INTRODUCTION

Today, 85% of the world's population lives in countries categorised as low and middle income (LAMI) (World Bank 2003). Relatively few addiction journals are published in these countries (see Table 2.2, Chapter 2), despite the growing need for specialized knowledge in countries like China, India, South Africa, Mexico and Brazil, where addiction problems are prevalent. Presently, between 5% and 9% of the world's population grows up with English as their first language. The dominance of English within scientific communication is, however, overwhelming. It is estimated that 80% of the world's scientific articles are in published in English language journals (Montgomery 2004) whereas about two-thirds of the known addiction journals communicate in English.

This chapter deals with the challenges encountered by addiction scientists who work in countries with few resources as well as those whose first language is not English. The aims of the chapter are to discuss: a) the practical and professional issues that are faced by these scientists; b) how authors who come from these countries can improve their chances of publishing in English language journals; c) the possibilities for authors to publish in both English and an additional language so they can communicate to different audiences; and d) how to decide whether an article serves the public best by being published in the author's mother tongue and/or a local or regional journal.

THE STRUCTURAL BARRIERS

THE SKEWED DISTRIBUTION OF SCHOLARLY COMMUNICATIONS

There is a fundamental imbalance between available resources and resource needs in the addiction field. On the one hand, there is as noted above a disproportionate concentration of addiction science and addiction publishing in the richer and English speaking countries (North America, Europe and Australia). On the other hand, the majority of the world's population and an increasing share of the addiction problems can be found in low and middle income countries and countries where the native language is not English (Room et al. 2002). This presents a serious challenge to those interested in the most effective and efficient use of current resources in the interests of public health on an international level.

In November 2003, the World Health Organization (WHO) arranged a meeting on 'Mental Health Research in Developing Countries: Role of Scientific Journals'. The joint statement by participating journal editors and WHO (2004) describes the barriers
to scientific publishing experienced by researchers from low and middle income countries in the mental health research field.

The document states that the accumulation of scientific knowledge is dependent on free and accessible communication across the world. The promotion of good research increasingly requires not only the ability to access research from other parts of the world, but also the opportunity to communicate research results. Researchers from LAMI countries often have difficulties in publishing their findings in scientific journals. The reasons include limited access to information, lack of advice on research design and statistics, the difficulty of writing in a foreign language, as well as material, financial, policy and infrastructural constraints. Limited appreciation of the research needs of LAMI countries and the comparative anonymity of their researchers may constitute additional barriers. According to the WHO (2004, p. 226) report, many researchers from LAMI countries 'are daunted by the seemingly insurmountable chasm between their research effort and its publication in international journals'.

Most of these problems could be applied to the addiction field. Many countries with few resources are striving to develop scientific research capabilities. These efforts do not always have sufficient political support. Politicians and decision makers in these countries -- as in many others -- are not necessarily interested in whether certain measures are evidence-based or not. Also, research can be difficult to translate into policy. For these reasons, research and scientific publishing may not be high on the list of political priorities. Career scientists and professionally trained clinicians are needed, but except for government-sponsored university programmes, there is little support for clinical, epidemiological and policy research. Very few countries have specialist addiction societies where locally relevant and topical problems can be discussed and solutions developed. Training opportunities are lacking. In some countries the number of masters and doctoral students has grown, as well as specialization courses at the universities. But many addiction professionals entering the work force are clinicians in private practice who may do academic work voluntarily or for a small salary. Under the circumstances, the development of addiction research will be slow.

Communication with researchers in other countries is often restricted by lack of resources. Many libraries have run out of journal subscription funds and addiction journals are seldom a priority. In some countries, influential research-funding agencies are now supporting programmes that give most universities free access to online periodicals. These programmes have improved the availability of international research, but the situation is still not adequate.

