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Getting real in the community: Evaluating the "making a difference" interdisciplinary social engagement project

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Abstract

Purpose
It is increasingly recognised that medical schools have a duty to the communities they serve, and that there are many benefits to be gained from student social engagement within those communities. There is also ongoing interest in the value of inter-professional working. Social engagement takes many forms, and benefits to student learning are likely to be multi-faceted. We conducted a detailed qualitative analysis of a "Making a Difference" community project; to investigate pedagogic benefits, to identify how students could indeed 'make a difference' with a population with complex health needs, and to explore the value added by inter-professional working. In framing the character of social engagement, we classified activities into community-orientated, community-based and community engaged education and considered our findings within these contexts.
Methods
The project provided interdisciplinary experiences for student volunteers from medicine and nine other healthcare disciplines (ten professions in total), in attachments to three community-based providers. In addition, students collaboratively organised and delivered a one-day health promotion event for the entire community at a health facility in an area of high social deprivation. Extensive qualitative data were collected from student diaries, interviews and focus groups with students and provider organisation staff. The findings were analysed thematically using NVivo, and as a first level of analysis were mapped onto a modified Kirkpatrick framework of evaluation.
Results
Students gained new insights, knowledge and skills; these arising from both the community experience and from working with different disciplines. Analysis identified pedagogic benefit at all 4 Kirkpatrick levels. Students were able to contribute in diverse and sometimes unexpected ways. Our data suggest that many other benefits such as development of deeper relationships, opportunities for communication of feelings, breaking down of class and professional barriers resulted from the experience.
Conclusions
The two activity components of the project (attachments and health promotion event) provided distinct

but complementary experiences. It is clear from the data that students enjoyed the often new experience of working with peers from other disciplines. They also enjoyed, but were greatly challenged by, working with service users with multiple and complex needs, such as when they were placed with providers working with homeless persons for example. There was strong evidence of new learning, with clear examples of change of practice resulting from these experiences. We considered that the project provided mostly community-based, but also some community-engaged, experiences. Philosophically, sending healthcare students into communities represents a radical change of practice for medical and nursing schools, and our second level of analysis has included theoretical attention to this idea. Further work is ongoing.

Keywords: community engagment, community placements, social engagement, interprofessional placements

Article

Background

Just as patients individually are rejecting traditional paternalistic models of care, so communities are expecting more involvement in how medical and healthcare students are trained and what goes into the curriculum. The notion that people should be involved in their own care is not new; the community-orientated primary care movement built on the work of Kark in S Africa (Geiger 1993) has long espoused “citizen input” in to local health decisions. In mainstream medical education, however, taking students ‘out’ into local communities and welcoming curriculum input from those communities still represents a major change in focus.

But healthcare is always at the forefront of change; reflecting shifts in broader social, cultural, political and indeed economic contexts. If medical education is to prepare its students for the world of medicine, it must adapt accordingly. Some bodies of thought familiar to medical educators are useful in helping educators to understand this. Social-cultural activity theory, for example, dates back to the 1920’s and the work of Vygotsky (Engestrom, Meittinen & Punamaki,1999) who stated that all learning occurs within, and is interpreted by, the social and cultural milieu in which it occurs. Vygotsky’s ideas can be traced forward to the ‘situated learning’ theories of Lave and Wenger (Lave & Wenger 1991). In-depth critique of these theories is beyond the parameters of this paper but their relevance here is that, as social and cultural influences change, the practice of education must be open to adaptation reflecting its broader contexts.

For some commentators this has not been happening fast enough. Medical schools have been criticised for sticking with outdated paradigms (Boelan 2002), for their lack of orientation to the needs of their communities (Boelan & Heck 1995), and for not producing the doctors that are needed for 21st century practice (Frenk, Chen, Bhutta et al 2010). Various degrees of social engagement or community involvement have been proposed as remedies (Wen, Greysen, Keszthelyi, Bracero & de Roos 2011). Three models of community involvement have been offered (Strasser 2010). Community-orientated medical education includes activities that address topics in community health but still take place in traditional academic settings. Community-based medical education describes activities that take place in community settings but do not directly engage the community in the design, conduct and/or evaluation of these activities. Finally, Community-engaged medical education activities directly engage members of a community in their design, conduct and/or evaluation so as to meet the needs of the community in

some way and to enhance the experience or outcomes of the learners involved.
We present here an evaluation of a primary care based, inter-disciplinary social engagement project in an area of social deprivation in Plymouth UK. Students from ten healthcare disciplines volunteered to work with three organisations working with a primary care practice, and also led a health promotion event for the entire community. Our research questions were 1) what was the pedagogic value of this social engagement? (e.g. what did students learn?), 2) what was the value to providers and their clients of these placements? (what did students give?), and 3) what added value could be gained from inter-professional community attachments?

