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International graduates' experiences of reflection in postgraduate training: a cross-sectional survey

Short title: International graduates' experiences of reflection

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Abstract

Background: Reflection is a key component of postgraduate training in general practice (GP). International medical graduates (IMG) are thought to be less familiar with reflection, with international medical schools favouring more didactic methods of education.

Aim: To explore IMGs' experiences of reflection prior to and during GP training, and the support available for developing skills in reflection.

Design and setting: A cross sectional survey was sent to IMGs undertaking GP training in 12 of the 14 UK regions from March to April 2021.

Method: A pre-tested self-administered on-line questionnaire was used to collect data on experiences of reflection both prior to and during GP training, and support available for developing skills in reflection.

Results: 485 of 3413 IMG trainees completed the questionnaire (14.2% response rate, representative of national demographics). 79.8% of participants reported no experience of reflection as an undergraduate and 36.9% reported no formal training in reflection during GP training. 69.7% of participants agreed that reflection was beneficial for their training and 58.3% reported that the best support in reflection came from their supervisors. Experience of reflection, opinions on the benefits, and best sources of support all varied by where respondents' primary medical qualification was obtained (all p-values <.01).

Conclusion: Most IMGs have not experienced reflection prior to commencing UK GP training. There is diversity in experience and culture within this group which must be considered when tailoring educational interventions to support IMGs in their transition to UK GP training.

Keywords: Reflection, postgraduate education, international graduates

How this fits in

- Confirms previous assumptions that international graduates are unlikely to have experience of reflection before entering GP training
- Support in developing skills in reflection is very variable depending on region in which GP training is undertaken
- There is wide diversity in experience of reflection, views on benefits and preferred support within this group of trainees
- Educational interventions developed to support IMGs should be tailored to reflect the diversity within this group

Introduction

Differential attainment between international medical graduates (IMGs) and their UK trained colleagues remains a major problem in postgraduate education, both during training (1) and in postgraduate exams (2). The evidence for educational interventions to support international graduates during training is weak, the research often lacking in scientific rigour, and with a lack of appreciation for differences in cultural background or previous experience (3).

Reflection is applied across all disciplines in postgraduate medical education as a means of personal and professional development which can identify opportunities for improvements in patient care (4). For many international graduates, reflection is assumed to be a new concept, with most describing their previous education as 'science-orientated' (5) and favouring didactic, teacher-focused educational techniques (6). This change in learning culture puts further pressure on international graduates as they adapt to living and working in the UK (6). This is likely to be amplified in General Practice training where reflection is used to evidence GMC competencies for progression to CCT (7).

It has been suggested that earlier introduction to and understanding of reflective practice could aid progression of international graduates in GP training (8). This is however based on assumptions about international graduates' lack of familiarity and understanding of reflection which has not been conclusively evidenced. The aim of this research is to explore international graduates' experiences of reflection, both prior to, and during GP training, including the support available for developing skills in reflective practice.

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Methods

A cross sectional survey of all international graduates enrolled in UK GP training schemes was conducted from the 8th March to the 22nd April 2021 using a pre-tested self-administered on-line questionnaire. At this time, international graduates accounted for 37.5% of GP trainees in the UK meaning 3627 trainees were eligible for inclusion in the survey.

Study setting

Before applying for GP training in the UK, international graduates must first successfully complete the professional and linguistics assessment board (PLAB) test which is an assessment of clinical knowledge and skills through written and structured clinical exams. To access a training programme, they must then provide evidence of foundation level medical competence and be successful in the national recruitment process.

There are 14 regional schools of primary care across the UK which oversee GP specialty training programmes. Applicants are required to choose their preferred programme and region when submitting their application. Appointment to a programme in a preferred region is highly dependent on competition ratios for that region, with generally more competition for London and the South East compared with other parts of the UK. Numbers and proportion of international graduates vary widely between region; in London 101 of 1131 trainees (8.9%) are international graduates compared to 556 of 979 trainees (56.8%) in the West Midlands. Within each region, competition also exists for the most popular training programmes and the proportion of international graduates can vary markedly between programmes within regions.

