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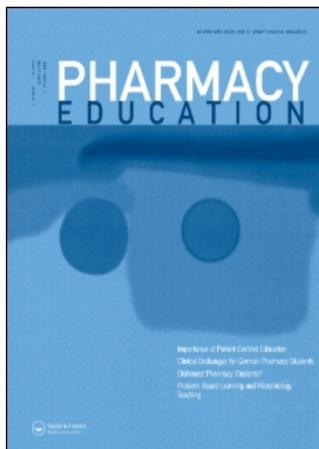
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Academic mobility in pharmacy faculty: An exploratory study

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Abstract

Introduction: Academics who take part in international exchange programmes gain invaluable experience, which can add to their students' educational experience (Tremblay 2004). These programmes provide the opportunity for educators to share knowledge and ideas with different cultures and disseminate gained knowledge back to their home institute.

Aim: The aim of this study was to evaluate current international trends in the exchange of academic teachers in the field of pharmacy and pharmaceutical sciences and to identify factors that promote or deter academic mobility.

Method: A questionnaire containing 28 statements relating to academic mobility was posted or emailed to pharmacy academic staff at universities on all continents.

Results: Principal components analysis (PCA) yielded four factors, representing 50.1% total variance. These were a proactive attitude towards Continuing Professional Development (CPD), language and culture as barriers to mobility, personal and situational factors as barriers to mobility and potential knowledge gain as a motivation for mobility. Results suggest that academics who had worked abroad had a more proactive attitude towards CPD ($t = -2.63$, $p = 0.009$) perceived a greater potential knowledge gain from international academic experience ($t = -4.61$, $p < 0.0001$) and perceived lower language barriers ($t = 3.49$, $p = 0.001$) than staff who had not worked abroad. Other results suggest demographic factors were related to these factors.

Discussion: It is not possible from this study to ascertain whether these differences in attitudes and perceptions are motivating factors for academic staff to engage in international exchange programmes, or are a result of having worked abroad. If it is the former, staff could be encouraged to engage in mobility programmes by emphasising the benefits of professional development. If it is the latter, the potential knowledge gained from working in other countries could be highlighted. In addition, if language is seen as a barrier to working abroad, lessons in the foreign language could be provided. Longitudinal studies would clarify the direction of these relationships.

Keywords: *Pharmacy faculty, academic teachers, questionnaire, principal component analysis, mobility*

Introduction

It is now common for university students to travel quite extensively during their studies. They may engage in exchange programs with other countries and network with other students while at national and international conferences.

Student mobility has been made easier recently by developments in communications and proactive student recruitment policies in many host countries, giving way to a growing internationalisation of education systems worldwide (Tremblay, 2004).

It is now recognised that teaching staff can benefit from international exchanges. Instructors who participate in exchange programs gain invaluable experience, which can add to their students' educational experience. They bring to them ideas, interpretation and techniques drawn from international intellectual sources (Hoare, 1994). These programmes provide the opportunity for educators to share knowledge and ideas with different cultures by placing them in a new environment. The visiting instructors are also able to share their own approaches with the host institutions. When they return to their

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own university, they are able to share their range of experiences with their students. This is particularly beneficial to students who may not be able to participate in an exchange program themselves. Thus, various methods of teaching and learning are shared and the profession is enriched by the experience.

Host countries can also benefit in many ways (Tremblay, 2004): by allowing students to train abroad when educational opportunities in the country of origin are insufficient (this is more common in developing countries); by interaction with the local population, developing linguistic, cultural and social skills essential for competition in labour markets for highly skilled individuals; by receiving additional tuition fees and expenditure on accommodation and subsistence; through foreign students becoming part of the labour market; and by filling skills shortages. In addition, the visiting institution can benefit from academic mobility by bringing back ideas and innovation, stimulating research output and other activities and generally preventing stagnant inertia (Hoare, 1994).

In pursuit of greater professional development and employment opportunities, there is a risk that students and graduates may opt to remain abroad. Only half of the foreign students in the USA and France returned to their country of origin within two years of completing their doctorate or post-doctorate studies (Meyer & Brown, 1999). This trend can depend on employment opportunities and maintaining professional and familial ties with the homeland.

Academic mobility describes the exchange of knowledge and skills through the international exchange of academics. The European Commission recognised this and developed the Erasmus scheme which encourages mobility and exchange of European teaching staff and students in order to disseminate scientific discovery and advancing knowledge (http://ec.europa.eu/education/programmes/socrates/erasmus/erasmus_en.html).