Methods

The University of Plymouth medical school partners an academic primary care practice in Devonport, Plymouth. This is the area of highest social deprivation in that city and one of the most deprived neighbourhoods in England. The practice has developed strong links with its community and with other local organisations. Those links were used to provide attachments for pairs of medical and other healthcare professions students. The organisations providing placements were Shekinah Mission (a charity providing opportunities for recovery from homelessness, drug and alcohol issues, offending behaviours or mental ill health); Devonport Lifehouse (a Salvation Army Hostel for homeless people) and; Plymouth Community Homes (a social housing provider). In addition, all students were invited to lead a one day health promotion event, involving staff from all three organisations and delivered for the entire patient community at the Devonport practice.
The activities were voluntary and students were recruited via advertising around the University as well as social networks. Our initial concerns about limited recruitment were proven wrong as activities became quickly oversubscribed. We recruited a total of forty-two students from medicine, adult nursing, mental health nursing, child nursing, dietetics, optometry, occupational therapy, paramedicine, physiotherapy and podiatry, resulting in ten disciplines in total.

Ethical Approval

The project was approved by the University of Plymouth Ethics Committee. Approval was subject to data being collected from students and staff: no direct patient data were obtained.

Data Collection

Data were collected from students and staff via reflective diaries (students only), face-to-face interviews and focus group discussions. Because healthcare students at our University are widely dispersed on placements, we included synchronous on-line focus groups using “Skype” to maximise participation. In addition we collected photographic material from the health promotion day for visual prompting, carried out an on-line survey of students post placement, and collected spontaneous comments from patients that were fed back via the practice. These multiple datasets were triangulated at the analytic stage.

Analysis

All data were transcribed and entered onto a data analysis software package, NVivo 10. Data were analysed via an iterative approach of exhaustive reading and re-reading by all three investigators (Glaser

& Strauss, 2012). Constant comparison of the various resulting texts produced emerging categories. These were then iteratively refined, until all data could be located in themes and sub themes. This process was continued to saturation point, when no new findings emerged (Stern & Kerry, 2009). As a final quality assurance stage, the entire data set was made available to an academic in a separate institution who had not been involved in data collection, in order to triangulate the analysis.

Results

Pedagogic benefit

In order to provide a rating for the pedagogic value, where possible we applied the Kirkpatrick levels (Kirkpatrick & Kirkpatrick, 2006) to the results, with themes indicated. We recognised that Kirkpatrick levels, originally applied to business, are often inadequate for evaluating medical education interventions (Yardley & Dornan, 2012), but they are widely known by educational audiences and so have popular currency. We therefore chose to include this stage of descriptive analysis before moving onto more theoretical consideration, which is reported in a separate paper.

Themes emerged as follows: Student benefit (SB), Community benefit (CB), Enhanced knowledge and skills (EKS), interdisciplinary learning (IL), New insights and emotions (NIE). We have also indicated the source of the data, student interviews (SI), Community interviews (CI), student focus group (SFG), community focus group (CFG), student diary (SD). Student survey (SS).

Where possible we have included the healthcare discipline of the student, medical student (MS), nursing student – this category includes adult nursing student, child nursing student and mental health nursing student (NS), paramedic (PM), occupational therapy student(OT), Podiatry student (POS) physiotherapy student (PS), Dietetic student (DS), Optometry student (OS). Community staff comments are indicated by (CS).

Brackets after quotes show theme/data source/student type.