Survey Instrument

As there were no validated questionnaires available to evaluate this topic area, survey questions were designed by the lead researcher following a comprehensive literature review. Questions were supplemented by expert review by a panel of stakeholders and co-investigators, and content, phrasing and layout were refined following piloting. Following an introduction explaining the nature of the study including descriptions of members of the research team and funding body, there followed 5 sections of questions as listed below:

- Section 1: Declaration of consent and demographic information
- Section 2: Understanding of the purpose of reflection -Open ended questions
- Section 3: Experiences of reflection prior to GP training- Multiple choice questions
- Section 4: Training and support in developing reflection- Multiple choice questions
- Section 5: Advantages and disadvantages of reflection- Likert scales and open ended questions

To ensure all participants had some understanding of reflection, a definition of reflection and examples of the context in which it is used in postgraduate training were provided.

The survey was designed and applied using the Online Surveys™ tool. Participant information including a link to the online survey was sent via email to the heads of all the UK regional training schemes to be cascaded in a top-down approach. Two weeks before closure of the online survey, a further email was sent encouraging circulation of a reminder to trainees to maximise response rates.

An incentive for completion of the survey was offered in the form of entry into a prize draw for the chance to win an online shopping voucher.

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Data analysis

Data from closed ended questions were transferred into SPSS software for analysis. Actual numbers and proportions were calculated for each question response. Pearson Chi-square tests were applied in order to make intergroup comparisons between the responses obtained from trainees of different gender, age, previous medical experience and subregion of the world in which primary medical qualification (PMQ) was obtained. Comparisons between regional primary care schools was conducted.

Free text answers were imported into NVivo software. Qualitative thematic analysis is ongoing and is not reported here.

Stakeholder participation and involvement

Prior to commencing the research, a stakeholder group was recruited consisting of current GP trainees who achieved their primary medical qualification outside of the UK, and GP trainers with experience of training/ studying abroad. This stakeholder group has been involved at all stages of the research from design through to analysis and dissemination.

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Results

The questionnaire was sent to all 14 UK regional schools of primary care and was circulated by 12 of the 14 schools. The Wales and London schemes did not circulate the questionnaire to their trainees (despite several attempts to contact the Heads of School). Excluding the 214 trainees who did not receive the questionnaire in these regions (113 in Wales and 101 in London), 485 of the 3413 remaining trainees completed the questionnaire (14.2% response rate).

Regional response rates

Response rates varied greatly between region (Figure 1). The highest rates being in Northern Ireland (39.4%; 15 of 38 trainees) and South West England (33.2%; 64 of 193 trainees). The lowest rates were in North West England (2.3%; 12 of 524 trainees) and East of England (5.1%; 23 of 448 trainees)

Demographics

The demographic characteristics of the respondents are presented in Table 1 alongside the corresponding contemporaneous GMC data for GP training in the UK. The sample is broadly comparable to the GMC data in terms of gender, age and sub-region of the world in which primary medical qualification was obtained. Country of primary medical qualification (PMQ) was requested from all participants. To allow comparison with GMC data, these have been grouped together and presented according to sub-regions of the world. Participants were most likely to have achieved their PMQ in Africa (35.7%; 173 of 485) and South Asia (32.2%; 156 of 485).

Experience of reflection prior to GP training

When asked whether they had experience of reflection as an undergraduate, 20.2% of participants (98 of 485) agreed (Table 2). Differences in agreement to this question were observed depending on subregion of the world in which PMQ was obtained. Trainees who achieved their PMQ in Africa or the Middle East were significantly less likely to agree that reflection was part of their undergraduate training (Table 2).

Support

Trainees were asked from whom they had received the best support and advice in reflection. The majority stated this came from their supervisors which included clinical supervisors, educational supervisors and training programme directors (58.3%), but with high numbers of trainees reporting friends and peers as the best source of support (26.7%) (Table 2). Further analysis of the data revealed significant differences in these responses depending on subregion of the world in which PMQ was achieved (Table 2).

Is reflection beneficial?

The majority of trainees (69.7%) felt that reflection, as they had experienced it within GP training, was beneficial. Differences in responses were seen, depending on the subregion of the world in which PMQ was achieved (Table 2). Trainees who achieved their PMQ in Africa were more likely to report that reflection was beneficial, and those in Europe and Oceania and the Middle East were less likely to report that reflection was beneficial.

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Training in reflection

36.9% of participants reported that they had not had any formal training in reflection. Of those trainees who reported receiving training, this was most likely to be in the form of small group teaching or one to one tutorials with supervisors. Looking at whether trainees reported receiving formal training in reflection, differences were seen in response depending on the postgraduate region in which training was being undertaken (P=0.009) (Figure 2).