Such exchange is vital to promoting positive changes in pharmacy education generated through the input of novel ideas, practices, cultural diversity and knowledge. It is important to identify factors that could be utilized to enhance pharmacy education, as it is the quality, content and design of the pharmacy curriculum that has the greatest impact on the professional development and the role of a pharmacist. In order to progress internationally, the profession must strive to communicate and actively participate in the global exchange of knowledge, skills and ideas.

During the world congress of the International Pharmaceutical Students' Federation (IPSF)[†], the question of the extent to which teachers usually travel on international exchange programmes was raised. A pilot survey was designed and conducted by an IPSF scientific sub-committee in 2003, with the aim of

exploring trends and attitudes in the field of pharmacy education.

Aim

The aim of the project was to evaluate current international trends in the exchange of academic teachers in the field of pharmacy and pharmaceutical sciences and to identify factors that promote or deter academic mobility.

Method

The project aims and method were developed at the 2002 IPSF Congress in Budapest, Hungary. Potential items for inclusion in a self-completion questionnaire were developed from several focus group workshops and grouped into common thematic groups. Subsequent review of these items was undertaken by the project personnel. Items were reviewed for grammatical sense and content validity. The resulting questionnaire was sent for further review to IPSF members and revised by the project team.

The final questionnaire contained 28 statements relating to potential reasons or motivations for academic mobility. Respondents were asked to rate their agreement to these statements on a 5-point Likert scale from "strongly agree" to "strongly disagree". Terminology, such as going "abroad" or on an "international exchange" was defined in the background information supplied with the questionnaire; these terms were classified as meaning a temporary stay to a different country for research or teaching purposes. Demographic and other information such as nationality, country of work and years since graduation from undergraduate pharmacy course were also recorded.

The questionnaire was distributed electronically or in hard copy to pharmacy academic staff at universities on all continents through local IPSF networks and individual university contacts of the members of the Federation. It is recognised that this may result in a truly random sampling method, but does represent a snapshot of differing opinion and was feasible within the resources available to IPSF for conduct of the study.

Completed questionnaires were coded and data was subjected to analytical survey techniques, including correlational and principal components analysis (PCA). PCA is a technique used to reduce a large number of items down to a smaller number of components or "factors", where factors consist of several similar items whose scores are correlated.

Results

Sample characteristics

The sample comprised 160 responses, of which 62.4% were male. The mean age of respondents was 43.7

Table I. Proportion of completed questionnaires from world regions ($n = 160$).

| Regional group | Proportion of completed questionnaires (% of whole sample) |
|---------------------|--|
| Mediterranean | 30.9 |
| UK | 17.9 |
| North/West Europe | 17.3 |
| Nordic countries | 12.3 |
| North America | 6.8 |
| Central/East Europe | 4.9 |
| Australasia | 3.7 |
| South East Asia | 3.1 |
| Africa | 1.9 |
| Missing | 1.2 |

years (SD 9.75) and the mean time since graduation was 19.4 years (SD 10.28). Twenty-four countries were represented in the sample; these were recoded into nine world regions. Nearly one third of responses were from universities in Mediterranean countries; another third were made up from UK and other North and West European universities (Table I).

Of the sample, 65.4% had worked in another country. Figure 1 shows the mean number of countries that participants from each world region have worked in aside from their present country of work. Academic staff from the UK and USA worked in the least number of countries. In contrast, Australasian, Mediterranean and African academics are the most frequent travellers.

Factors associated with academic mobility

The PCA yielded four factors, representing 50.1% total variance. These factors were tested for reliability and internal correlation and subsequently scored for use as analytical measures. Cronbach's alpha ranged from $\alpha = 0.54$ to 0.81 (Table II).

Factor scores of respondents who had been abroad and those who had not were compared (Figure 2). There were significant differences for all factor scores except for "personal barriers" (factor 3: $t = 1.49$, $p = 0.137$). Results suggest that academics who had worked abroad had a more proactive attitude towards CPD ($t = -2.63$, $p = 0.009$) and perceived a greater potential knowledge gain ($t = -4.61$, $p < 0.0001$) than those who had not. In addition, mobile academics perceived lower language barriers ($t = 3.49$, $p = 0.001$) than staff who had not worked abroad.

