



ISET WORKING PAPER 1

INTERNATIONAL RETURN MOBILITY, LEARNING AND KNOWLEDGE TRANSFER: SLOVAK DOCTORS

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January 2008

The views expressed in this paper are those of the authors, and do not represent the collective view of ISET.

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ABSTRACT

International mobility provides opportunities for learning and knowledge transfer by health care workers, with significant potential benefits for countries of origin in the case of returned migration. This is examined using a typology that recognizes four type of tacit knowledge: embrained, embodied, embedded, and encultured. There are, however, constraints to learning and knowledge transfer in the form of professional and social recognition as well as language barriers. These theoretical ideas are explored through a case study of internationally mobile Slovak doctors after their return to Slovakia. Individual learning and knowledge sharing with colleagues, both abroad and after return, are analysed through a series of in-depth interviews.

KEYWORDS

Migration Knowledge Learning Health Slovakia

ACKNOWLEDGEMENTS

Allan Williams is grateful for the support provided for this research by a British Academy Readership.

INTRODUCTION

International mobility and migration constitute significant channels for learning and knowledge transfer (Williams 2007a). This is particularly important for health care workers, such as doctors, who work in an increasingly globalized labour market where 'Health worker migration is an inescapable feature of the health sector' (Bach 2003: 31). While several studies have examined different aspects of health worker migration, including gendered experiences (Raghuram and Kofman 2002) and workplace discrimination (Larsen et al, 2005), there has been relatively little research of mobility as a conduit for learning and knowledge transfer. The research deficit applies to all four major types of migration identified by Diallo (2004): health to health job permanent moves, health to non-health job permanent moves, health to health jobs on return, and health to non-health jobs on return. However, it is particularly marked for returned migrants, an increasingly important group both because of growing mobility, and shifts to more cyclical (King 2002) and serial (Ossman 2004) mobility – but see Brown and Connell (2004). Here we focus on one type of return, the return of doctors from health to health sector jobs, and specifically on healthcare learning and knowledge transfer.

The traditional starting point for analysing knowledge is Polanyi's (1966) distinction between codified and tacit knowledge, but Blackler's (2002) typology provides a more nuanced perspective, identifying four types of tacit knowledge: embrained, embodied, encultured and embedded. Our central argument is that doctors' learning and knowledge transfer experiences need to be understood in relation to different types of knowledge.

The paper also seeks to broaden understanding of the geographical range of cycles of health care mobility. The research literature has largely focussed on migration from Less Developed to Advanced Capitalist economies (DRCMGP 2006). But there are also significant intra-European migrations of health workers, particularly since post 1989 reintegration. Despite significant cultural and linguistic barriers amongst European countries (Jinks et al 2000), EU enlargement and mutual recognition of qualifications has facilitated substantial flows of health care workers, particularly from the pre 1989 state socialist countries, to Western European countries such as Austria, Germany and the UK (Bach 2003). Slovakia, a country which has experienced high levels of temporary migration (Baláž et al 2004), provides a case study of these new forms of mobility, where migration and

return are played out against a background of rapidly changing health service conditions in a transition economy.

The paper aims to explore the learning experiences of doctors while abroad, the transfer of knowledge via returned mobility, and the barriers and facilitators encountered. Our main data sources are in-depth interviews with returned migrant doctors and hospital managers. The paper first explores key issues relating to health care migration and the conceptualization of knowledge transfer via mobility, then outlines key features of the Slovak health services and our methodology, before considering first, the migrants learning experiences abroad, and secondly their experiences of knowledge transfer on return.

HEALTH CARE MIGRATION AND KNOWLEDGE TRANSFER

International migration of health care workers is not a new phenomenon, and in the 1970s an estimated 6% of all doctors worked outside their country of origin (Meija et al 1979). However, health care labour markets have become increasingly internationalised and, for example, Buchan and Dovlo (2004: 271) estimate that in the UK, in 2002, nearly one half of the new entrants on the General Medical Council register were from non-EU overseas countries. There are several reasons for such increases in the UK and other developed countries, including enhanced electronic communication and job applications, targeted recruitment drives by individual countries, and the need for international mobility to meet short-term recruitment shortages, given time lags in expanding medical training programmes (Stilwell et al 2004). We know far less about the scale of returned migration by health care workers and, although the distinction between temporary and permanent migration is recognized, this is often blurred in practice (Chanda 2002). However, generic migration studies have shown that temporary migration is an important feature of the new map of mobility (Dustmann and Weiss 2007).

High levels of international mobility provide a potentially significant conduit of learning and knowledge transfer. This paper focuses on different types of knowledge, recognizing that knowledge constitutes more than the technical medical knowledge acquired and exchanged amongst doctors. Blackler (2002), drawing especially on his earlier work and

that of Zuboff (1988), Berger and Luckmann (1966), and Brown and Duguid (1991), identifies four main types of tacit knowledge:

- *Embrained* knowledge, which depends on conceptual skills and cognitive abilities, allows recognition of underlying patterns, and reflection on these. For mobile doctors, this may include classroom and library-based learning in more advanced medical institutes.
- *Embodied* knowledge results from practical thinking and learning by doing, being rooted in specific contexts, physical presence, and sentient and sensory information. For migrant doctors, this may include learning from observation at, or participation in, particular health care events, such as operations or consultations.
- *Encultured* knowledge emphasizes that meanings are shared understandings, arising from socialization and acculturation. For migrant doctors, this involves learning about different values and approaches to health care, whether by doctors, other health care professionals or patients,
- *Embedded* knowledge is embedded in contextual factors, including shared knowledge generated in different organizational cultures and work groups. For migrant doctors, this includes learning about different health care systems, and contrasting organizational approaches to health care delivery.

