

# Can Technology Replace Travel as a Means to Learn about Global Health? Views from GP Trainees

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## Abstract

**Aims and objectives:** Travelling on international medical electives has been a central component of medical education for many years but questions have been raised regarding the ethics, equity in opportunity and educational value. In 2020, the COVID-19 pandemic restricted almost all forms of travel and forced medical educators to think in new and innovative ways about how healthcare staff could gain a global perspective in their training. In this report we assess whether doctors are open to learning about global health and developing intercultural competencies through technology, rather than travel, on Virtual International Exchanges (VIEs).

**Method:** A short mixed methods qualitative and quantitative questionnaire was completed by 60 qualified doctors on a General Practice Vocational Training Scheme in Dorset, England.

**Results:** The majority of respondents agreed that VIEs would be a beneficial learning experience and were personally interested in participating. GP Trainees perceived benefits for both their relationships with patients and colleagues. In particular, they thought VIEs offered a means to learn about different health care systems; impact of culture on health; and generic skills such as communication and an ability to challenge the status quo.

**Conclusion:** Technology Enhanced Learning has the potential to replace, or at least enhance, traditional approaches such as travelling on international electives as means for doctors to develop a global perspective on healthcare.

**Keywords:** Global health; Virtual international exchanges; Primary care education; Postgraduate education

## Introduction

Globalisation has a significant impact on the delivery of healthcare through an increasingly interconnected world. Even before the COVID-19 pandemic, there was a growing recognition that all doctors need up-to-date, postgraduate training in global health in order that we develop a medical workforce that is 'fit for the future' [1,2]. Traditionally, doctors developed their knowledge of global health through medical electives overseas. These form a significant component of medical training with UK medical students alone spending an estimated 350 years elective time in low-to-middle income countries every year [3]. Research has shown that travelling to participate in international exchange programmes can raise awareness of global health and tropical medicine, promote intercultural competency and foster generic professional skills such as improved communication [4,5]. However, travelling abroad for medical education has both financial

and environmental costs. Furthermore, the opportunity to participate in international electives was inequitable with more involvement from doctors from high income countries and multidirectional exchanges less common [6]. International exchanges were also more accessible for young doctors at the beginning of their medical careers and those approaching retirement, with mid-career doctors more likely to be limited by family and/or work commitments. There has also been some criticism of the organisation of traditional international electives, with unstructured learning objectives, patchy supervision, and little consideration given to the impact on host healthcare systems [3,7,8]. As a result, there have been calls to reconsider the educational value and ethical implications [3,7].

Travelling restrictions during the COVID-19 pandemic forced medical educators to innovate, to embrace new pedagogical approaches and re-explore the potential of 'internationalisation at home' in medical curricula. Online teaching became the norm for many medical training programmes in 2020/21 and technology may also enable us to develop a global perspective independently of travelling overseas - through 'virtual international exchanges' (VIEs). VIEs are similar to COIL (collaborative online international learning) [9]. A VIE uses a virtual platform to facilitate the exchange of cultural and medical experiences between healthcare professionals and has been implemented in a variety of ways. They typically include small group discussions using video conferencing or digital platforms and can also incorporate sharing web based learning environments and participation in virtual journal clubs [10-14]. The educational benefits have been shown to include enhanced intercultural competency, communication skills and understanding of different healthcare systems [9-16]. However, almost all of these studies have been undertaken with nursing students and a few with medical students. To the best of our knowledge, there is only one report of a VIE between qualified doctors which comprised of 4 Zoom calls between staff in tertiary hospitals during the COVID-19 pandemic [16]. The logistics of establishing high quality VIEs can be practically difficult and time consuming. Challenges include the practicalities of working in different time zones, internet connectivity and appropriately matching participants working in different healthcare systems. There are educational considerations such as defining learning objectives, evaluating benefits on difficult to measure skills such as intercultural competency and deciding whether exchanges should be formative or summative. Furthermore, in a number of the published pilots participants were volunteers who were interested in being involved, and there was resistance from others who felt they had already acquired intercultural competencies, or that VIEs were too time consuming, or they would rather learn through lectures [10]. In view of this, as a preliminary to developing a VIE programme as part of our GP Vocational Training Scheme, we explored whether qualified doctors, specialising in primary care, would be interested in participating. To the best of our knowledge, there are no studies exploring whether qualified doctors would perceive VIEs to be useful and whether they think global health competencies could be gained virtually rather than by travelling overseas. Our main objectives were to assess GP trainees' perceived competence in global health, its importance to them, and whether they were interested in participating in a virtual international exchange programme. We also explored whether there were differences in opinions between doctors who graduated from the UK and international medical graduates (IMGs) who, by definition, already had a career that was enriched by training and/or working in different countries.

## Methods

### Study population

The cohort of doctors (n=138) on the Health Education England (Wessex), Dorset GP Vocational Training Scheme were included in

the study. All were asked to complete a questionnaire electronically on the SurveyMonkey platform and given a period of one week to respond. Invitations were sent via email from the trainee administrators.