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Discussion

Summary

The results of the survey are a valuable addition to the literature in this area and provide new insights about international graduates' experiences of UK GP training. Despite reporting limited experience of reflection during undergraduate training, the majority of trainees feel that reflection within GP training is beneficial. There were however significant differences seen in responses to this question depending on subregion of the world in which PMQ was achieved, with trainees who achieved their PMQ in Africa being much more likely to feel reflection is beneficial than those who completed their PMQ in the Middle East. It is unlikely that this is simply a result of familiarity with reflection, as few trainees from these subregions reported experience of reflection as an undergraduate. Perhaps then this arises from much more complex issues of culture and the expectations of education.

Over half of respondents viewed supervisors as their best source of support, however those trainees who achieved their PMQ in South Asia were more likely to report their most valued support came from supervisors than those whose PMQ was achieved in Africa, who were more likely to value support from peers. When one considers that the teaching methods in both these subregions are most likely based on a science oriented 'teacher as expert' model (6), such significant differences in response to this question are perhaps surprising. The fact that the difference exists suggests again a level of complexity which necessitates examination in a sociological context.

International graduates have been identified as more vulnerable to the negative consequences of reflection, such as problematic medico-legal complications (9). As such it is concerning to find that high numbers do not report formal training and support to develop their skills in reflection. Trainees reported significant differences in provision of training between regions of the UK. This is unsurprising considering there are currently no national guidelines / protocols for the support of international graduates in UK GP training.

It might be assumed that those regions with higher numbers and proportions of international graduates might be better equipped to support their trainees in developing this key skill for professional development. However, from the results (which must be interpreted with caution considering the low numbers in some regional groups) the region that performed poorly in reported provision of formal teaching was a Primary Care School where international graduates accounted for 46% of the total number of trainees in the region.

It has been suggested that international graduates are subjected to a 'cycle of educational deprivation', they perform less well than their UK colleagues in GP selection centres and are therefore placed in less popular training programmes (2). With this in mind, it is disappointing that we were unable to obtain survey results from London, known to be one of the most popular GP training schemes, which has very low proportions of international graduates, in order to make these comparisons.

Strengths and limitations

Despite the intention to send the survey to all international graduates undertaking GP training in the UK, the survey was not circulated in 2 of the 14 training regions (despite multiple attempts to contact senior regional training figures) and therefore unintended sample bias may have been introduced.

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Non-response bias was minimised by sending at least one reminder to potential participants and by offering an incentive for survey completion. The response rate of 14.2% is much higher than a similar study into the experiences of international graduates (10) which reported a 0.7% response rate to electronic survey and 8% to postal survey. The demographic characteristics of the trainees responding to the survey are similar to GMC data in respect to gender, age and subregion of the world in which PMQ was obtained. Therefore the data obtained is likely to capture the views of a broadly representative sample of international graduates training in the UK. It could be argued that respondents are more likely to have extreme views on reflection, both positive and negative, which may have skewed the results.

Trainees may have felt obliged to agree with statements about the benefit of reflection because this is compulsory to their training, thereby introducing response bias. However, trainees were not afraid to express negative views or concerns about reflection as is clear from the ongoing analysis of the free text questions; over 80% of respondents completed an optional question asking them to describe what they felt was the worst thing about reflection.

It is important to acknowledge that trainees were reporting teaching and support received retrospectively. There is the possibility of recall bias; that trainees have forgotten teaching sessions delivered, or that there was lack of engagement.

Comparison with existing literature

The findings presented here confirm that international graduates are unlikely to have experienced reflection as part of their undergraduate training which has been suggested in previous papers, but not conclusively evidenced (6).

One of the criticisms of previous research involving international graduates is that interventions are often developed which treat the trainees as a homogenous group (3) without accounting for complex sociological differences. Analysis of the data presented here shows significant differences in experience of reflection as an undergraduate, sources of support most highly valued by trainees, and overall views of the benefit of reflection depending on subregion of the world in which PMQ was achieved. This confirms the importance of 'embracing complexity' when it comes to developing interventions for this diverse group of trainees.

Implications for research and /or practice

The findings presented here offer new insights into international graduates' experiences of reflection, confirming some previous assumptions about undergraduate exposure to reflection, but also offering new insights into sources of support, provision of training and perceived benefits of engaging with reflection. The results have also identified significant differences in the reported provision of training and support across the different regional GP schools; there may therefore be some benefit from developing national guidance/ protocols in how to support international graduates in their transition to UK GP training. Any intervention developed must consider the vast diversity in culture and experience within this group of trainees and consider the individual needs of each trainee.

