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THE DEFINITION OF CURRICULUM AREAS IN OCCUPATIONAL HEALTH PSYCHOLOGY

Jonathan Houdmont, Stavroula Leka and Carrie A. Bulger

CHAPTER OVERVIEW

Across the international educational landscape, numerous higher education institutions (HEIs) offer postgraduate programmes in occupational health psychology (OHP). These seek to empower the next generation of OHP practitioners with the knowledge and skills necessary to advance the understanding and prevention of workplace illness and injury, improve working life and promote healthy work through the application of psychological principles and practices.

Among the OHP curricula operated within these programmes there exists considerable variability in the topics addressed. This is due, *inter alia*, to the youthfulness of the discipline and the fact that the development of educational provision has been managed at the level of the HEI where it has remained undirected by external forces such as the discipline's representative bodies. Such variability makes it difficult to discern the key characteristics of a curriculum which is important for programme accreditation purposes, the professional development and regulation of practitioners and, ultimately, the long-term sustainability of the discipline.

This chapter has as its focus the imperative for and development of consensus surrounding OHP curriculum areas. It begins by examining the factors that are currently driving curriculum developments and explores some of the barriers to such. It then reviews the limited body of previous research that has attempted to discern key OHP curriculum areas. This provides a foundation upon which to describe a study conducted by the current authors that involved the elicitation of subject matter expert opinion from an international sample of academics involved in OHP-related teaching and research on the question of which topic areas might be considered important for inclusion within an OHP curriculum. The chapter closes by drawing conclusions on steps that could be taken by the discipline's representative bodies towards the consolidation and accreditation of a core curriculum.

THE IMPERATIVE FOR A CORE OHP CURRICULUM

The need to identify key topic areas that might be included in an OHP curriculum was recognised by the European Academy of Occupational Health Psychology (EA-OHP) in its strategy document on *The Promotion of Education in Occupational Health Psychology in Europe* (EA-OHP, 2002)¹. Despite the passing of six years since publication of the strategy document, limited progress has been made in respect to the definition of a core curriculum within and without Europe (Houdmont, Leka and Cox, 2007). The reason for this might reside in the challenges associated with three complex questions that Sinclair (2006) identified as being of central importance to the definition of an OHP curriculum. These concern (i) on what knowledge, skills and abilities should OHP education focus, (ii) how might OHP programmes address the needs and concerns of multiple stakeholder groups including employers, trade unions, practitioners and academics, and (iii) how might and to what extent should OHP integrate knowledge from other disciplines?

A number of imperatives now exist that together highlight the urgency for activities directed at the definition of a core OHP curriculum. Three issues in particular can be identified as responsible for driving current endeavours in this regard. These include (i) problems associated with variability in existing provision across HEIs, (ii) the role of the discipline's representative bodies in supporting, directing and regulating educational provision and, (iii) pan-European structural changes in the delivery of postgraduate education in psychology.

Variability in existing provision

Since the mid 1990s, several HEIs have introduced taught OHP programmes at Masters level (primarily in Europe) or within doctoral and post-doctoral training (mainly in the USA). Most, if not all, of the institutions that offer education and training in the discipline apply an OHP curriculum constructed on the basis of faculty members' understanding of the discipline and the key topics that it addresses. This approach to curriculum design has contributed to the generation of considerable variability in the topics covered within curricula across institutions.

Variability in curricula applied across institutions is not necessarily problematic. Indeed, variability may reflect factors that contribute to the creation of high quality programmes that are fit for purpose in particular

¹ A detailed account of the development, content and implications of the EA-OHP strategy document can be found in Houdmont, Leka & Cox (2007)

educational, social, economic and geographical contexts. Such factors may include, among other things, institutional research expertise and the needs of local employers as well as faculty members' understanding of OHP. Curriculum variability only becomes problematic when it exists to such a degree that it becomes difficult to discern the defining characteristics of OHP within a given curriculum.

At the time of writing, numerous HEIs across the globe are known to be undertaking scoping activities to assess the market potential for OHP programmes and some are on the verge of introducing their own programme. It is likely that the curriculum associated with each of these new programmes will be determined by faculty members on the basis of their understanding of the discipline or informed by existing curricula which, in turn, have been developed in the same way. In this climate of rapid expansion of provision it is essential that consensus is achieved on the topic areas that might be considered core to a curriculum; it would be a disservice to the discipline if ten years from now common ground across programmes could not be identified.