Factor scores were correlated with other demographics. Factor 1 and time since graduation ($\rho = -0.287$, $p = 0.001$) shows a higher proactive attitude towards CPD and professional change for those who graduated more recently. Factor 2 and time since graduation ($\rho = 0.169$, $p = 0.049$) is a weak effect but shows that older academics perceive greater barriers with language. Factor 2 is also weakly correlated with the number of countries visited ($\rho = -0.196$, $p = 0.014$), indicating less of a language barrier with the more countries visited. Factor 4 correlated with number of countries visited ($\rho = 0.315$, $p < 0.001$), signifying that the greater

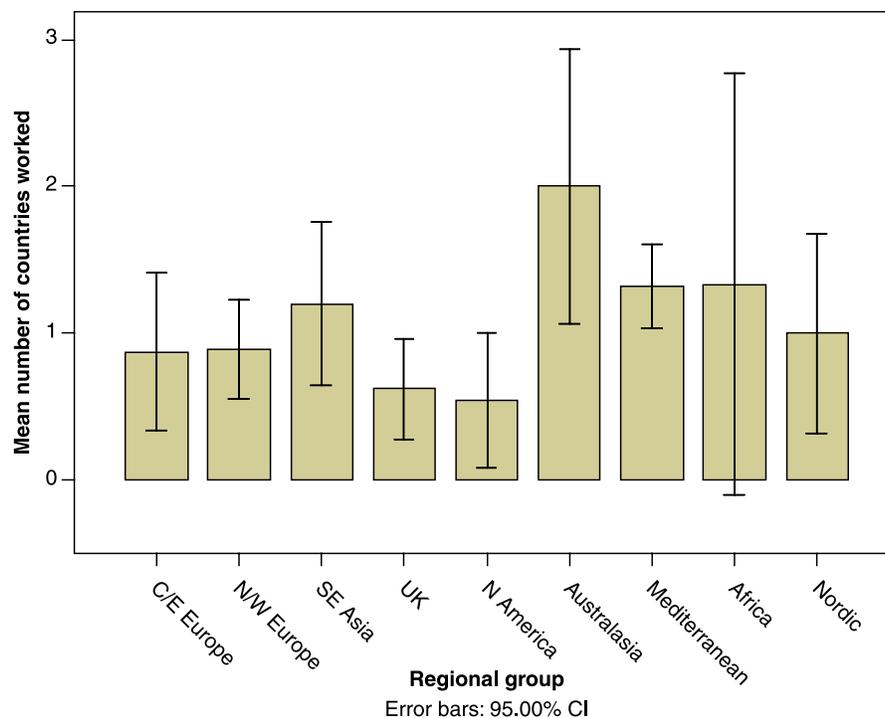


Figure 1. Mean number of countries pharmacy and pharmaceutical science academics have worked in, by world region.

Table II. Factors yielded from questionnaire items.

| Factor | Factor type | Items | Alpha score (α) |
|----------|--|--|-----------------------------|
| Factor 1 | A proactive attitude towards CPD | I have much to gain professionally from embarking on an international exchange I have much to gain personally from embarking on an international exchange I feel like going abroad would contribute to my CPD. I am too old to change | Four items; $\alpha = 0.81$ |
| Factor 2 | Language and culture as barriers to mobility | I do not have the time to invest in improving my language abilities, which would be necessary to partake in international exchanges I feel that the prerequisite language requirements would deter me from investigating international exchange opportunities I would only go on exchanges to countries, which have the same native language I have no desire to expand and improve upon my language abilities in order to undertake international exchanges | Four items; $\alpha = 0.80$ |
| Factor 3 | Personal and situational factors as barriers to mobility | I value the security of my current position and feel that this would be undermined through relocation Now, I am too busy, but after my retirement I would love to go abroad I am concerned that my children will experience unnecessary stresses, which could be detrimental to their future educational and personal development I am unsure as to how the experience will benefit my career and whether the move would lead to future career progression in my resident country I would like to go abroad, because my family would love to move I am concerned that my spouse's salary and benefits could be eliminated or diminished as a result of an international career move | Six items; $\alpha = 0.54$ |
| Factor 4 | Potential knowledge gain as a motivation for mobility | I am interested in furthering my knowledge through opportunities presented by fellow international colleagues Internationally, there is increasing attention to knowledge sharing and information dissemination between educational faculties I believe that the international resources and infrastructure available in my specialist area would encourage continued professional development I feel that my professional knowledge and skills are valuable to the international academic community | Four items; $\alpha = 0.62$ |