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Ethical Approval

Ethical approval for this research was granted by the University of Sheffield Research Ethics Committee Project Code 169743

Competing Interests

None to declare.

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References

1. Tiffin PA, Illing J, Kasim AS, McLachlan JC. Annual Review of Competence Progression (ARCP) performance of doctors who passed Professional and Linguistic Assessments Board (PLAB) tests compared with UK medical graduates: National data linkage study. BMJ [Internet]. 2014;348(April):1–18. Available from: http://dx.doi.org/doi:10.1136/bmj.g2622

2. Esmail A, Roberts C. Academic performance of ethnic minority candidates and discrimination in the MRCGP examinations between 2010 and 2012: Analysis of data. BMJ [Internet]. 2013;347(7927):1–10. Available from: http://dx.doi.org/doi:10.1136/bmj.f5662

3. Lineberry M, Osta A, Barnes M et al Educational interventions for international medical graduates: A review and agenda. Med Educ. 2015;49(9):863–79.

4. AoMRC, COPMeD, GMC, MSC. The reflective practitioner [Internet]. 2018. Available from: https://www.rcgp.org.uk/-/media/Files/GP-training-and-exams/WPBA/LLE/The_reflective_practitioner_guidance.ashx?la=en

5. Michalski K, Farhan N, Motschall E, et l Dealing with foreign cultural paradigms: A systematic review on intercultural challenges of international medical graduates. PLoS One [Internet]. 2017;12(7):1–20. Available from: http://dx.doi.org/10.1371/journal.pone.0181330

6. Khan FA, Chikkatagaiah S, Shafiullah M et al. International Medical Graduates (IMGs) in the UK—a Systematic Review of Their Acculturation and Adaptation. J Int Migr Integr. 2015;16(3):743–59.

7. Royal College of General Practitioners. Workplace Based Assessment- Learning Log [Internet]. [cited 2021 Oct 1]. Available from: https://www.rcgp.org.uk/training-exams/training/workplace-based-assessment-wpba/assessments/learning-log.aspx

8. Warwick C. How international medical graduates view their learning needs for UK GP training. Educ Prim Care. 2014;25(2):84–90.

9. Emery L, Jackson B, Herrick T. Trainee engagement with reflection in online portfolios: a qualitative study highlighting the impact of the Bawa-Garba case on professional development. Med Teach. 2021;Accepted a.

10. Slowther A, Lewando Hundt GA, Purkis J, Taylor R. Experiences of non-UK-qualified doctors working within the UK regulatory framework: A qualitative study. J R Soc Med. 2012;105(4):157–65.

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Figure 1: Response rates per UK regional Primary Care School

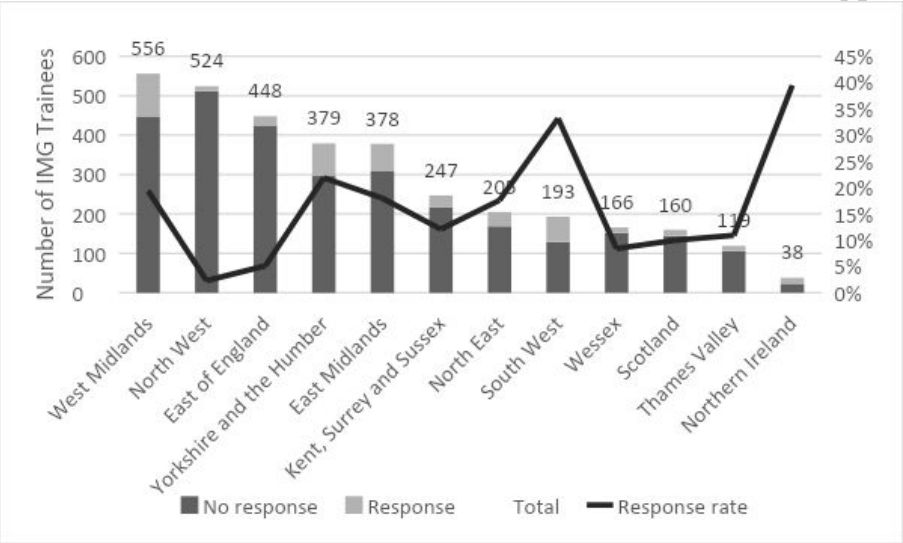

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Figure 2: Training in reflection by UK region in which GP training undertaken