The role of the discipline's representative bodies in supporting, directing and regulating educational provision

The bodies that represent OHP on the international stage, EA-OHP (Europe), the Society for Occupational Health Psychology (SOHP: North America) and the International Coordinating Group for Occupational Health Psychology (ICG-OHP), have witnessed a growth in recent years in requests from HEIs for assistance with the design and implementation of OHP programmes. In numerous cases, advice has been elicited on (i) the topics that ought to be included within an OHP curriculum, (ii) issues of programme implementation, (iii) approaches to and avenues for marketing and, (iv) issues of programme accreditation.

At present, none of these bodies is equipped to offer formal programme accreditation or to provide a regulatory facility. This might be considered a matter for regret since programme accreditation offers an important indicator of the quality of a programme that would be of use to academics, prospective students and graduate employers. Accreditation that recognises an achieved standard of competency and adherence to a professional code of conduct would represent an important move towards the professional regulation of OHP practitioners. This in turn would likely serve to boost the discipline's profile among potential employers and clients. The development of consensus on the important and core elements of an OHP curriculum would therefore offer a basis for the possible introduction of programme accreditation criteria.

Although formal programme accreditation may be some way off, the institutions and individuals that contribute their time and energy to the operation of these representative bodies bring with them a wealth of experience in terms of the establishment of OHP programmes and a deep knowledge of the subject area. As such, they are well placed to offer guidance on the introduction of new OHP programmes. Consensus among these subject matter experts on the important and core content of an OHP curriculum would therefore help the discipline's representative bodies to administer consistent and useful advice that will contribute to the international expansion of OHP educational provision within a guiding framework.

Pan-European structural changes in the delivery of postgraduate education in psychology

In Europe, a particularly strong and immediate imperative for the definition of the important and core topics that might be included within an OHP curriculum has arisen out of the emergence of the European Certificate in Psychology (EuroPsy). Equivalent to doctoral-level training and awarded by the European Federation of Psychologists' Associations (EFPA), the EuroPsy certificate:

"is intended to provide a standard of academic education and professional training which informs clients, employers and colleagues that a psychologist can be considered to have gained the necessary competencies for the provision of psychological services. EuroPsy aims to set a common standard of competence in all the countries where it is issued. It promotes the free movement of psychologists across the countries of the European Union" (European Federation of Psychologists' Associations, 2006, p. 9).

The EuroPsy certificate is obtained upon completion of a 3 + 2 + 1 professional training model that comprises a first degree in psychology, a two-year full time Masters degree in a psychological specialty and a minimum of one year's full time supervised practice as a psychologist-practitioner in training. At the time of writing, the EuroPsy was undergoing a pilot roll-out in six European countries ahead of its Europe-wide launch. The introduction of the EuroPsy framework has a series of implications for the evolution of postgraduate OHP curricula, three of which are discussed here.

First, EuroPsy requires that the Masters portion of the training pathway consists of two years full time study. At present, few European HEIs offer this; most Masters degrees operate on a one-year full-time programme of

study (or equivalent). The introduction of a two-year full-time programme could bring benefits for OHP programmes: it would allow for a greater number of topic areas to be addressed within a course of study and an in-depth focus on particular topics. However, it will require the modification of existing one-year full-time programmes which will generate attendant resource implications. Furthermore, at most HEIs it is likely that the fee charged for a two-year full-time programme would, by necessity, be higher than that applied to one-year full-time programmes; it is uncertain how such a change might affect student applications.

Second, in its current incarnation, the EuroPsy certificate is available to individuals who have demonstrated professional competence in one of three areas: clinical and health psychology, work and organisational psychology or educational psychology. It remains unclear how Masters-level education in occupational health psychology might be encompassed into the scheme.

