning format.

'[you can't] do too much VI because you'd lose that [ability to address] individual needs that's so important, and sometimes you do need a one-to-one with the teacher as mentor more than just the content.' [Female GP4]

'A separate session where I have half an hour to chat about my issues would be useful, because the real issue [with VI alone] is that there's just no teaching time for whatever issues I have.' [Female GPR6]

Many GPs noted that funding considerations, together with potential time efficiencies may favour shared learning.

'You get paid X dollars/hour for teaching a registrar and X dollars for teaching the PGPPP and if you do them both in the same session you get 2X, so it's financially effective.' [Female GP4]

'Easier to run the session with two together than to run two separate ones, because of limitations on my time. It's an efficiency thing.' [Female GP2]

Discussion

The enabling, predisposing and reinforcing concepts identified in this study are similar to the ecological approach taken by Green and Kreuter[21] to describe the combined determinants of behaviour[22] on multiple levels.

While previous research noted that lack of teaching skills was a barrier to vertically integrated teaching[4] and that GP supervisors should develop their group skills,[10] our findings are that shared learning requires a different skill set to individual teaching including the need for systematic planning and management of nuanced group interactions.

This study shows that many learners desired ongoing individual contact with their supervisors in addition to shared learning. Buchanan and Lane's[10] British participants also requested 'a balance of one-to-one and joint activities'. Glasgow and Trumble[11] also identified that wide disparity among learners could be a barrier to effective shared learning. Our findings suggest that well planned prior allocation of tasks could be used to bridge the knowledge gap.

Participants' roles may have influenced their view of facilitators to shared learning. Both supervisors and learners felt that small group facilitation skills were important, and that shared learning sessions would be easier to run or more successful if there was less variability in the learning needs of learners in the group. Supervisors highlighted the need for leadership, and for cost and time efficiencies. Supervisors, practice managers and practice nurses were concerned with sufficient space.

This small qualitative study suggests that many positive relational and organisational facilitators are needed for successful shared learning. Given the intertwined nature of the themes identified, we suggest that multi-level interventions[22] may be more successful in increasing its uptake in clinics.

Implications for general practice

An ecological approach that addresses enabling, predisposing and reinforcing factors may provide the most effective means to support shared learning in general practice clinics. Strategies may include:

- support for GPs in the distinct role of leading and managing small group teaching
- access to resources that bridge learners' disparate needs and schedules, including structured pre-reading
- concurrent provision of shared learning and traditional one-on-one teaching.

Authors

Thea van de Mortel PhD, is Research Director, North Coast GP Training, Ballina, New South Wales and lecturer, Southern Cross University, Lismore, New South Wales. theav@ncgpt.org.au

Peter Silberberg MBBS, DipPubHlth, FRACGP, is medical educator, North Coast GP Training, Ballina, New South Wales

Christine Ahern MBBS, FRACGP, is Director of Training, North Coast GP Training, Ballina, New South Wales.

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correspondence **afp@racgp.org.au**