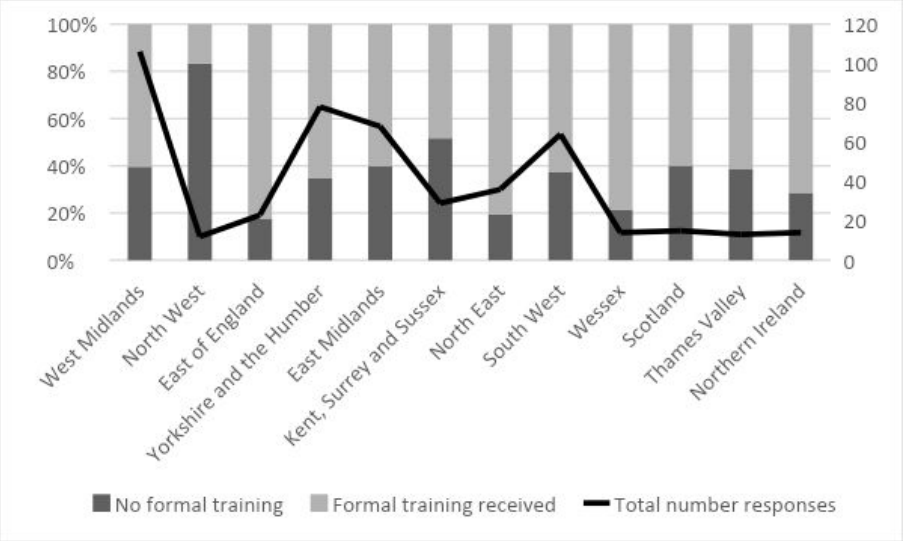

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Table 1: Demographics of questionnaire participants comparisons with GMC data

	Number Participants	Percentage Participants	Number GMC data	Percentage GMC data
Gender				
Female	259	53.4%	1911	56.0%
Male	222	45.8%	1502	44.0%
Total	481		3413	
Age				
25-29	44	9.1%	203	5.9%
30-34	195	40.4%	1164	34.1%
35-39	142	29.4%	1019	29.9%
40+	102	21.1%	1026	30.1%
Total	483		3412	
Subregion PMQ				
Africa	173	35.7%	1162	34.0%
Europe+Oceania	72	14.8%	521	15.3%
a. EAA Europe	59	12.2%	402	11.8%
b. Non-EAA Europe	11	2.3%	117	3.4%
c. Oceania	2	0.4%	2	0.1%
Middle East	49	10.1%	263	7.7%
Rest of the World	35	7.2%	207	6.1%
a. Rest of Asia	22	4.5%	130	3.8%
b. South/ Central/ Latin America and Carribean	13	2.7%	77	2.3%
South Asia	156	32.2%	1260	36.9%
Total	485		3413	

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Table 2: Survey responses crosstabs analysis with subregion of PMQ

	Africa	Europe and Oceania	Middle East	Rest of the World	South Asia	Total	P value
I experienced reflection as an undergraduate…							
Agree	25 (14.5%)	17 (23.6%)	4 (8.2%)	13 (37.1%)	39 (25.0%)	98 (20.2%)	<0.001
Disagree	118 (68.2%)	51 (70.8%)	37 (75.5%)	18 (51.5%)	82 (52.6%)	306 (63.1%)	
Unsure	30 (17.3%)	4 (5.6%)	8 (16.3%)	4 (11.4%)	35 (22.4%)	81 (16.7%)	
Total	173	72	49	35	155	484	
The best support and advice I have received in reflection is from…							
I do not feel supported	15 (8.7%)	10 (13.9%)	8 (16.3%)	6 (17.1%)	16 (10.3%)	55 (11.4%)	0.007
Supervisors (CS/ES/TPD)	86 (49.7%)	45 (62.5%)	26 (53.1%)	19 (54.3%)	106 (68.4%)	282 (58.3%)	
Friends/ peers	63 (36.4%)	14 (19.4%)	15 (30.6%)	7 (20.0%)	30 (19.4%)	129 (26.7%)	
Other (Self directed/ online)	9 (5.2%)	3 (4.2%)	0	3 (8.6%)	3 (1.9%)	18 (3.7%)	
Total	173	72	49	35	155	484	
Reflection as I have experienced it in UK GP training is beneficial…							
Agree	141 (95.3%)	43 (74.1%)	28 (73.7%)	22 (88.0%)	104 (89.7%)	338 (87.8%)	<0.001
Disagree	7 (4.7%)	15 (25.9%)	10 (26.3%)	3 (12%)	12 (10.3%)	47 (12.2%)	
Total	148	58	38	25	116	385	

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