The formal communication of locally relevant addiction research is encountering other challenges. Local journals are necessary to deal with sociocultural peculiarities and the priorities of different societies. Presently there is a strong movement in several countries to publish good quality articles, preferably in English, in local journals. Because competition in the scientific field is intensifying, publication in indexed journals is a priority for researchers who need scientific credit for their work. Alcohol and drug science is, however, a young and relatively small field. Local addiction journals have difficulties meeting the criteria for inclusion in the US and international
indexing systems, such as the Institute of Scientific Information (ISI) and MEDLINE. A sign of how problematic the situation can be is that no addiction journal from the Latin American region has yet been included in the register for Latin American and Caribbean health sciences, LILACS (see http://www.bireme.br/abd/E/ehomepage.htm, accessed 23 August 2004). As a consequence, many addiction scientists publish in indexed public health or mental health journals when writing for the local or regional audience in this part of the world. Only a small number of these articles are published in English. Publishing in these journals is, of course, in itself not a bad thing. But for the development of the addiction field in a particular country or region, a specialized journal can play an important role. In India, the situation is no less problematic. There is no local language or English language addiction journal, and the only psychiatric journal which publishes addiction articles is not indexed. Indian researchers working in institutes that demand publications in indexed journals therefore have no option other than to publish in English language journals from outside India.

However important national or local journals are, it sometimes can be hard for a researcher from a country with few resources to rely on them. These journals often have limited funds, may be published irregularly, or have long delays between submission and publication of an article. Not infrequently these journals will find themselves in a vicious circle: they are not regarded as prestigious enough, which means that they will not get enough good articles, which in turn means that they will not get enough resources and not enough good articles.

The International Society of Addiction Journal Editors (ISAJE) has acknowledged the importance of getting journals from all parts of the world, and published in different languages, indexed and included in the important databases. A work group with the aim of improving this situation has been established within the organisation.

MARGINALISATION OF LAMI RESEARCH IN THE INTERNATIONAL DISCOURSE

In academia nowadays, faculty are often evaluated by the number of their publications and the impact of the journals in which their papers are published. Publishing in high impact journals has become the principal aim for many, owing to the fact that grants, positions and funding go to scientists, faculty and departments that succeed in this respect (see for instance Linardi et al. 1996). When research funds are in short supply, resources are concentrated in the hands of a few investigators, and the dominance of impact factors contributes to this concentration.

The Institute of Scientific Information, which publishes the most commonly-used impact factors, has a less than complete coverage of the world’s scientific journals. English language journals and especially US journals are better represented. This means that, in general, research conducted in LAMI countries and reported in languages other than English is under-represented. Of Brazil's 4,580 nationally indexed scientific journals, for example, only 117 are indexed in the ISI database (Targino and Garcia 2000). See Chapters 2 and 4 for a full discussion of this topic.
The problems for LAMI researchers who seek to publish internationally may be compounded by structural factors associated with the management of the English language scientific journals. A survey of the editorial and advisory boards of leading international journals in the field of mental health (e.g., Archives of General Psychiatry, American Journal of Psychiatry, Schizophrenia Bulletin, British Journal of Psychiatry, Adolescent Psychiatry) found only four representatives from the LAMI countries out of a total of 530 board members (Saxena et al. 2003). The absence of LAMI representation on the editorial boards of the major journals may explain why authors from developing countries often feel that their articles do not receive sympathetic treatment.

Thus, research from LAMI countries is likely to be regarded as less relevant in the international discourse. This is supported by a study of articles published in Addiction (West and McIlwaine 2002), which found that papers from LAMI countries were cited significantly less often than papers ranked by independent peer reviewers to be of the same quality as those from the developed world. Other studies have shown that an increase in the number of articles published from LAMI countries is not paralleled by a similar increase in citation of these articles (Volpato and Freitas 2003; Holmgren and Schnitzer 2004).

Other factors which may account for the relatively limited number of publications from these countries include poor research methods, inadequate sample sizes, less sophisticated statistical analyses, lack of national or regional journals and limited English-language competence. In a survey of 116 international journals on physics, chemistry and biology (Gosden 1992, p.130), about one-third of the responding editors reported that bias existed against papers submitted by writers who did not have English as their native language. Some stated specific bias against certain parts of the world or certain countries, based on how their science culture was perceived. If it appeared that multiple publications were non-controversial in a particular country, or that the citation tradition was ethnocentric, this tended to lead to negative bias towards all papers from that country.