Third, EuroPsy requires that students undertake an organisational internship during their Masters programme of study as well as one year of supervised practice. Under EuroPsy provisions the internship usually takes place in the second year of Masters study to provide “an introductory professional field training in order to enable students to: integrate theoretical and practical knowledge, learn procedures related to psychological knowledge, start practicing under supervision, be able to reflect upon and discuss own and other people’s activities, begin working in a setting with professional colleagues” (European Federation of Psychologists’ Associations, 2006, p. 26). For both the internship and supervised practice element, as they relate to OHP, it is unclear what arrangements will be required in respect of (i) the nature and activities of the organisation(s) in which the internship and period of supervised practice takes place, (ii) the specific tasks that individuals undertake during these periods and (iii) the nature and scope of supervision as well as the qualifications of supervisors. Particularly in Europe, the notion of an internship represents a novel concept that will present a series of implications for Masters level curricula.

As the EuroPsy certificate is rolled out across the Member States of the European Union it is likely to have an increasingly important bearing on the structure and content of European Masters degrees in OHP. As such, it is important that the representative bodies for the discipline have at their disposal a consensus position on the important and core content of an OHP curriculum before entering into discussions with the European Federation of Psychologists’ Associations towards the integration of OHP into the EuroPsy framework.

ISSUES OF DEFINITION

Having established the imperative for the identification of important and core topics within an OHP curriculum, this section considers a potential challenge to the achievement of such: disagreement between continents on the definition of OHP. How OHP is defined is not merely a matter of semantics since the definitions adhered to by programme designers will determine, in part, the content of those programmes (Cox, Baldursson and Rial González, 2000). Thankfully, despite the absence of a shared heritage among the international community of OHP practitioners there exists broad agreement on the definition of the discipline. Nevertheless, there is evidence of divergence between the European and North American perspectives (Cox, 2000), specifically in respect of the subject areas that inform and together comprise OHP. Such divergence may have implications for the topic areas considered within a curriculum.

In Europe, the generally accepted definition of OHP is that used by the EA-OHP. This is based on the definition advanced by Cox et al. (2000), whereby OHP concerns “the contribution of applied psychology to occupational health” (p. 101). Cox et al.’s definition is termed an ‘interface’ definition since it locates OHP at the interface between occupational health and psychology. Cox and colleagues suggest that the areas of psychology that might be applied in addressing occupational health issues include health psychology, work and organisational psychology and social and environmental psychology (see Figure 1). The contribution of these areas of psychology implies that OHP practitioners have their focus on the psychological, social and organisational aspects of occupational health questions. Taken as a whole, this perspective allows for the following definition:

Occupational health psychology involves the contribution of the principles and practices of applied psychology to occupational health issues. It is the study of psychological, social and organisational aspects of the dynamic relationship between work and health.

This European perspective recognises that occupational health is a multidisciplinary area and that OHP practitioners offer a focused specialisation that they may usefully apply within multidisciplinary teams. In this way, it “requires that European occupational health psychologists are aware of and recognise the contributions that can be made by others, and can appreciate their intellectual positions, knowledge and practical skills” (Cox et al., 2000, p. 103).

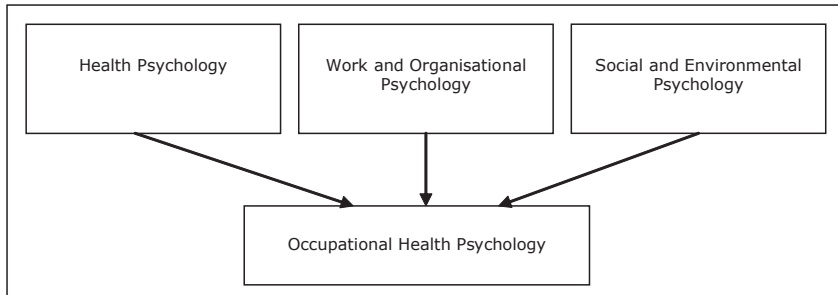


Figure 1: The foundations of European OHP

Some North American perspectives on OHP are entirely consistent with the European approach that conceptualises a discipline which draws on the procedures, practices and methodologies from various fields of applied psychology. The definition proposed by the US National Institute for Occupational Safety and Health (NIOSH), for example, states that OHP concerns “the application of psychology to improving the quality of work life, and to protecting and promoting the safety, health and well-being of workers”². However, other groups of researchers in North America have suggested that OHP might encompass psychological procedures, practices and methodologies alongside those from other occupational health sciences such as occupational and environmental health, organisational behaviour, human factors, sociology, industrial engineering, ergonomics and economics (Chen, Huang & DeArmond, 2005). This multidisciplinary perspective was established at the outset of the discipline’s existence in North America. In their seminal article in which the term ‘occupational health psychology’ was coined, Raymond, Wood & Patrick (1990) called for training in a discipline that “would integrate and synthesise insights, frameworks and knowledge from a diverse number of specialties, principally health psychology and occupational (public) health but also preventative medicine, occupational medicine, behavioural medicine, nursing, political science, sociology and business” (p. 1159). The North American perspective on the foundations of OHP is illustrated in Figure 2.