The key question is whether migration and mobility provide a *selective and, or distinctive* conduit for learning and knowledge transfer. As argued elsewhere (Williams 2007b), embrained and embodied knowledge are encapsulated in the individual, and are transferable via international migration. Of course, such knowledge can also be transferred electronically, but physical co-presence is important, and probably necessary, for transferring some types of knowledge, such as 'learning by observation' or 'learning by participation' at a medical operation. In contrast, encultured and embedded knowledge are place specific, being specific forms of socially-situated knowledge. They are grounded in relationships between individuals, in particular settings, and in socialization processes. The lack of shared meanings with those working outside these settings, means the transfer of these types of knowledge via human mobility is constrained. However, migrants can

transfer a truncated version of encultured and embedded knowledge, which can be discussed with others, even if they lack shared understanding of the settings. And knowledge of different systems and cultures increased the potential of migrants for reflexivity in new settings, that is their ability to contrast and compare. Returned migrants, depending on their length of absence, already possess substantial encultured and embedded knowledge of the return setting.

The question is whether internationally mobile doctors have potential to learn and transfer distinctive knowledge, different to that available in the origin or the return setting. There are three issues here. First, mobile doctors may have different opportunities to learn different techniques or approaches in some countries – because of fundamentally different beliefs in what constitutes relevant medical knowledge, or because of lags in the dissemination of medical knowledge between countries. Of course, with the rise of the web and increasing numbers of conferences, there are other ways of acquiring new knowledge, but in some circumstances – for example, embodied knowledge - this can only be acquired via co-presence. Secondly, migrants have distinctive opportunities for what Marsick and O’Neil (1999: 163) term the Critical Reflection School of Action Learning: ‘Critical reflection can also go beyond the individual participant’s underlying assumptions and can lead specifically to the examination of organizational norms’. This has particular relevance for embedded and encultured knowledge. And thirdly, there are opportunities as potential boundary spanners, because boundaries (here understood as national borders) are ‘areas of unusual learning, places where perspectives meet and new possibilities arise’ (Wenger 2000: 223). Of course, crossing boundaries does not automatically make an individual a boundary spanner, but this can be significant where international borders demarcate significant knowledge divides.

Both migrants and returned migrants may encounter substantial barriers to learning and knowledge transfer. First, whether employer organizations are open to inward knowledge transfers, in this case from a different country, is critical. Is the organization willing to ‘to embrace external reference standards and methods?’ Earl (1990: 742). Both formal management strategies and styles, and individual behaviour, influence learning and knowledge transfers (Ipe 2003: 349). Organizations need to maximize connectivity amongst workers if they are to leverage migrant knowledge or enhance their learning.

Secondly, there are barriers related to ascription, acceptability and suitability (Jenkins 2004: 153). Migrant doctors may be ascribed as outsiders, newcomers, or – in some cases - as ethnic minorities. Ascription is likely to influence how acceptability is perceived by other employees. Suitability emphasizes achieved or acquired characteristics; migrants have more power to change these (including acquiring encultured and embedded knowledge), but social recognition of their suitability may be constrained by ascription and acceptability. Issues around race and ethnicity in the employment experiences of health care migrant workers are well documented (Larsen et al 2005; Raghuram and Kofman 2002), but the experiences of ‘other white’ migrants in more developed economies are under-researched. Returned migrants may also be ascribed as outsiders in some circumstances, depending on length of absence, but are more likely to be able to achieve acceptability.

Thirdly, migrants, like most newcomers, are often ascribed a peripheral position within work groups (Lave and Wenger 1991). A strategy of effective knowledge mobilization would involve moving newcomers ‘incrementally along a continuum from the domain of stranger toward that of friend’ (English-Lucek et al 2002: 97). Acquiring encultured and embedded knowledge (which originates within an organization) may allow individual migrants to move from the status of ‘stranger’ to that of ‘friend’. Again, returned migrants may face fewer long-term barriers than migrants in this respect.

Fourthly, language competence is central to inter-cultural communication, which is important to the negotiability of knowledge by international migrants. Elkjaer (2003: 43) argues that language, according to social learning theory, is critical to learning, since it is the main way of acting in contemporary organizations. For doctors, language mediates their ability to interact with patients, with colleagues, managers, and the embedded knowledge of employer organizations.

In summary then, migration is potentially a selective channel for learning and transferring particular types of tacit knowledge. There is potential for migrants and returned migrants to acquire and transfer distinctive knowledge if national borders still demarcate distinctive knowledge communities. However, the experiences of migrants are conditioned by the openness of organizations to external knowledge, ascription and acceptability, the

tendency for newcomers to be allocated to peripheral roles, and their language competence.

HEALTH CARE IN A TRANSITION ECONOMY: SLOVAKIA

Slovakia provides an interesting case study, being intermediate between the more and the less developed countries as a reception area for returnee doctors. Martineau et al (2002: 10) assert that 'The temporary skills acquired whilst overseas is often cited as a benefit brought by temporary returning migrants [but]... 'High tech' skills will only be valuable in the health sector if the returnee has access to similar working conditions and equipment'. The authors argue that this is more likely in middle income than in low-income countries, and - by extension - the transition economies of Eastern Europe.

The political and economic transition after 1989 from a late state socialist economy and health system to a market system and EU membership from 2005 means there was a rapidly changing health care context for migration and return. Before 1989, there was a unified state health system in the former state-socialist Czechoslovakia. This was relatively well funded, being allocated 5% of the state budget (Hlavacka 2004: 11). However, opaque and inefficient resource allocation meant a general lack of capital investment, obsolete equipment and facilities, low salaries, and an oversupply of doctors.