THE LANGUAGE AND CULTURE TRAP

English is the lingua franca of scientific research today and will be in the foreseeable future. However, as Montgomery (2004) points out, to call it ‘the universal language of science’ is ahistorical and possibly inattentive to the complex linguistic developments taking place in the world. In the future, more and more people will be bilingual and languages other than English will grow in importance. For the present, however, the English language has a dominant position in addiction science. For instance, all addiction journals with an ISI Impact Factor (see Chapters 2 and 4) are published in English, and none of the addiction journals published in other languages has an Impact Factor.

The scientific world today is dominated by a small group of rich countries. The USA is in the lead, followed by UK, Canada, Australia, and the European nations which are oriented towards a similar scientific tradition and where English language training is
well developed. The disproportionate influence of US research extends to basic science, prevention, epidemiology, and treatment research. American researchers tend to cite American researchers (see further discussion in Chapter 4 and in Babor 1993). The same applies (perhaps to a lesser degree) to other countries, but with the dominance of journals from the USA and other English language or English-language oriented countries there is a bias across the research field as a whole. Research that is performed in the USA may represent a priori for many Anglo-American readers - and other uncritical readers as well - a more universal truth than results from a study conducted in a country such as India. Researchers in some Western nations (for instance the Nordic countries) have adapted to the dominant research paradigms and seem to manage quite well, in terms of citation measurement (Ingwersen 2002). The under-representation of non-English speaking nations in indexed journals and in cited research extends to several developed countries, such as Spain, Germany and France (Maisonneuve et al. 2003), suggesting that general linguistic and cultural influences may be at work. The US dominance of science on an international level may imply a serious bias in the selection of research topics, questions asked, methods used, and types of research conducted. One should remember that US research is primarily (and legitimately) oriented towards that country's own social and economic priorities, which do not necessarily apply to cultures for instance in the developing world. The problem of the US dominance is thus not only one of maldistribution of opportunity.

There are other problems inherent in this hierarchy within addiction research. Addiction science has at least two subdivisions - basic and applied research. The former is more or less universal in its nature, and scientific knowledge from basic research can be applied everywhere in the world. The latter is contextual. Public health research, for instance, belongs to this category. Today, public health research in LAMI countries suffers from a double disadvantage: the difficulty in getting published and quoted in the influential journals; and unfair competition at the national and international level with the much better funded neurobiological research (cf. Midanik 2004). In short, this means that the world literature on substance misuse is rarely determined by the research priorities of the developing countries.

Commerce plays a role as well and may not favour the public health interests of the poorer parts of the world. Randomized clinical trials of new medicines have a greater probability of being published than brief interventions to treat alcohol and drug users. Not all policymakers realize that alcohol and tobacco are more important issues than heroin and cocaine in the developing countries (Ezzati et al. 2002).

For researchers from LAMI countries, some of the problems in getting published come from not being familiar with the codes of international scientific communication. In the above-mentioned survey of physics, chemistry and biology journals (Gosden 1992), the editors summarized the problems encountered by researchers who were not native English speakers. The most often mentioned problem was that research results and discussion were not well written: that is, an inability to communicate the importance and relevance of the research. Another important problem was the fact that authors did not know the written and unwritten 'rules of the publishing game'.

CHAPTER 3: BEYOND THE ANGLO-AMERICAN WORLD: ADVICE FOR RESEARCHERS FROM DEVELOPING OR NON-ENGLISH-SPEAKING COUNTRIES

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For instance, they failed to cite sufficient references to earlier research, and were not familiar with the argumentation style or scientific level of the journal (ibid, pp 132-133). Writing a good scientific article for an international audience demands not only technical skill, such as being able to carefully follow the instructions to authors, but also an acquired competence in social communication. The best way to gain this is by reading some of the journals mentioned in Chapter 2 and getting feedback on your writing from more experienced researchers. This is not always easy in a LAMI country.

**WHAT DO WE KNOW ABOUT ADDICTION JOURNALS' LANGUAGE AND CULTURAL POLICIES?**

Unfortunately, we have almost no research to show how addiction journals in general deal with articles from LAMI countries, and only a small amount of information about their language policies. However, in two surveys conducted by ISAJE, Edwards and Savva (2002a; 2002b) mapped the language policies of 14 English language journals and nine non-English language journals.