The multi-disciplinary nature of North American OHP recognises that a wide range of perspectives and disciplines have something to offer in regard to the prevention of workplace illness and injury and the promotion of health under the umbrella of OHP. Each vies for representation on an OHP curriculum, forcing programme designers to make difficult decisions on which to include and which to leave out.

²See: <http://www.cdc.gov/niosh/topics/stress/ohp/ohp.html#whatis>

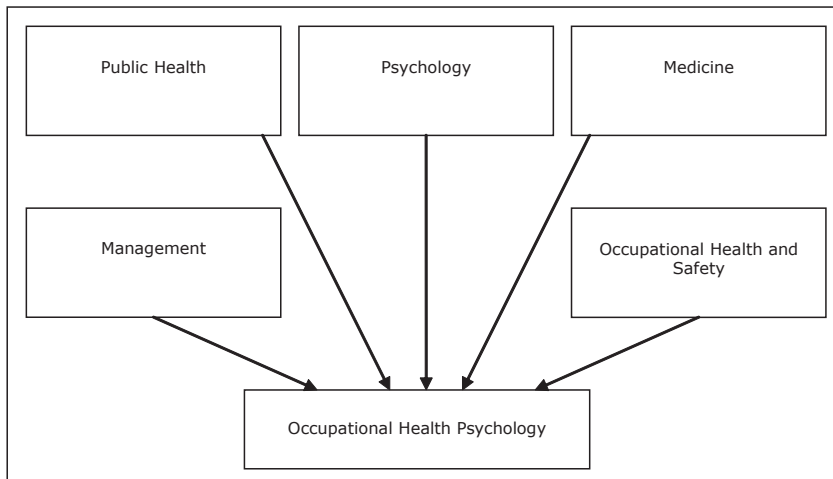


Figure 2: The foundations of North American OHP (From Adkins, 1999. Adapted with permission).

Despite differences in definition that can be identified between the North American and European approaches, OHP practitioners the world over would no doubt unanimously endorse the vision of OHP “to create healthy workplaces in which people may produce, serve, grow, and be valued” (Quick, Camara, Hurrell, Johnson, Piotrkowski, Sauter & Spielberger, 1997, p. 3). Likewise, most would agree with the high-level characteristics that Cox et al. (2000) have suggested appear to define the discipline. These include an acknowledgement that OHP is (i) an applied science, (ii) evidence driven, (iii) oriented towards problem solving, (iv) multidisciplinary, (v) participatory – actively involving students, workers and managers, (vi) focussed on intervention, with an emphasis on primary prevention and, (vii) operational within a legal framework. Nevertheless, the contrast between the European and North American perspectives remains more than a mere matter of wordplay and it remains a possibility that the differing traditions out of which OHP has emerged could present a challenge to the development of international consensus on the important and core topics that might be contained within a curriculum.

RESEARCH ON THE DEFINITION OF OHP CURRICULUM AREAS

The content of most, if not all, extant OHP curricula has largely been informed by faculty members’ knowledge and understanding of the

discipline. In many cases, programme designers have turned to the published academic literature for guidance on topic areas that ought to be included. Perhaps as a result of this approach, a degree of consistency can be identified across programmes. For example, a review of the content of eleven doctoral-level OHP programmes at North American HEIs revealed that six topic areas appeared consistently (Barnes-Farrell, 2006). These included: (i) survey (overview) of occupational safety and health, (ii) job stress theory, (iii) organisational risk factors for occupational stress, injury and illness, (iv) physical and psychological health implications of stressful work, (v) organisational interventions for the reduction of work-related stress and, (vi) research methods and practices in public/occupational health and epidemiology. This list is broadly consistent with the findings of a recent review of topics addressed in papers published in the *Journal of Occupational Health Psychology* over an eleven year period which revealed seven broad topic areas: (i) stress, (ii) burnout, (iii) work-family issues, (iv) aggression, violence and harassment, (v) safety, (vi) employment issues and, (vii) health issues (Macik-Frey, Quick & Nelson, 2007).