Since 1989, Slovakia has struggled to devise and implement a coherent strategy for transforming health services given tight resource constraints (Hlavacka 2004: 13). Despite increased private funding, the state still provides 90% of all resources. There has been a shift to a social health insurance system but poor collection compliance has meant that the health system has become increasingly indebted. Funding remains a major problem: health care accounted for 5.7% of GDP in 2002, which placed Slovakia fifth from bottom in the EU25, in purchasing power parity terms. Health care reforms have also been problematic, with persistent high levels of staffing and rising expenditure on drugs (Nemec and Lawson 2005). Barriers to imports of leading western technologies were removed, which enhanced health care infrastructure, but at the same time exacerbated the financial situation. These problems were most acute in relation to in-patient care, and so are particularly germane to

hospital doctors. Recent introduction of patient fees has stemmed demand significantly but financial constraints are still severe (Pažitný and Zajac 2005).

The number of doctors increased from 14,187 FTE in 1980 to 16,997 in 2002, and the density of active physicians (3.2 per 1000) was close to the EU-15 average (3.5) in 2001. The numbers of graduates were determined by the medical faculties in a liberalized recruitment system, resulting in an erratic but general overtraining of doctors compared to vacancies. Relatively low wages – doctor's wages in 2001 were only just over twice the average Slovak wage (Pažitný 2007: 7) – created fertile conditions for emigration in Slovakia (ILO 2002), especially as nominal wages in France and the UK were ten times higher. The incomplete evidence confirms this: Some 1400 'proof of good repute certificates' were issued for Slovak doctors registering to work abroad, 2004–7, compared to about 500-800 doctors graduating per annum (Žurnál 2007). EU membership, post 2005, has facilitated mutual recognition of qualifications and the emigration of doctors from Slovakia (Jinks, 2000).

METHODOLOGY AND PROFILE OF INTERVIEWEES

The lack of accurate and consistent secondary statistics on health worker mobility is generalised, and not only a problem in transition countries such as Slovakia (Stillwell et al 2004: 596). Data is usually more likely to be available for destination than origin countries, as the former have registration schemes for international health workers. Hence, fragmented evidence may exist for the numbers of Slovak doctors working in other countries, but there is no single source of data for this mobility. The lack of data is even more pronounced for returnees, who are often indistinguishable from non migrants in most national data sets.

Although there is an emerging corpus of research on health worker mobility, this mainly draws on primary data. A quantitative survey offers a broader and more representative perspective but we opted for in-depth interviews with individual doctors, for two main reasons. First, in the absence of reliable lists of returned migrants, it would have been very difficult if not impossible to distribute a questionnaire to this cohort. Secondly, we concur with Robinson and Carey (2000), who studied Indian doctors working in the UK, that in-

depth interviews provide understanding of the 'discursive consciousness' that lies behind the decisions and motivations of migrants. This is particularly important given the complexities of learning and knowledge.

24 interviews were undertaken in 2006, 19 with doctors who had spent a significant period working/studying abroad, and 5 with managers in major hospitals. The managers provided overviews of the value to the hospitals of these international experiences. In the absence of reliable central records on mobility experiences, the first interviewees were contacted through the recommendations of managers and others, and snowball methods were used to identify other returnees. All interviews were undertaken face to face, which posed considerable logistical challenges, even though Slovakia is a relatively small country. A range of doctors were included in the study. Nine were from faculty medical hospitals in the capital city, Bratislava, and Martin (a large city in the centre-north of the country); these have more research functions, and stronger international contacts. The other 10 interviews were undertaken in widely distributed smaller hospitals in the north and east of the country, including a military hospital. Interviews were mostly in Slovak, but occasionally in English as one of the researchers did not speak Slovak.

There is a spectrum of international mobility types, ranging from spending a few days at a conference, through training courses of one or more weeks, to prolonged periods of migration over several years. Our target population was all those who had acquired significant learning or knowledge transfer experiences abroad. However, as this could not be known in advance of the interview, we sought to define a minimum time period for identifying potential interviewees. The interviews with managers suggested most doctors had spent brief periods abroad, of a few days or a few weeks for short-term training. For example, Manager Five commented that eight of the 13 doctors in his section had spent 1-2 weeks abroad, but only one had 'really lived and worked abroad'. Manager Two believed that a relatively short period abroad, of say 1-6 months, was sufficient for the training needs of most doctors, the only exceptions being particularly complex or innovative medical knowledge. Those who stayed longer were significantly less likely to return. Similarly, Manager Three argued that three months abroad was enough for effective learning by most doctors, especially if they already had, say, three to four years of work experience. Following these key interviews, it was decided to interview only those who had spent at least three months studying and working abroad. Doctors often combine studying

and working, so we did not differentiate between these in our inclusion criterion. Three months is a relatively short time period compared to most studies of international migration, but a range of short to medium term mobilities was characteristic of the interviewees. Working abroad excludes the Czech Republic, which until 1993 was joined with Slovakia in Czechoslovakia.

In common with most studies of returnees, we are unable to comment on the potentially different experiences of those who have not yet returned, and perhaps never will. Their precise number is not known, but Manager One estimated that in his medical field only 2-3 doctors of the 12-18 who had been abroad had not returned. Manager Three, who had seven doctors in his relatively small clinic, commented that only one had been abroad for more than a short-term placement, and none had left permanently. We have no knowledge of newly graduating medical students who may have gone abroad immediately to work, and only limited case study information in this study, but there are indications of a relatively high propensity to return amongst mobile Slovak doctors.

The doctors' learning and knowledge transfer experiences are discussed in the remainder of the paper after noting some general features of the interviewees. First, there were more men (12) than women (7), which reflects the highly gendered experiences of mobility, due particularly to social expectations about child care. Secondly, most had spent relatively short periods abroad: six spent 3-4 months and another five had spent up to one year, while eight had spent longer periods up to a maximum of four years. At the time of the survey, temporary mobility – from the relatively short to the medium term – seemed far more characteristic than long term migration.