Half the editors of the English language journals who responded had not mastered any language besides English. This is a handicap in a multilingual scientific world. Based on the ISAJE questionnaire, it seems that the English language addiction journals outside the USA have greater international representation on their editorial boards. Fifteen percent of the editorial board members of the US journals represented other nationalities, while the figure for other English language journals was 79%. The composition of an editorial board can give an indication of the internationalism of a journal. We have no exact knowledge of how the LAMI countries are represented on the editorial boards, but they are likely to be few.

Among the responding English language journals, the share of research articles from non-English language countries varied from 0% to 57%. There was large variation in the rejection rates of articles by non-English language authors: from less than average to three times higher. In this, perhaps biased, sample about one-third had a policy to give special support to authors with other mother tongues. Only three journals declared that they could not give any language editing support. Of the non-English language journals responding to the questionnaire, the majority published only in the language of the country of publication. Several published articles that had already been published in English. Only one journal had resources to finance translations. Several had regional or international ambitions. All the editors knew English, and several were competent in more than one foreign language. All journals had English summaries. The editorial boards often had representatives from other countries.

**WHAT CAN AN AUTHOR DO?**

In this section we turn to some practical suggestions that may help to correct the imbalance, level the playing field, and improve the diversity of addiction science.
CROSSING THE CULTURAL BORDER TO THE ENGLISH LANGUAGE PUBLICATIONS

As noted above, it may be particularly difficult for authors from LAMI countries and non-English speaking countries to get an article accepted in an English language journal. It is thus especially important for a LAMI country author to show that he or she has mastered the rules of the game: to carefully follow the instructions to authors, checking that the structure, the language and the presentation of the study and its results are clear and logical and that the references are correct. If the formalities are not followed, even a study containing strong and original findings might immediately be turned down. Cultural bias may put higher demands on the substance of research from countries where resources are few. The famous Chilean pharmacologist Jorge Mardones concluded in an interview (Edwards 1991, p.392) after a long career:

I do not know why there is a generalized attitude of doubt concerning results reported in papers coming from Latin American laboratories. In order to overcome this situation, we need to be extremely certain about the accuracy and high significance of our results, before submitting a paper for publication. I feel that this is an advantage, because the worst thing a scientist can do is to pollute the scientific environment with data of poor value.

Before submitting a manuscript, an author should find a mentor or an experienced investigator who could read through the article and give advice on the presentation of the results. This may however be difficult in many countries where the addiction research milieu is very small. A survey of Nigerian papers published in a psychology journal showed that more than 75% of the articles were published by single authors, a figure that was much higher than that found in American journals at the time (Obot, personal communication, 2004). One suggestion is to try to work in a team that includes people with expertise in different areas, such as statisticians and social scientists. This may help to improve the quality of the study, and enhance its appeal to a greater number of readers. Another possibility is to work within a joint project with researchers from non-LAMI countries, or within a large, international network. This is in most cases only possible if you have already published in an international English language journal, or work with other researchers who have international contacts and reputation. International conferences can provide possibilities for networking, but to attend them you need financial resources.

Technical requirements are relatively easy to identify and follow. A more difficult challenge is that conventions about how to write an article differ among countries. Burrough-Boenisch (2003, p.2), in a text on editing problems, gives some examples that show how culturally embedded our scientific writing endeavours are. For an Anglo-American, the author states, the German tradition of writing may seem both pretentious and less well organized. The four-unit pattern of writing, which is traditional in some Asian cultures, such as China, Japan, Korea and Thailand, may give an incoherent impression. And when French scientists transfer the French convention of reporting science in the present tense to their English writing, they seem to be stating general truths, rather than describing their own procedures and findings.
In most cases it is not possible for an author to communicate with the readers of a journal if she or he cannot talk to them in the 'scientific dialect' of that particular publication. (This is of course also true when you choose a publication channel within one linguistic area.) This requires that the author is fairly well acquainted with the specific journal, knows what types of article are published and in what format.