Analyses such as that of Macik-Frey and colleagues offer an indication of the topics with which researchers have commonly engaged. However, beyond the intrinsic interest or importance of a topic there exists a host of factors that drive research foci and which encourage a focus on particular topics at different points in time across social and economic contexts. As such, it might be considered that key themes evident in the published research provide an indication of some important topics that ought to be included in an educational curriculum; they do not, however, provide guidance on the topics that are fundamental to the discipline nor do they offer a comprehensive account of OHP topics. A curriculum that seeks to reflect the key themes in published OHP research may also be problematic in that it is unlikely to fully address practitioner concerns and interests. OHP is an applied discipline and it is therefore important that curricula do not merely reflect the topics that academics study but encompass the issues faced by its practitioners in their work within organisations. To this end, programme designers on both sides of the Atlantic Ocean have sought to identify the key areas of concern to practitioners and employers.

In the USA, this line of research was initiated with a survey of 1,100 human resource managers, public health professionals and experts in disciplines allied to OHP (Schneider, Camara, Tetrick & Sternberg, 1999). The survey, commissioned by the American Psychological Association (APA) and the U.S. National Institute for Occupational Safety and Health (NIOSH), revealed a need for OHP education and training but stopped short of delineating a curriculum. Schneider and colleagues' study laid the groundwork for the development of OHP curricula in the USA in

the late 1990s, including the programme operated as a minor within doctoral-level training at the University of Houston. Keen to ensure that the Houston curriculum met the needs of local employers, the programme directors surveyed 141 human resource managers and 27 trade union representatives on their organisation's concern about various OHP-related topics (Tetrick & Ellis, 2002). Using a 5-point scale, respondents were required to indicate the degree of organisational concern associated with thirty one OHP-related topics derived from the authors' knowledge of the OHP literature and human resource practices in the USA. Results revealed that the top ten concerns of human resource managers included: accidents, attendance, changing technology, education and training, employee commitment, physical well-being, psychological well-being, safety, teamwork and workplace injuries. Overall, trade union representatives generated a similar list of concerns but with an emphasis on issues of concern to individual employees such as job security, occupational stress, retirement and workload.

Subsequently, a survey of US-based health and safety practitioners (n=67) and OHP academics/researchers (n=9), conducted at Portland State University, sought to assess both the types of organisations that OHP practitioners work within and the nature of health and safety issues they are charged with addressing (Sinclair, Hammer, Oeldorf Hirsch & Brubaker, 2006). Taking the sample as a whole, the top ten OHP-related issues identified as being most important included: accidents, safety climate, personal protective equipment, compliance with US Occupational Safety and Health Administration regulations, fire safety, repetitive strain injuries, ergonomics, traumatic injuries, workers' compensation and noise/hearing protection. Due to the nature of the sample the results were biased towards the perceptions of practitioners, many of whom worked in safety-related occupations. Thus, the results offer a tentative indication of the topics that might be considered important to an OHP curriculum from the viewpoint of a particular constituency.

Fullagar & Hatfield (2005) conducted an analysis of curriculum areas addressed in US doctoral-level OHP training programmes alongside a knowledge, skills and abilities analysis for jobs related to OHP (e.g., industrial/organizational psychologist, occupational safety and health specialist and occupational safety engineer). Across the twelve curricula examined, only one topic area was taught at each HEI: an introduction to the discipline of OHP. Work-related stress was taught at seven HEIs, making it the second most common topic area. Fullagar & Hatfield's study was important because the results permitted, for the first time, the tentative advancement of an OHP practitioner job description. This conceptualised the practitioner's job as being to:

“Review, evaluate, and analyze work environments and design programs and procedures to promote worker health and reduce occupational stress caused by psychological, organizational and social factors. Apply principles of psychology to occupational health problems. Activities may include policy planning; employee screening, training and development; and organizational development and analysis. May work with management to reorganize the work setting to improve worker health. May be employed in the public or private sector.”