Thirdly, their collective mobility experiences span the period of economic and political transition in Slovakia. Three interviewees had first been mobile under state socialism (pre 1989), which conditioned their destinations: Libya, and Hungary. However, even then, it was possible – if exceptional – to work/train in western countries, and one of those who had been to Hungary, subsequently worked in the Netherlands and Germany before 1989. Since 1989, as national and EU scholarships, and other possibilities for working or training abroad, have increased sharply, mobility has been reoriented to western countries; particularly Germany, Austria, Switzerland, and the Netherlands, but also the UK, USA and France, and Oman. The destinations were influenced by proximity, networks, and language

competence (German and English, mainly). Institutional links are also important in medical migration (Bach, 2003). Two army doctors had also served on UN missions to East Timor and Cyprus. Mutual recognition of medical qualifications within the EU has facilitated post 2005 mobility.

To maintain anonymity in the following discussion, we refer to individual doctors by numerical codes, D1- D19.

LEARNING EXPERIENCES ABROAD: IN PURSUIT OF HEALTH CARE KNOWLEDGE?

Motivations: Remuneration and Professional Development

Doctors have diverse reasons for going abroad, but these mainly centre on remuneration, professional development, and working conditions (Bach 2003). There are differences between doctors from developed and developing countries, with remuneration being less important for the former. For example, the top three motivational factors amongst doctors from other developed countries working in the UK were the personal challenge of living and working abroad, gaining knowledge to use in their own countries, and working at the leading edge of specialised medical knowledge (Home Office/DTI 2002, part 2: 22-23). In contrast, the main drivers for potential migrant doctors in five African countries were remuneration, promotion prospects and training opportunities were the main drivers (Awases et al 2003). But, in both cases, learning was considered important, whilst the doctors working in the UK also stressed knowledge transfer potential. Both these quantitative studies provided little insights into the actual experiences of learning and knowledge transfer.

Slovakia has a relatively modernised health service although it faces severe funding issues and doctors' wages are relatively low compared to Western Europe. It might therefore be expected that remuneration had been an important motivation for mobility, but only three doctors mentioned this. That perhaps is less surprising, given the relatively short periods that most spent abroad, and that a proportion had scholarships rather than salaried positions. There were exceptions, of course. D5, who been to Libya in the 1980s, explained that although motivated by higher wages, her choice of country had been severely constrained: *'I wanted to earn more money, because our wages were rather low...but I*

didn't choose the country. I was employed by Polytechna [state foreign trade enterprise], and Polytechna decided'. D17 had been motivated by higher wages in Sweden, although better working conditions were also important:

In Sweden it was quite simple .. they have open minds that Slovaks are educated and experienced and flexible. We accept their work markThe working environment is good, and so is the salary.

Professional development was the principal motivation for most interviewees, often linked to the acquiring specialist knowledge. Links were usually made via professional or personal networks, or a history of close institutional relationships in some specialist areas. For example, D18 had been to Switzerland because *'the possibility existed. My Professor had been there for four years and he arranged this. Professor Y had an international reputation'*. Some doctors, however, had more actively shaped their international experiences. For example, D12 had written to many institutions before he found an opening to spend three years in the USA working on infertility treatments. And one exceptional doctor had already spent time in three countries before 1989, including Germany. The turning point for him came after the collapse of state socialism:

.... two days after the changes in 1989, I was again invited to Germany, and I did go there to do research in 1992 to 1994. By then some of the people I had known in Kiel had moved to Koln. I was working with what you could call 'Leonard's children' [pioneer international specialist].

For some doctors, their international experiences were unplanned. Both the army doctors (D5 and D9) said that they had simply followed orders when being sent abroad on UN missions to East Timor and Cyprus. Others were motivated by an enthusiasm for new experiences. D6, for example, had been to Oman which was *'absolutely exotic for me. I had never heard about Oman before. I received an offer and thought it was tempting, because I like travel'*. Whatever their motives, the periods abroad represented learning experiences for all doctors, although their approach to these were conditioned by their motives, and the specific institutions where they worked or trained.

Health Care Learning Experiences: from Technology to Philosophies of Care

All interviewees found something positive to say about their learning experiences abroad. To some extent their comments were about equipment, particularly before 1989. D16, who had first gone abroad in the 1970s, commented that *'When I first went abroad, we had very old instruments and equipment in Slovakia. And it was very difficult to renew or replace.'* Similarly, D4 had found better equipment in Libya in the late 1980s. More recently mobile doctors were less likely to comment on technology, although in some cases - where they had worked in centres of excellence - they did so. D17 reported that when in the Netherlands in the 1990s,

it was a professional revolution for me. The best gold standard was in the Netherlands. It was like someone from Africa coming to work in Slovakia. They had different technology, and different medicines – at that time.

In contrast, most returnees did not comment on technology. D13, who had been to Switzerland, stressed how the technical gap had closed in recent years: *'in 1997 [first year abroad] they had equipment we did not have in Slovakia. Now the equipment is comparable, but financial limits for treatment are still very different for the same diagnosis'.* The gap has also closed for other types of codified knowledge. D17, who had been to the Netherlands and Sweden, stressed how access to medical literature had changed:

Back in the 1990s there was a lack of books, and there was no internet. If I bought a book then it cost 25,000 koruna which was my salary for a month, so my family would starve. What I used to do was go through the Current Contents, and find interesting articles. Then I would write to the authors asking for copies. The success rate was about thirty percent. Now we have the internet so there are no real differences in medical knowledge.

However, the diminishing importance of technology and codified knowledge in general has increased the relative importance of the tacit knowledge acquired abroad. This can be seen in terms of the four main types of tacit knowledge identified by Blackler (2002). Although in practice these are often blurred and overlapping, they are presented separately here for

analytical convenience. The respondents, of course, did not refer to these abstract conceptualisations of knowledge, but to particular experiences and events.