Kirkpatrick Level 1, reaction, satisfaction

Participation and reaction of course rate lowest in the Kirkpatrick “hierarchy”, but as educators, we have seldom been involved with an activity rated so highly for enjoyment, as these quotes demonstrate:

So yeah I just thought it was very, oh I just thought it was brilliant, absolutely brilliant. (SB,SI, NS)

I really enjoyed the whole kind of process of it, I think it was really, really fun, just being able to chat to people. (SB, FG, MS)

The only thing that could have improved the experience would be more time there! (SB,SD, OT)

This was a voluntary experience for students and it was over-subscribed. There was an overwhelming sense that such experiences would benefit other students and should be more widely available:

Found this to be a thoroughly worth-wile experience. would be very happy to participate in another social engagement activity of this kind. I believe there is a great deal more for me to learn and give through experiences of this kind and I strongly feel that others would benefit significantly from the same/similar opportunity. (SB, SD, MS)

Students felt it provided experiences different to those of clinical placements:

It allows unique learning opportunities quite unlike placement and I would definitely get involved in similar projects in the future. (SB, SD, MS)

I thought the placement with Plymouth Homes people was particularly valuable just in terms of it’s not something you generally get to see as a medical student on placement. (SB, SD, MS)

They also noted that it allowed students to ‘rehearse’ their particular disciplines:

I felt I had progressed as a student nurse as I was able to put my learning into practice. I would definitely get involved in any of the projects in the future. (SB, SD, NS)
I felt really proud to be a nursing student throughout the day as I was given great respect by everyone I met. (SB, SD, NS)
Oh I think what she had was a relative afferent pupillary defect, which is something that's really rare so they were all like really excited, oh my God we've seen this, it actually exists. (SB, FG, OS)
Reaction went beyond mere enjoyment: students were clearly moved and challenged by the experience.
I was just like ooh, this is brilliant, I had shivers going down my spine and it really impact, it really did have an effect on me cos I went home and cried the night I did the soup run. (SB, SI, MS)
Very useful, very interesting and slightly frightening. (SB, SD, NS)
These experiences were not only greatly enjoyed by students, they were clearly powerful and transformative learning experiences, as the following themes illustrate.

Kirkpatrick level 2: learning. Benefits of Community learning
This level includes factual or skills learning, and also change in attitudes. Students felt that they had learned much from the community experiences, within all the domains of knowledge, skills and attitudes:
She needs to cry and it's all part of training that you can't simulate in the skills lab, you know tears and things .. actually for us that was a great way to practice those skills of just sitting down and listening, and just allowing her to be able to share her feelings and emotions really which was great cos you don't get that in skills, and you don't always get time on the wards. (EKS,FG, NS)
We are not taught any of the lessons I learnt from this experience anywhere in our curriculum. This includes: effective communication with professionals and students from different healthcare disciplines, appreciation and understanding of the different roles that each healthcare profession has in our system … and talking to service users about healthy living, and motivating people to make changes in their life to better their health and wellbeing. (EKS, survey, MS)
But student comments demonstrated the power of experiential learning to include more than just cognitive domains:
I think it gives you, I can't think of the word for it, what's the word, confidence, you know brings on your confidence like you know with your communication skills. (EKS,survey,MS)
The most important skill I think I kind of improved was not really a skill as such but I was able to draw on some compassion; using compassion isn't exactly something you can teach but it's definitely something you can learn. (EKS,SD, MS)

Insights (Kirkpatrick 2, modification of attitudes and perceptions)
The theme accorded the most data was "new insights, emotions and feelings". We placed this into level 2, but "change in attitudes" really does not do justice to the overall student response:
Many things I learned just from speaking to the people .. I found it fascinating, the relationships between some of the workers.. they had such a good relationship, I couldn't see a negative impact on having a less professional relationship with a patient …that is the kind of relationship I would like to have with patients, and that is something that I found out which wasn't, which couldn't really specifically be taught on our course. (NIE, SD, MS)
Having communication skills in Clinical Skills did not prepare me for this. I wish I had this opportunity earlier and I now don't feel as if I have been sheltered and hidden. (NIE,SD,MS)

Students were often deeply challenged by what they saw:
I went with a mental health nursing student and we did some cooking. I felt that this student was MUCH better at communicating with the service users than I was! (NIE, SD, MS)
I see it as an interaction where we must get the information from the patient and them through this we find a diagnosis and we treat them, yet actually having the ability to talk to someone is an underrepresented and underappreciated skill that I feel that I must constantly develop. (NIE, SD, MS)
Some found the insights they gained very moving, and there was evidence of a breaking down of barriers arising from differences in social class, which remains a reality in the UK (Savage 2015)
He wanted what we all want, yet it seemed so far out of his grasp. (NIE, SD, NS)
It also gave me a lot more compassion for people who are on the street and people who do have alcohol and drug problems. (NIE, SD, PM)
some of the stories that this gentleman told me just shocked me and were quite difficult to hear. (NIE, SD, MS)
Some of the things he has faced in his life were just unimaginable to me. (NIE,SD, NS)