Some English language journals are more sympathetic than others to articles from other countries and cultures. This is possible to find out by:

- looking at the journal's mission statement to see if they have any policy regarding articles submitted from different countries or cultures;

- checking whether the journal has previously published articles by non-English language authors;

- checking to what extent the editorial board is international, which may imply a greater understanding of cultural diversity and a more multicultural peer reviewer pool; and

- contacting the editor to find out if the journal may be interested in your work - pointing out its particular importance and the possible mitigating circumstances of being from a LAMI or non-English speaking country.

CROSSING THE LANGUAGE BORDER

Montgomery (2004) points out that the linguistic future of the world will be one of diversity, bilingualism or even multilingualism. An important goal in this world will therefore be 'to increase tolerance towards variation in scientific English - to avoid the imperial attitude that one standard must be obeyed' (p. 1335). Until this tolerance is developed, however, authors of scientific articles have to take the language issue seriously.

As noted above, the way in which authors present their results is often crucial to how the editor and reviewers will view the research report. The importance of good English language usage cannot be over-emphasised. The presentation of the study and the results is particularly important when the topic or setting may seem new and exotic to the editor and reviewers. It is not just a matter of using the right terminology. Many English-speaking editors and reviewers (in the same way as many French, German or Swedish speaking editors) will have a rather strict idea of what constitutes good language. Gosden (1992), in his survey of editors of physics, chemistry and biology journals, identified features that English language journal editors found most important when judging texts by non-English language authors: sentences should be linked logically and clearly; they should be grammatically correct; the language used when making your claims should be skilful; and the author should use language in a way that reflects awareness of his or her status.
Should one do a full language check before sending in an article? Although it is expensive and time consuming, the answer is YES. If a researcher is certain that she or he has a good case, a more experienced person has read the article and found it good, and the author wants to publish it in a journal with no resources to help with language editing, it will definitely increase the chances of acceptance. There is also the risk that if the paper is considered to be a 'borderline case', it will be rejected if there are language problems. However, in rare cases, if the author knows that the journal and the editor have a policy of accepting articles by non-English language authors and has the resources to do a language check, it may not be necessary to have perfect English at the time of the first submission. But this is a case where contacting the editor beforehand is definitely worthwhile.

KILLING TWO BIRDS WITH ONE STONE: DUAL LANGUAGE PUBLICATION

Where the topic of the article is such that it would be important to publish both at the national level and in an international journal, the author could consider trying to publish the same text in more than one language. In fact, if an author feels that his or her results should be considered in the development of local policy, publication of the results in an international journal may very well give the findings more prestige among the politicians of his or her country. Some addiction journals will agree to publish an article that has already been published in another language, or to simultaneously publish the article in several languages. A few addiction journals have officially established networks with this aim (Addiction and Exartisis; Addiction and Sucht; Drugs: Education, Prevention and Policy and Nordisk alkohol- & narkotikatidskrift). Others may be sympathetic to this idea.

These practices do not violate ethical codes regarding duplicate publication (see Chapter 12) as long as the editors agree, and the simultaneous publication is mentioned along with the source of the original. The general rule for the author is to find out the policy of the journal(s), if there is an interest in presenting the article to several audiences.

IMPORTANCE OF NATIONAL AND LOCAL PUBLICATIONS

As a researcher one should not be blinded by the prestige of internationalism, but instead try to protect the diversity and applicability of research. The diffusion of relevant research to a national audience fulfils important democratic, social and health policy aims. The development of culturally specific research is also important for the global development of addiction research. Nevertheless, some research may lack universal relevance.

Research on specific treatment systems, special treatment modalities or on effects of nationally implemented policy measures in LAMI countries may sometimes be irrelevant outside their national or regional audience. In parallel, some of the research published in the big international journals, based on findings in North America or Europe, may not be relevant in other cultural circumstances or in developing countries.
As long as most of the important databases and indexing systems favour English language journals and journals from the affluent countries, journals published in LAMI countries and non-English journals may be regarded as less prestigious publication channels. However, in some countries, such as Nigeria, there has been a growing acceptance of locally published papers as part of a person's academic curriculum vitae. This situation may be helped by the recently established *African Journal of Drug and Alcohol Studies*. The journal was set up in response to the fact that the number of addiction researchers in Africa has grown and that some of the issues of national importance would not be of interest to international journals, the only channels for African researchers in earlier times. The wider acceptance of local publications also recognizes the reality that it is difficult for many researchers to get published in international journals. The number of scientists has increased, but not the resources and support, such as libraries and translation services, which are needed to conduct the kind of research and produce the kind of article that would be interesting for an international journal. This does not mean that the research is not valuable.