Some respondents considered that they had not acquired any new *embrained* knowledge, commenting that knowledge about techniques, medicines and approaches were now widely available whether from international conferences, books or – most importantly - the internet. However, these codified forms of knowledge were not always considered sufficient, as D9 explained about his experiences in East Timor: *'I saw many tropical diseases, I had only known from books.'* Those who responded positively were likely to refer to particular techniques that they had specifically gone abroad to learn about. Examples included learning about spinal fusion techniques in the USA, and immunisation chemistry in Germany. D18 explained that Switzerland not only had different equipment, but *'they also had a very complex approach to the care of new babies. So I supposed that I learnt a new philosophy of care. I had to think correctly about the patient.'* Arguably, it is the full system of care – or what is referred to as 'philosophy of care' - which is most difficult to encapsulate in codified knowledge.

Several doctors were even more emphatic about acquiring *embodied knowledge*. At one extreme, this represented no more than a chance to practice diagnostics and interventions with a larger number and range of patients than in Slovakia, as D7 recounted from Germany:

I cannot say I learnt anything really different there. My professional training and experience from Slovakia was quite good. What really was new, were large numbers of patients and operations in one place. It allowed me to know a broader spectrum of patients and do far more operations than in Slovakia. ... In Slovakia learning would have taken much longer.

A similar point was made by D15 about working in the UK on neuro-muscular diseases: *'...the work we do here in Slovakia is comparable to London. The main difference is that we only had one machine while there were four to work on in London'*. D2 commented more positively on the importance of being able to *practice* up to date medical treatments: *'The state of the art medicine is just a phrase used at medical conferences in Slovakia, but nobody is really able to do it in angio-surgery'*. Being present, seeing, practising were all

important forms of learning, or of acquiring embodied knowledge as summed up by D16 (Netherlands): *'It 's something else to see things with my own eyes'*. D13 (Switzerland) provided the fullest explanation:

You observe similar operations, similar diagnoses and patients and similar solutions – but! – you see minor differences, which are not mentioned in books. You can see and learn some details, which are very useful to learn. And I really did. You can see it and imitate it, because this is a practical matter. They tell you this is something new and we do it in such and such way. You discuss it and remember.

Even those doctors who did not consider that they had acquired embrained or embodied knowledge, acknowledged that they had acquired embedded or encultured knowledge. *Embedded* knowledge was mostly discussed in terms of management and organizations. For many interviewees, learning about systems of patient care was most important. For D13 it was critical to have been and worked in Switzerland about surgery:

'yes I could learn it in Slovakia, but in my country I couldn't see the system they use in Switzerland. It is very complex – the treatment of a particular diagnosis, consulting with other clinics in the same hospital, and interdisciplinary meetings.'

In Hungary, mental health care was organized differently to Slovakia:

'Hungary has a different approach to managing patients. In Slovakia we use more drugs, and they are less specific dugs. The Hungarians spend more time speaking to their patients. You can read about these things in books but you really do need to see how they do things'.

Encultured knowledge was also valued. For one interviewee, this was a negative experience. D6 was left feeling dissatisfied because doctors' lives and work in Germany were different to those in Slovakia. Salaries were higher, and there were less patients to care for: by comparison, *'A Slovak doctor may consider himself a shop assistant'*. But most comments were positive. In part they focussed on openness to new ideas and learning. For D17, the main difference between Slovakia and Sweden was the belief in the latter that doctors have to learn continuously throughout their lives, especially because of rapid

changes in medicine. And D18 valued the fact that his Swiss institute was full of people who had experience of working in other countries, and so were very open and internationalised. There was also the reflective knowledge that came from comparing different systems, which D17 illustrate in terms of the more demanding attitudes of patients in Sweden.

Western European patients know more about their diseases. In Slovakia, patients and relatives don't really communicate with doctors.... Why is it different in Slovakia? It's not part of our training or work culture – or even of our national cultures. Slovak patients are just different'.

All the Slovak doctors reported learning experiences while abroad. For some, these can be understood in terms of technology, but mostly they value the acquisition of tacit knowledge. Embodied and embodied knowledge were particularly valued by those who had gone abroad to acquire specialised training –learning by observation and learning by doing were particularly important. However, encultured and embedded knowledge were also important, learning through comparisons with Slovakia, whether in terms of management systems, attitudes to learning, or the culture of patient care. Even those who felt that they had learnt little that was new about health care techniques considered that they had learnt about different approaches to health and health care.

Barriers to Learning: 'Outsiders' and Language

Bach (2003) suggests that the most important barriers to pursuing careers abroad include registration and licensing, discrimination over jobs and pay, the uncertainties of fixed term contracts, and vulnerability as foreign workers. As a profession, they are different from, say, IT specialists who work in a sector with relatively few national regulations on professional practice. The outcome is that foreign doctors tend to be disproportionately in lower grades and less popular specialisms (Unwin 2001). This implies that mobile doctors will also face obstacles to learning – for example, in particular specialisms, or in managerial positions.

In contrast to the these earlier studies, about one half (10 of 19) of the Slovak doctors reported that they had encountered no major and sustained problems during their sojourns

abroad, although there were sometimes initial difficulties. Not untypical were D14 who considered that *'they accepted me as a partner'* in Hungary, and D12 who commented that *'I must say, I had no real problems. Even if I had some minor troubles, I was helped by my boss ...so I had a great time in the USA'*. Where initial obstacles were encountered, these were just as likely to be social as professional, within this group. D18 had found doctors in Switzerland to be socially reserved, and it was nine months before they started to socialise with him.

But almost one half of the doctors had encountered more persistent or significant problems. Both D3 and D10, in the USA and Germany respectively, complained about the costs of living, and having to rent poor quality accommodation – to the extent that this impacted on their studies. Maintaining relationships with families and friends was not reported to be a problem, perhaps because most had gone for relatively short sojourns, even if they had travelled alone. For the same reason, very few reported problems of social integration for their families abroad.