Benefits of inter-professional learning (Kirkpatrick level 2)
A powerful theme, drawing on different data sources, related to how useful and enjoyable students found the inter-professional nature of the experiences:
It was lovely to work with medical students, something we as student adult nurses rarely have the opportunity to do. (IPL, SD, NS)
personally I learnt most from the OTs, I don't know if anybody else did but the stuff that they had there was really cool and like I had absolutely no awareness at all about what they did. (IPL, SD, MS)
There was evidence that inter-professional learning was effective in leading to enhanced collaborative practice; something of a holy grail in the professional education literature. (Lutfiyya, Brandt & Cerra, 2016)
I enjoyed being able to refer patients like this lady, to my colleagues within the other specialties: including other professionals .. where the boundaries of my knowledge or scope of practice were exceeded. (IPL, SS, PS)
I worked alongside a medical student and an Adult nursing student. We presented the topics of Drugs, Alcohol and Tobacco. I felt confident to contribute in my own area of speciality, ie from a mental health perspective, while the other students were able to contribute from a more medical model perspective. (IPL. SD, NS mental health)

There was strong evidence of the breaking down of professional barriers, both in terms of working together…
Speaking to the podiatrists was very useful to consolidate my knowledge as I have exams approaching and we often cover similar areas. For instance we discussed some of our anatomy and how it links to particular conditions. (IPL, SFG, MS)
It was great to have the opportunity to speak with other students especially from other disciplines as I learnt that they shared similar feelings of nerves and stress in their courses, but yet also shared the same passion for caring for others (IPL, SD, NS)
…and socially:
I think it's absolutely definitely, and I know that lots of my friends also benefited from knowing other health professions just on a social level. (IPL, SD, PM)

Change in professional behaviour (Kirkpatrick level 3)

Within the context of medical education (although not originally) Kirkpatrick's levels are generally viewed in hierarchical terms, with levels building progressively. Our data, from students of all disciplines, strongly suggests that learning from the project went beyond the acquisition of knowledge and skills. Our analysis captured ways in which students' behaviours were changed by the experience:

it's really helped me to kind of understand the social circumstances of people … I've kind of found a real niche for it actually, kind of something I really want to go into in the future, which is really positive so thanks for that. (NIE, SFG, NS)

It allowed for service user contact, in an unfamiliar environment to that of Paramedicine. This forced me to alter my approach with patient communication. (NIE, SD, PM)

There was evidence of behaviour change in relation to various aspects of care, but particularly around communication:

I found that my ability to start up conversations, confidence in starting social interactions could be improved and certainly was improved simply by talking to some of the clients. (NIE, SD, MS)

Conversations with the service users seemed to come much more naturally with the nursing student than they did with me. From just listening to her, I have learnt a few skills that I would like to transfer to my own discussions. (NIE, SD, MS)

Even to the extent of potentially shaping career aspirations:

I have always enjoyed public health as a topic but this day has really solidified that with me and I am now looking for public health as a career choice in the future. (NKS, SD, MS)

Benefits to patients (Kirkpatrick level 4)

The "top" Kirkpatrick level is that education brings benefit to patients. This links to our research question concerning the value to providers of social engagement: what can students give? Our data suggest that social engagement is very much a two way process, and we found numerous examples of students who had been able to make valuable and tangible contributions to patients' wellbeing:

One individual wanted help to get fit again and so I provided a leaflet and spoke about exercise they were previously involved in and the types of things that may be suitable and enjoyable for them. (CB, SD, PS)

I spoke with a visitor who was worried about her son as he was vegetarian and at a low BMI. I spoke with her about protein sources as this is often a problem with vegetarians and made some suggestions to her. (CB, SD, NS)

Being able to communicate with them regarding healthy eating advice which is tailored to them and their concerns is key to dietetics so in that respect the day was a fantastic experience. (CB, SD, DS)

A member of the public attended a health mot session and was able to unburden all her anxieties about her health and i was there to support her and give the care so desperately needed. (CB, SI, NS)

It was all about someone with mental health problems.. so I found that really, really interesting and I was, he was really, really happy with what I suggested. (CB, SI, NS)