For an African researcher or researchers from other LAMI regions, pragmatism in the choice of a publication channel seems essential. As noted above, it can sometimes be problematic to rely only on national or local journals, especially those with few resources, but the situation may be improving.

**CONCLUSIONS**

Addiction problems and their solutions have strong local, national and cultural characteristics. Addiction research needs to communicate within these milieus. It is important to preserve linguistic and cultural diversity in the communication of scientific findings. Addiction problems are an unfortunate fact of life in many countries, and are growing in Latin America, Africa and Asia. International communication is clearly necessary for the spread of information and can be personally rewarding, as indicated in Box 3.1. The research communities in LAMI countries need support and encouragement. In a world of increasing globalization, the English-speaking developed world can easily become isolated, not recognizing that it has much to learn from experience in other parts of the world.

Many international and English language journals are sympathetic towards publishing research from other countries and linguistic areas, as a recent survey of journal editors has shown (Edwards and Savva 2002a and b). The activities within international organizations such as ISAJE will hopefully increase the awareness of resource, language and cultural issues among journal editors and the research community in general, through fostering networks and striving to change the discriminative practices of the databases and indexing systems. This is the good news for researchers from less resourced countries and non-English language cultures.

The bad news is that the competition within research is hardening, strengthening existing hierarchies in the world of science and putting increasing demands on researchers from LAMI countries. Researchers from these countries face special challenges. General advice and rules of conduct are of limited value.
Hard work and a good dose of pragmatism are needed if you want to communicate your research to the appropriate audience and get scientific credit for it.

In this chapter we have pictured the unique challenges faced by addiction scientists who work outside the cultural and linguistic mainstream. It will take a great deal of skill, persistence and courage to get to the top of your field. But the rewards awaiting you at the summit may be that much greater, because you will have acquired the skill to read the map and orient yourself both in your country of origin and in the world that lies beyond.

**BOX 3.1 PROFESSOR MUSTAPHA SOUEIF ON 'BILINGUALISM' IN ADDICTION PUBLISHING**

The following quotation from an interview with Professor Mustapha Soueif, an Egyptian psychologist, cannabis researcher and internationally recognized addiction expert, shows how exciting it can be to confront the challenges of publishing in multiple languages and different cultures:

_I have to be 'bilingual' if I care for international readership and acknowledgement. And bilingualism is not an easy job. You cannot reduce it to a pendular movement from Arabic to English and vice versa. Rather, you switch off a whole way of thinking, feeling and mode of expression; and tune yourself to a totally different wave length. At the start of your career you find that this exercise is really tough, and overloaded with frustrating moments. But you accept it the way it is, because you chose to have it this way. Gradually, you attain higher levels of relevant skills; your troubles decrease, yet they never disappear._

_Another implication is that you have to accept a double load of responsibilities most of the time; I mean your local duties (the university, the private clinic, sharing in national meetings and writing in periodicals) and international requests (usually meetings and writings). Sometimes you have to turn down a request from one side or the other. But you have to be very careful if you intend to play the two roles with optimum smoothness. It takes creative effort to find points of convergence between both, and it is, therefore, highly rewarding._

_A third implication is that gradually your role is redefined for you. You are no more just a local scientist with international resonance. You are transformed into a culture-transmitter or a bridging factor. You are expected to behave as a medium for communication between two cultures. Whenever you cross the fence you should do something useful and interesting to the people on the other side. Of course what you carry with you should always be relevant to scientific endeavour. But it is sometimes peripheral. Yet it proves to be quite instrumental in promoting mutual understanding between investigators trying to transcend national and/or cultural barriers. This is all the more important when it comes to an area like research in drug abuse._

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