Of more direct relevance to this study is that a small group (3) reported either hostility or discrimination in the workplace. The most severe was D2 in Germany, who considered she had been *'horribly abused'* by the hospital, working long unpaid overtime hours for. She also encountered hostility as an outsider: *'the less educated staff, in particular, were nasty. If there was nothing they could boast of, they clearly let me know that they were German and I was just a Slovak'*.

Two other doctors also complained of being treated as outsiders. For D8 this was probably less severe, and she was left with contradictory impressions:

'In the USA, nobody knew, where Slovakia was. I was a very exotic animal and they didn't try to communicate with me on the professional level. On the other hand, I saw that they tried really hard to teach me everything they knew'.

D17 similarly reported contradictory experiences of being an outsider, while forming a deep attachment to his clinic manager in the Netherlands:

I wouldn't say that colleagues were exactly difficult. But I was like a country boy from behind the iron curtain. That was how they looked at me. If I made a mistake, which anyone can, then it was because I was from Eastern Europe....But the Dutch colleagues were not really so bad. The chief I had there was the best chief I had in my life.

Even two of these three doctors reported positive learning experiences, despite their status as 'outsiders'. Of course, Slovak doctors, whether working in Europe or the USA, did not by and large face two major obstacles. First many were on relatively short sojourns, or on training visits, and may not have been seen as rivals by their colleagues. Secondly, despite comments about being considered 'exotic', they do not seem to have faced the systematic discrimination encountered by some ethnic minorities. Their experiences are more akin to those of European Economic Area doctors training and working in the UK, two thirds of whom reported that they were either satisfied or very satisfied with their experiences (Robinson and Carey 2000).

Even though most doctors do not appear to have felt excluded or discriminated against as outsiders, language competence was a potentially significant barrier to learning and career advancement. In the interviews, just over one half (10 of 19) reported some language difficulties. This was particularly difficult because language is crucial to practice (D8, USA) and to filling in reports and other medical forms (D6, Germany). Communication with colleagues seems to have been less of a problem, although dialects sometimes posed significant barriers. German and Swiss German dialects were mentioned as being particularly difficult to understand, at least initially. So too, the Scottish dialect that D12 encountered in Edinburgh: *'I did not understand anything, because they spoke some strange language. My first sentence was always "please speak English"'. By the time that he moved to the USA, these problems had dissipated as 'English became my second native language'. Occasionally, the doctors had virtually no command of the language of the host country. D17 had to learn English in the Netherlands. Despite already being fluent in several other languages, 'It was the hardest time in my life. I was self taught, other than a ten day course. After that, life was my teacher'. And D16, also in the Netherlands, had hoped to be able to use his German but found that he couldn't, and had to learn English 'really quickly. I didn't attend any classes. But I shared a flat with English colleagues, and we slept together, worked together, spoke English together'. Language barriers did pose*

challenges for some doctors, but they were resourceful in overcoming these, and none reported that this hampered their longer term learning and working.

Social Recognition of Prior Healthcare Knowledge

We also explored whether the doctors had been able to transfer knowledge to their foreign colleagues. Some of those who had been on training courses did not think that this was a relevant appropriate, which suggests that neither they nor their foreign colleagues considered that they were potentially significant vehicles of knowledge transfer. Amongst the others, the balance was positive (six, compared to three who were negative). The two strongest critics both commented on lack of social recognition experiences in Germany: D7 considered that '*Germans have a distinctive nature – it allows them to recognise only Germans and no other nations*', while D6 commented that '*German colleagues - but not many actually - showed sour faces when speaking with anybody from the East*'. (It is possible that the fact one of the interviewers was British may have precluded comments on similar experiences in the UK).

In contrast, several interviewees considered their knowledge was socially recognized. This mainly related to embrained knowledge. For example, D2 considered that '*I had rich theoretical knowledge of vein surgery and some older German colleagues, who specialised in cardio-surgery, were pleased to learn from me*'. Probably the most positive experiences was reported by D18 (Switzerland):

Perhaps I knew even more in some areas because I had three attestations. Two in paediatrics and one in nephrology. I combined them in paediatric nephrology. I gave this to the Swiss and they gave me a certificate.

Of course, these experiences were contingent and D10, for example, commented that '*I was lucky that my German friends occupied high positions, so other German colleagues recognised me*'. But Slovak medical schools do have a generally sound reputation (specifically commented on by D4 in Libya), and many doctors had considerable experience of practice before working abroad.

In summary, some doctors had been able to transfer knowledge to their colleagues abroad. The fact that most had been unable to do so, largely reflects their perceptions that they had come to learn. However, there were instances of knowledge transfer, mostly of embrained knowledge, where their earlier studies had covered different fields of knowledge to their hosts. There was also some recognition of embodied knowledge, acquired through extensive learning by practice. However, none of the interviewees considered that their hosts had sought to acquire encultured or embedded health-care knowledge from them. In some cases, they commented negatively on this issue, and their ascription as 'exotic outsiders'. This lack of social recognition also hampered the learning of some doctors abroad, although none of the interviewees were entirely negative on this point. Lack of social recognition, however, seems to have been a more persistent – if a minority issue – than other obstacles such as costs, access to quality accommodation, or even language, which was seen as a short term, if important, barrier.