There was also clear evidence that the presence of students had helped staff in the three provider organisations:

So as an organisation we have capacity of bright young minds coming in, bringing a bit of diversity in.. make the residents' world bigger.. it's been a magnificent experience.. two very capable young people who brought some skills into the place that we just never experienced before. (CB, CFG, CS)

They've actually done a proper assessment for the first time using the OT tools of someone's situation in life and pinpointed the impediments.. so I think they've put the wheels under a few residents thorough the OT approach, definitely. (CB,CFG, CS)
I told the group I was looking at Animal Assisted Therapy for people with mental health problems, which sparked further interest and conversation. The staff .. were impressed with my ideas and this has given them some ideas for the future. (CB, SD, NS)
The results presented here represent a small part of the rich dataset collected. They have been chosen to represent our data and to illustrate our findings. We are confident that we have as faithfully as possible represented the views and experiences of both students and staff, and we consider that our analysis has provided cogent answers to our original questions.

Discussion

Our first research question was about the educational utility of social engagement experiences for students. There is no doubt from our data that such experiences can be extremely popular with students; feedback was overwhelmingly positive and the overall feeling was that such experiences should be more widely available. We have also shown that community based social engagement can produce pedagogic value at all four levels identified by Kirkpatrick. However, this rather dry and descriptive classification does not do justice to the depth of the learning experiences we recorded, and there is a level of experiential learning evident in our data that would be very hard to reproduce from more traditional, classroom based activity:
I cried cos it was my first time I'd gone out and these two guys stood out to me more than, I know everybody stood out to me, but those two in particular because they were so young, and I did go home and I cried and I just thought, it makes you appreciate what you've got. (NIE, SD, NS)
Cos I was really worried about them, they stood out to me and just to know that they were alright and actually get introduced to them, and you know to get my hand shook again, cos the night of the soup run I actually went up and seen them with two other people and they shook my hand. (NIE, SD, NS)
I found it profoundly insightful and satisfying by conducting these brief assessments, making suggestion on how patients could improve their overall health. (NIE, SS, MS)
Some of our most compelling data described the intense satisfaction students gained from working together with colleagues from other disciplines. Many students commented on the interdisciplinary barriers that still exist between medical, nursing and other healthcare professions. This tension was reflected in our data:
I think medicine like in terms of all healthcare specialities has been quite hierarchal, like hierarchy of approaches and that is something that we need to move away from and that's old medicine like we need to like adopt this more holistic approach where you guys like everyone does their own bit, everyone contributes to this patient as a whole person. (IPL, SD, MS)
It was a fantastic opportunity to get work alongside medical students, so there's still some stigma around the divide between doctors and nurses so it was refreshing to hear positive comments from medical students and see how they were looking to build bridges with nurses. (IPL, SD, NS)
Our data provides some fascinating insights into IPE, for example many medical and nursing students commented on how much they had learned from working with Occupational Therapy students, a profession they freely admitted to knowing very little about before these placements. There were also many examples of medics and nurses learning from paramedics, podiatrists and optometrists, as well as from each other, within the social engagement project.

Our third research question concerned the value to community organisations of student attachments. On the face of it, we reasoned that such attachments could be a 'win-win' situation: students would bring their talents, enthusiasm and time whilst learning valuable lessons. We nevertheless had to consider concerns that they might 'get in the way', fail to fit in and even irritate organisational staff and patients. In the event these fears were unfounded. Staff overwhelmingly reported enjoying having students working alongside them, and many reported that students had been able to contribute directly and positively to the lives of their service users:
Well it definitely did make a difference. people talk about the students here and they often ask me when are we going to have more students here. (CB, SI,CS).
I think as a social experiment has been very, very positive, yeah bring them on is what everybody would say I think. (CB, CFG, CS)
We gain capacity, I mean just as a cold fact, got more bodies round the place, and people who haven't got to be bothered with paperwork. (CB, CI, CS)

Limitations of this study

Application to participate in the community experiences and the health promotion day was voluntary so our student sample may not have represented the student body as a whole. We endeavoured to compensate for this by offering as much flexibility as possible in placement times, and we advertised the placements widely among medical, nursing and healthcare students. Forty two students were studied, between them representing ten healthcare disciplines, so sample size was relatively small and results may not be generalizable. We also recognise that our Ethical Approval only allowed for study of students and staff and not service users directly, so findings relating to impact (our second research question: what can students give?) were indirect and provided by proxy.
Despite these limitations, our data demonstrates the lived experiences of a mixed cohort of medical, nursing and healthcare students who have been positively affected by this social engagement initiative. Furthermore our findings have shown that, for many, it was a transformative process engendering behaviour change. More theoretically oriented work, critically exploring different models of community involvement, involving more students at more sites, and including feedback from both patients and service users is now underway.