### Measures

The survey was designed to rate the participants perceptions and priorities about global health learning. Doctors were asked to rate the extent to which they agreed or disagreed with the following statements using a 7 point Likert scale (strongly agree, agree, somewhat agree, neither agree nor disagree, somewhat disagree, disagree and strongly disagree):

- (1) It is important for UK GP trainees to learn about global health.
- (2) It is important for UK GP trainees to develop 'intercultural competence'.
- (3) VIEs could enhance GP training in the UK.

Intercultural competency was defined for them as 'the ability to function effectively across cultures, to think and act appropriately, and to communicate with people from different cultural backgrounds'. Doctors were also asked to rate their knowledge of global health and their own intercultural competence as very good, good, average, poor, very poor. Participants' views on VIEs were explored further in five free text questions:

- (1) What would UK GP trainees gain from taking part in VIEs?
- (2) How could participation in virtual international exchanges enhance the quality of health care you give to your patients here in the UK?
- (3) How could participation in virtual international exchanges impact on your ability to work with international colleagues here in the UK?
- (4) Practically, have you any ideas on how virtual international exchanges could work?
- (5) Can you foresee any challenges, or barriers, to the success of virtual international exchanges?

### Data analysis

All survey data was anonymised and inputted into Microsoft Excel then analysed with descriptive statistics. Authors familiarised themselves with the free text responses and NVivo (v11) software was used to conduct thematic analysis. Responses were coded by author EL and emerging themes and subthemes were discussed within the research team (EF and AK) to allow an interpretation that draws together the key patterns in the data. The research team included clinical academics, including a Dorset GP trainee with academic experience who did not take part in the survey.

## Results

60 doctors responded to the survey (response rate = 44%). 75% female and 25% male. They varied in age: 27% aged 20-29, 52% aged 30-39, 18% aged 40-49 and 3% over 50 years. 35% were in their first year of specialist GP training, 26% in their second year and 38% in their final year.

33% were international medical graduates (IMGs) who gained their primary medical qualification outside the UK. 80% of these doctors had also practised medicine outside of the UK. 85% would consider working outside of the UK again. Only 25% doctors who qualified within the UK had practised medicine outside the UK and 100% would consider working outside the UK in the future. 3 participants only provided demographic data and did not complete the remainder of the questionnaire.

Participants' responses on the Likert scales were grouped in those who 'agreed', 'neither agreed nor disagreed' and 'disagreed' (Table 1).

The majority of GP trainees reported that it was important to learn about global health (97%) and develop intercultural competency (98%) and the pattern was similar for IMGs and UK graduates (Table 1).

Interestingly, only 26% doctors rated their knowledge of global health as 'good' (33% IMGs and 23% UK graduates) and 28% rated it as 'poor'. 54% rated their intercultural competence as 'good' and 7% as 'poor'. This was the question that showed the largest gap between IMG and UK graduates with 72% IMGs rating their cultural competency as good compared to only 46% UK graduates.

The majority of doctors (76%) agreed that VIEs would be a beneficial learning experience with only 9% disagreeing and 15% unsure. Overall 62% were personally interested in participating, 29% unsure and only 9% were not interested: 59% of the UK graduates and 67% IMGs were interested in participating in VIEs.

65% participants provided free text responses. The benefits for VIEs fell into three broad themes about the benefits of VIEs: Recognition of the impact of globalisation and global connectivity on healthcare; Improving global knowledge through VIEs could improve clinical care for patients; Improving cultural awareness through VIEs could improve working relationships with colleagues from different backgrounds. Potential logistical challenges were also raised.

### Benefits of Virtual International Exchanges

Doctors acknowledged the reality of living and working in an interconnected world. They highlighted how the recent pandemic has the potential to improve global connectivity in medicine further through technology and virtual meetings. A number commented on how technology offers bidirectional learning.

*"The world is becoming a global village and mobility across continents is more prevalent than ever ..."*

*"The positive thing that we have learned from this pandemic is virtual consultations.... Hence, we are capable of extending this service globally..."*

**Table 1:** GP trainees' ratings of the importance of global health, intercultural competence and VIEs.

		Agree	Intermediate	Disagree
It is important for UK GP trainees to learn about global health	IMG	17/18 (94%)	0	1/18 (6%)
	UK	38/39 (97%)	1/39 (3%)	0
	Total	55/57 (97%)	1/57 (2%)	1/57 (2%)
It is important for UK GP trainees to develop 'intercultural competence'	IMG	17/18 (94%)	0	1/18 (6%)
	UK	39/39 (100%)	0	0
	Total	56/57 (98%)	0	1/57 (2%)
VIEs could enhance GP training in the UK	IMG	10/15 (67%)	3/15 (20%)	2/15 (13%)
	UK	25/31 (81%)	4/31 (13%)	2/31 (7%)
	Total	35/46 (76%)	7/46 (15%)	4/46 (9%)

\*31/39 UK and 15/18 IMG trainees answered the VIE question.