RETURNED MOBILITY AND HEALTHCARE KNOWLEDGE TRANSFER

Changing individual practices: a contribution to healthcare internationalisation

Arguably there has been an 'internationalisation of the professions' (Lenn and Campos 1996) which indicates a shift from national to international standards and, by extension, greater internationalisation of knowledge. This applies to the availability of medical knowledge whether in paper or electronic formats, as well as the growth of communities of practice (Wenger 1998) amongst health practitioners. As noted earlier, some interviewees recognised this in their comments about the convergence between Slovakia and western health systems, in terms of equipment and theoretical knowledge. However, all the interviewees also considered they had acquired tacit knowledge abroad. This was recognised by the hospital managers, and Manager One expressed this strongly: 'I would like it to be an obligation because they can learn so much abroad'. One of our interviewees (D18, Switzerland) similarly reported that his foreign mentor had urged him to 'go home and disseminate what you know', rather than accept another fellowship at his clinic.

The doctors were overwhelmingly positive (14 of 19) about how international experiences had influenced their work after returning to Slovakia. Of the four who were negative (one was ambivalent), two were completely negative even though they recognized that they had

acquired new knowledge abroad. And of the remaining two, one considered that she had improved her self confidence, and other that her life had been changed, but not in her professional work.

Turning to those who were positive, embrained and especially embodied knowledge were valued. D5 had been on a sharp learning curve in dealing with trauma, while on a UN mission, and now applied these techniques in Slovakia. D8 had also acquired new surgery techniques:

American doctors are much more careful with soft tissues and don't use such aggressive techniques. They work more slowly, but this is gentler for the patients. I try to do the same.

There were also positive comments about how new embedded knowledge had influenced their work – but no specific mention of encultured knowledge. This was confirmed by Manager 3 who commented that: *'The main advantage is that the older generation of doctors had an ad hoc approach while the newer generation who have worked abroad are more systematic'*. As argued elsewhere (Williams 2007b), migrants can transfer only truncated versions of embedded knowledge, but this is given added value by reflexivity. As D13 explained about Switzerland:

It is good to go somewhere and see how the different system operates..... When you return home, you can compare procedures and think about whether you should change your routines or not. Sometimes it pays, sometimes not.

Others, such as Manager 2, valued overseas sojourns as a means of developing new social networks, which represents a form of embedded knowledge. Not surprisingly, returnees who were now in senior positions were also positive about junior colleagues going abroad. This was expressed by D12 (USA): *'I learnt one special thing, when working abroad. I want and must make such trips for my young colleagues'*.

Inter-personal knowledge transfers: 'like mosquitoes around me'

The final aspect of knowledge and learning investigated was whether the interviewees had realised knowledge transfers to their Slovakian colleagues after returning. Most (14) were positive, two were ambivalent, and three were negative. One of the latter, D15 (UK), believed that he had not acquired any new knowledge abroad and his colleagues had been more interested in his social experiences. In contrast, the other two blamed their current managers, for not recognizing the new knowledge they had acquired. D6 was bitterly disappointed following her return from Germany:

I expected my colleagues would be pleased to learn about my experience. I even hoped the management would ask me to give lectures. But ... they transferred me to a post, where I couldn't use what I knew.

D17 was most positive, and considered that, after returning from the Netherlands, he had introduced new types of drugs for haemodynamics. There were many ways in which such knowledge could be transferred. Where tacit knowledge was codified, it was more likely to reach a wider audience. D16 explained that *'after I had been in Hungary I learnt about new ways to classify tumours, the Kiel classification. I then spent some time working with Professor Y. Back in Slovakia I wrote a book on the Kiel classification'*. Similarly, after returning from the USA., D12 had published several papers and monographs.

In addition to these tacit to codified knowledge transactions, tacit to tacit transfers were more common, for example in seminars, or simply talking to colleagues. This was vividly expressed by D17: *'the young ones were like mosquitoes around me, and I was really pleased to share my knowledge with them'*. They were also able to use their international networks as conduits for acquiring tacit or codified knowledge, if they or their Slovak colleagues needed advice on particular cases. D18 explained that *'if I have a patient with a rare condition, the books may suggest there are two or three treatments. So I contact Switzerland and ask their advice'*.

Their comments mostly referred to embodied and especially embodied knowledge transfers. But there were also examples of sharing reflective encultured and embedded knowledge. D13 commented on transferring a fundamentally different approach to medical practice from Switzerland:

any opportunity to compare two systems is great. It doesn't matter if your conclusion is positive or negative – you can compare and learn. The main result is that you can think about your daily professional routines and discover new ways of doing things.

However, knowledge transfer sometimes encountered obstacles, as discussed in the next section.

Overcoming barriers: acquiring embedded knowledge

Broadly similar numbers considered that they had (7) and had not (6) faced significant barriers in transferring knowledge within their organizations, whether to individuals or the organization itself. Some younger doctors, who had been on relatively short training courses, did not consider this question was relevant to them.

D12 was emphatic that not only had there been no significant barriers, but *'on the contrary, we have very good cooperation with German and Austrian urologists. They work in our laboratory sometimes'*. Although others did not quote such concrete links, they did consider their colleagues and managers had been open to new ideas. It also helped to approach such knowledge transfer, with appropriate inter-personal skills. As D13 explained, after returning from Switzerland:

I had no problems. But look – I did not return like an overoptimistic, energetic man, who wants to change everything. I didn't try to convert my colleagues to new treatment methods. It wasn't the purpose of my stay and I wasn't planning to change everything. So, I had no problems, when I made smaller changes in Slovakia. They [colleagues] asked about my experience, we discussed some details and what was worth implementing was actually implemented.

Of course, this interviewee had only sought to implement relatively modest changes. D12 similarly argued that :

The ideas I learnt abroad are transferable to Slovakia. OK our systems are different, but you don't need to change the entire system in Slovakia or in this hospital in order to introduce new ideas. You can improve some things.

Others were less sanguine about knowledge transfer. One obstacle was lack of funds for buying new technology (noted by D3, USA). However, the most difficult problem was trying to transfer knowledge between contrasting health care systems. Indeed, D17 commented that he had faced more problems in adapting to returning to Slovakia to work, than in moving to Sweden. The obstacles identified were a combination of a lack of organizational openness to external knowledge, the difficulties of challenging embedded knowledge in Slovak hospitals, and their peripheral individual positions in some instances. The interweaving of power relationships and contested knowledge lay at the heart of such struggles.