Summary

Just as our students individually found that social engagement activities helped them to understand and share with patients, we believe our work has shown that community-engaged medical education offers a way for medical schools to understand and respond to the needs and wishes of their communities. On the basis of our experiences, we suggest that this could represent both a practical and 'moral' paradigm shift in medical education, and this is something we explore in a further paper.

Take Home Messages

Medical Schools have been criticised for ignoring the needs of the communities that they serve and for failing to produce the sorts of doctors that the community needs.
Various forms of community involvement have been proposed to counter this problem.

We present a detailed qualitative analysis of the pedagogic and social value of interprofessional community placements based in general practice and three community providers.
Our data shows pedagogic benefit at all Kirkpatrick levels, suggests that students can make a real difference in an area of high deprivation and highlights the value of interprofessional working.
We consider that community invovlement in medical education presents a paradigm shift and we plan to explore this in future work.

Notes On Contributors

Dr Richard Ayres is a practicing GP at Cumberland Surgery in Devonport, Plymouth and Lead for Population Health at Plymouth Peninsula Schools of Medicine and Dentistry. His academic interests include most aspects of medical education , but particularly around health inequalities, primary care and social engagement.
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Bibliography/References

Boelen, C. & Heck, J. (1995). Defining and measuring the social accountability of medical schools. Geneva: World Health organization.
Boelen, C. (2002). A new paradigm for medical schools a century after Flexner's report. Bulletin of the World Health Organization, 80(7), 592-593.
Engeström, Y., Miettinen, R., & Punamäki, R. L. (1999). Perspectives on activity theory. Cambridge: Cambridge University Press.
http://dx.doi.org/10.1017/CBO9780511812774
Frenk, J. Chen, L. Bhutta, Z. Cohen, J. Crisp, N. & Evans, T. et al. (2010). Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. The Lancet, 376(9756), 1923-1958.
http://dx.doi.org/10.1016/S0140-6736(10)61854-5
Geiger, H. (1993). Community-oriented primary care: the legacy of Sidney Kark. Am J Public Health, 83(7), 946-947.

http://dx.doi.org/10.2105/AJPH.83.7.946
Glaser, B. & Strauss, A. The constant comparative method in qualitative analysis. (2012). In Glaser, B. & Strauss, A. The discovery of grounded theory: Strategies for qualitative research. Chicago: Aldine Transaction.
Kirkpatrick, D. & Kirkpatrick, J. (2006). Evaluating training programs. San Francisco, CA: Berrett-Koehler.
Lave, J. & Wenger, E. (1991). Situated learning. Cambridge: Cambridge University Press.
http://dx.doi.org/10.1017/CBO9780511815355
Lutfiyya, M. Brandt, B. & Cerra, F. (2016). Reflections from the Intersection of Health Professions Education and Clinical Practice. Academic Medicine, 91(6), 766-771.
http://dx.doi.org/10.1097/ACM.0000000000001139
Stern, P. Kerry, J. Grounded theory methodology. (2009). In Morse, J. Stern, P. Corbin, J. Bowers, B. Clarke, A. & Charmaz, K. Developing grounded theory: The second generation (developing qualitative inquiry). London: Routledge.
Savage, M. (2015). Social class in the 21st century. Penguin UK.
Strasser, R. P. (2010). Community engagement: a key to successful rural clinical education. Rural Remote Health, 10(1543), 1-8.
Wen, L. Greysen, S. Keszthelyi, D. Bracero, J. & de Roos, P. (2011). Social accountability in health professionals' training. The Lancet, 378(9807), e12-e13.
http://dx.doi.org/10.1016/S0140-6736(10)62314-8
Yardley, S., & Dornan, T. (2012). Kirkpatrick's levels and education 'evidence'. Medical education, 46(1), 97-106. http://dx.doi.org/10.1111/j.1365-2923.2011.04076.

Appendices

Declaration of Interest

The author has declared that there are no conflicts of interest.