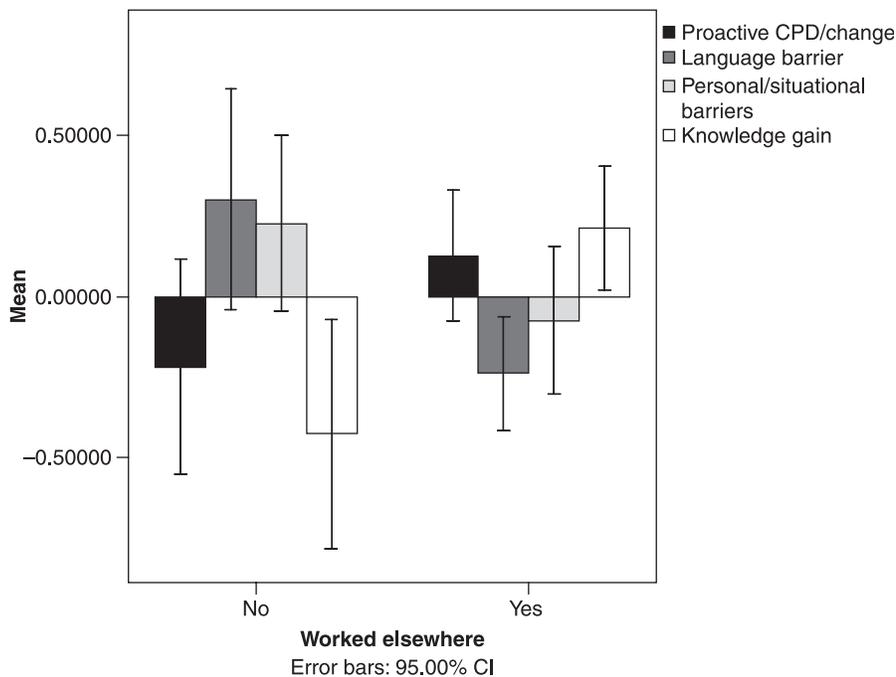


Figure 2. Comparative analysis of factors between mobile and non-mobile academics (z-scores).

number of countries visited, the greater the perceived potential knowledge gain as a motivation for mobility.

Discussion

Overall, results suggest that academic establishment who engage in mobility programmes are likely to have a proactive attitude towards CPD and perceive greater potential knowledge gain from international exchanges, in addition to perceiving lower language barriers.

It is not possible from this study to ascertain whether these differences in attitudes and perceptions are motivating factors for academic staff to engage in international exchange programmes, or are a result of having worked abroad. If it is the former, staff could be encouraged to engage in mobility programmes by emphasising the benefits of professional development. If it is the latter, the potential knowledge gained from working in other countries could be highlighted. In addition, if language is seen as a barrier to working abroad, lessons in the foreign language could be provided. Longitudinal studies would clarify the direction of these relationships.

In addition, proactive attitudes towards CPD and professional change tended to increase as time from graduation increased, suggesting that older academics are more likely to seek out ways of continuous professional learning. It is possible that academics with more experience appreciate the benefits of life-long learning and development more than younger academics. Or, that younger academics feel more in touch with recent developments in pharmacy due to being more recently graduated, whereas older academics necessarily have to be more proactive in keeping abreast of news, events and changes related to pharmacy.

Further research could also investigate whether mobility experiences were predominantly research or teaching related as there may be differing motivations for each. In addition, the impact of staff working abroad on pharmacy students' education is worthy of exploration. To have evidence of positive effects on the staff members and students in both the host and the home university may encourage pharmacy faculties to fund more international exchanges for their staff.

Limitations

Questionnaires were only sent to pharmacy academics in universities at which IPSF had contacts. In addition, the number of questionnaires sent was not recorded and therefore response rate could not be calculated. In addition, 65.4% of the sample had worked in another country and the distribution of respondents over the world was not equal, with the European countries being over-represented. All these issues together may have resulted in biases in the sample, due to the sampling strategy, the response rate and the respondents who were possibly unrepresentative of academics universally. Therefore the generalisability of the study is limited. It would be useful to continue this study on a larger scale in all continents.

Note

[†]Founded in London in 1949, the International Pharmaceutical Student's Federation is the oldest international faculty based student organisation in the world. Today, the IPSF represents more than 350,000 pharmacy students in about 60 countries throughout the world. IPSF is a non-political organisation and its objective is to study and promote the interests of pharmacy students and to encourage international co-operation amongst students worldwide.

References

- European Commission Education and Training Erasmus Scheme, http://ec.europa.eu/education/programmes/socrates/erasmus/erasmus_en.html.
- Hoare, A. G. (1994). Transferred skills and university excellence? An exploratory analysis of the geography of mobility of UK academic staff. *Geografiska Annaler*, 76B, 143–160.
- Meyer, J. B., & Brown, M. (1999). Scientific diasporas: A new approach to the brain drain, Discussion paper no. 41. Prepared for the World Conference on Science, UNESCO-ICSU. Available from www.unesco.org/most/meyer.htm.
- Tremblay, K. (2004). Links between academic mobility and immigration. In *Symposium on international labour and academic mobility: Emerging trends and implications for public policy*, Toronto, Canada; October 2004.