D18 commented about the lack of openness he had encountered after returning from Switzerland, linking this to whether the other doctors had experiences of working abroad

There are two types of doctors. . Those who have been abroad are open. Those who have never been abroad scored points, saying things like 'you think you are world champion'. They don't understand what I'm talking about.

To some extent, this was an issue about the limited power of young doctors returning to a system where many heads of section— for various reasons – were suspicious of the challenges posed by enthusiastic young returnees. D10 (Germany) summarised such experiences: *'I was too young to have an impact on the system. I wasn't the chief. You have to be powerful here [the hospital] to make changes'*. But it was not only a question of seniority. One of the more experienced doctors that we interviewed commented that you had to be prepared for changed circumstances when returning (D5, UN mission). The most telling example was D16, a doctor with an international reputation, who had worked abroad in several countries. He recounted that:

I had become chief of the department in 1989. The Dean warned me not to go to Germany for two years. – it would be a problem and I would lose my position. I hoped

to be re-elected when I returned, but I wasn't. In those years the department was sleeping.

He had considered re-emigrating, perhaps permanently, but then had become Head of the Clinic and, with his new power, challenged aspects of the embedded knowledge in the hospital, and implemented many of his ideas.

Others believed, however, that the gap between health care systems was exaggerated. D14, who had worked in Hungary and Austria told us that:

There are no real difficulties. My younger colleagues do accept new ideas, and my boss also accepts them. There are no big problems in moving ideas from Austria or Hungary to Slovakia. These countries were historically close and there are still lots of basic similarities.

Manager Five acknowledged these barriers, but also argued that change could be engineered: *'Medical system abroad operate in different ways and require different way of thinking. It is sometimes difficult to apply [new ideas] in Slovakia, but if you are positive and look for ways, how it can be done, then you can do it'*. These insights demonstrate that knowledge transfer is both contested and socially situated, and that it is necessary to understand the types of knowledge being transferred – reflective embedded and encultured knowledge pose greater challenges than embrained and embedded knowledge.

CONCLUSIONS

While there is a growing literature on health worker mobility, this has mostly tended to focus on flows from less to more developed countries, and on a small number of relatively open health care labour markets such as the UK and USA. However, as Bach (2003: 7) reminds us, 'Countries that in the past were fairly immune to the migration of health professionals are being drawn into an increasingly integrated global labour market in which migration is a more significant and volatile component of human resource planning'. This paper has provided insights into one of the newer foci of health care mobility, Eastern

Europe, through a case study of Slovakia. We have also addressed return mobility, too often neglected in mobility studies.

The paper's central focus is the learning and knowledge transfer experiences of mobile doctors, examining these issues through the lenses of Blackler's (2002) typology of knowledge. This represents the first attempt to explore empirically some of the theoretical ideas about the role of international migration in knowledge transfer outlined in Williams (2007a, b). Given the complexities of learning and knowledge, the analysis is based on qualitative rather than quantitative primary data. The small purposive sample means that we make no claims that our findings being representative, but they do provide insights into this an under-researched topic. We are also unable to comment on the experiences of permanent migrants.

The analysis has provided several insights into learning and knowledge transfer via international mobility. These experiences are, of course, highly contingent, as evident in the particular experiences of those who went abroad in the later years of state socialism compared to the post 1989 period. However, the reforms to the health service have had the effect of stabilizing the number of post for doctors, which in the face of continuing growth in the liberalized medical training sector, implies the possibility of even greater mobility in future. The attraction of international medical students to study in Slovakia, who accounted for 10% of all undergraduate medical students in 2006 (UIPS 2007), is likely to exacerbate this. Additionally, the globalization of knowledge transactions, whether via paper or electronic forms of codified knowledge, or attendances at conferences, has led to a convergence of medical practices, and technologies amongst more developed and a more advanced middle income countries, such as Slovakia.

Despite such convergence, both managers and doctors agreed that international mobility is a source of significant and distinctive learning and, to a lesser extent, tacit knowledge transfer. Embrained and especially embodied knowledge were highly prized in their learning experiences, but so too were the perspectives provide by the encultured and embedded knowledge of different health systems. For some doctors, the acquisition of advanced specialized knowledge – much of it learning by practice or learning by observation - was the return from mobility, but for others it was learning about, what one doctor termed, 'different philosophies' of health care. Most of the doctors did not

experience significant barriers to learning abroad, whether on training programmes or working – but it should be noted that they were ‘other white’, rather than non-white migrants, working mostly in Europe and North America. Most of the barriers to learning abroad were overcome after initial difficulties, for example, in terms of language competence. But some doctors suffered persistent obstacles related to their positions as outsiders.

The mobility experiences did inform their work as doctors after returning to Slovakia, although a small number considered that they were marginalized or ignored by their managers. There were also positive stories about knowledge transfer to Slovak colleagues who, as one interviewee memorably expressed it, ‘were like mosquitoes around me’. However, there were differences in the degree to which organizations were open to external knowledge, and junior – and sometimes even senior figures – complained about the difficulties they had in introducing new ideas into systems of strongly embedded knowledge, infused by centralized power structures. But knowledge transfer was possible, whether in codified or tacit forms, and whether involving minor changes within existing systems, or even replacing those systems. Above all, however, the findings underline the complex interplay of different types of knowledge across space and time.

In terms of future research, the most obvious need is for further studies to extend this case study. But there is also need for further research using additional ethnographic methods, such as observation or diaries, to allow deeper exploration of the processes of learning and knowledge transfer. And, by implication, this also points to the need for studies that incorporate not only migrants, but also the non-migrants with whom they interact in the countries of emigration and return.

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