**Table 2:** GP trainees' self ratings of their global health knowledge and intercultural competence.

		Good/Very good	Average	Poor/Very poor
How would you rate your knowledge of global health?	IMG	6/18 (33%)	10/18 (56%)	2/18 (11%)
	UK	9/39 (23%)	16/39 (41%)	14/39 (36%)
	Total	15/57 (26%)	26/57 (46%)	16/57 (28%)
How would you rate your inter-cultural competence?	IMG	13/18 (72%)	4/18 (22%)	1/18 (6%)
	UK	18/39 (46%)	18/39 (46%)	3/39 (8%)
	Total	31/57 (54%)	22/57 (39%)	4/57 (7%)

*"we can also learn from other countries and can implement good practices from there"*

Doctors reported that the educational benefits of VIEs could improve generic professional skills such as: improved communication skills, promoting a broader view of health; and being open to change and challenging the status quo in their clinical work.

*"To improve communication skills ... to get an idea of what is more important to some communities"*

*"Broader understanding of health, alternative view points and methodology, challenges to the 'way things are done', potential to invite change"*

*"Could we manage conditions differently? Could we change health care provision in the long term?"*

A key theme was how culture can impact on patients' expectations. Doctors felt that VIEs could nurture a greater awareness of the cultural experiences of patients from abroad and improve NHS care.

*"It's important to understand what healthcare is like in other countries as this helps GPs better look after specific patient groups"*

*"Insights into people's cultural and social backgrounds might help us about understanding certain aspects of their lifestyles and health practice and beliefs related their health and conditions"*

Doctors also viewed VIEs as an opportunity to make connections for future careers working abroad, as well as improving communication and team working with international colleagues, who now comprise about 15% NHS workforce from over 200 nationalities.

*"It would help to give a greater understanding of different cultures and how healthcare works in different areas and so would help understanding as to why some international colleagues practice in a different way and hopefully would help us learn new ways of practicing"*

### Practical Implementation of VIEs

Most reported that international lectures or facilitated small group meetings on a digital platform would work best. Although the majority were positive, some doctors expressed concerns about using technology rather than travel to learn about global health.

*"[You] could theoretically learn about other cultures etc. but unless actually fully working and immersed in them I think it would be difficult to relate to or learn from them"*

Other logistical challenges identified included different time zones, language barriers and over reliance on technology (e.g. internet connections). Some highlighted time pressures in an already busy curriculum and the additional stresses of working in a pandemic as another potential barrier currently.

### Discussion

This is the first study of GP trainees' perspectives on VIEs and has highlighted that they feel global health is a valuable aspect of their training, and they would be willing to participate in VIEs to facilitate their learning. Both GP trainees who had qualified from UK medical schools and those who had trained overseas (IMGs) recognised a gap

in their knowledge of global health and intercultural competence and understood the importance in their day-to-day clinical practice. Less than 50% UK graduates and less than 75% IMGs rated their cultural competency as 'good', which is clearly a pressing educational need, given the multicultural nature of the UK patient population and NHS workforce. It is consistent with a systematic literature review of cultural competence in GP training, which identified a lack of focus and a need for training in identifying non-conscious biases, anti-racism education and critical self-reflectiveness [17].

There is a paucity of literature on the perceived learning needs of IMG GP trainees [18] and, interestingly, UK graduates and IMGs views were similar on all questions. Research has shown that IMG doctors working in primary care in the US still report workplace bias and discrimination [19]: one might therefore have predicted they would advocate for more opportunities for cross cultural training. On the other hand, they also report advantages from having worked in different health care systems and socio-economic contexts [19], and may have therefore felt this was not a priority for their training. Our data clearly show that all GP trainees felt global health training and developing cross cultural competencies were important, and that VIEs could be used to enhance this learning.

The main limitation was this is a relatively small survey of GP trainees in one area of the UK. However, participants were representative of the GP training population and thematic analysis of free text responses from 39 doctors enriched the quantitative data on their views and perceptions. Whilst not transferable to all medical education environments, our results help to strengthen the evidence base for the benefits of VIEs, suggest they will be valued by doctors in training, and help inform other educators regarding the barriers that need to be addressed. Solutions will be context specific. One approach we plan to explore in a pilot scheme to identify suitable international partners, is to draw upon the rich experience and international networking opportunities within our current IMG GP trainee cohort.

### Conclusions

The COVID-19 pandemic forced medical educators to move online and encouraged us to think in new and innovative ways [20]. We know that GPs on the frontline of the UK NHS need opportunities to develop intercultural competencies and knowledge of relevant global health issues. VIEs may offer a more structured, equitable and environmentally responsible approach to enhancing doctors' education in global health than overseas travel on international electives. VIEs can provide a mechanism for bidirectional learning and offer doctors the opportunity to develop sustainable international links. Our study helps to strengthen existing literature, previously only on medical students and allied health professionals, to show that VIEs have the potential to offer an acceptable and attractive approach to global health education for qualified doctors.

Due to social distancing restrictions in the UK over the past 18 months, we moved our GP training programme out of the classroom and taught via regular virtual small group discussions. These online groups could be international and we are currently exploring the practicalities of identifying appropriate educational partners, navigating different time zones, and setting educational objectives. Whilst not a new concept,

we anticipate that VIEs will be utilised more in medical education to fill a gap imposed by current travel restrictions and an increasing appreciation of the environmental cost of international travel.

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