In Europe, there have been similar attempts to design curricula around practitioner needs; most notably, at the University of Nottingham which introduced the world’s first OHP Masters programme in 1996. Since that time the number of students pursuing the programme has grown year on year and in 2005 an e-learning variant was introduced as an alternative to full-time campus-based study. Despite the success of the programme, alumni feedback revealed that graduates sometimes felt insecure at job interviews in the months following programme completion owing to a lack of real-life work experience within organisations. Alumni asserted that work experience within the Masters programme would help to engender greater depth of knowledge in respect of the occupational health needs of employers and thus better equip graduates for entering the professional world of work. In response, the programme team initiated two activities. Proposals were advanced on the introduction of an internship within the Masters programme and a study was conducted to identify (i) emerging and future occupational health priorities and (ii) occupational health (and safety) practitioner training needs in the British context (Leka, Khan & Griffiths, 2007).

The study consisted of (i) a Delphi interview-based investigation that involved national-level occupational safety and health experts (n=30) and (ii) a questionnaire that was administered to occupational health and safety practitioners (n=1,679). Results of the Delphi study showed that subject matter experts’ top five emerging and future workplace health priorities included (i) common mental health problems (anxiety, depression and stress), (ii) sickness absence (monitoring, management, return to work, rehabilitation, presenteeism), (iii) musculoskeletal disorders, (iv) engaging and advising small and medium sized enterprises, and (v) the evaluation of workplace health interventions. Survey results revealed that practitioners identified eight priority areas in terms of emerging and future workplace health issues: (i) common mental health problems, (ii) the use of government guidance on the management of work-related stress (the British Health and Safety Executive’s Management Standards), (iii) the identification of emerging risks, (iv) planning for major events (e.g., pandemics), (v) work-related driving, (vi) work-life balance, (vii) immigrant and migrant workers, and (viii) non-standard workplaces (e.g., flexiwork and tele-work). In terms of training needs, survey respondents highlighted seven

key knowledge areas: (i) persuasion, attitude and behaviour change, (ii) risk perception and communication, (iii) change management, (iv) new legislation and guidance, (v) organizational culture, (vi) ethics and codes of conduct, and (vii) the bio-psycho-social model of health. These findings provided useful guidance on topics that might be covered within the Nottingham curriculum with a view towards preparing graduates for professional practice.

The studies described here share the intention of canvassing stakeholder opinion on topic areas that might be considered important and core to an OHP curriculum. In light of this aim, it is perhaps surprising that the review highlights only one attempt to elicit views from the OHP academic community (Sinclair et al., 2006): an important constituency whose views bring considerable weight to bear in the design and implementation of curricula in HEIs. Sinclair and colleagues' study provided a useful preliminary indication of the views of the academic OHP community; however, care must be taken in generalising results generated from a restricted sample of nine academics all of whom worked in the US higher education system. Thus, the review highlights the need for further research on the definition of an OHP curriculum involving this key constituency whose voice has hitherto been neglected in the debate.

This chapter now turns to an exploratory study that sought to address this shortcoming in the research base. The study involves the elicitation of subject matter expert opinion from an international sample of OHP academics for the purpose of defining important and core topics within OHP curriculum.

THE CURRENT STUDY

In recognition of the imperative for research into the definition of OHP curriculum areas as a pre-requisite for the expansion and consolidation of educational provision, the EA-OHP Education Forum and the SOHP Education and Training Committee together designed and administered the current study. The collaboration represented an important landmark in co-operation between the European and North American representative bodies for the discipline. It is anticipated that the study will signal the beginning of an ongoing set of collaborative activities on the advancement of research, education and professional practice in OHP.

The study had the following aims:

1. To identify the topic areas perceived by OHP academics to be (i) important and (ii) core to an educational curriculum in the discipline
2. To assess whether differences exist between North American and European OHP academics in respect of the topics perceived to be (i) important and (ii) core to an educational curriculum in the discipline

METHOD

Participants

Delegates at the Work, Stress and Health 2008 conference in Washington, DC, USA, comprised the sample of participants in the current study. The event was the latest in the conference series jointly organised by the APA, NIOSH and, more recently, SOHP. The conference was targeted at OHP researchers, educators and practitioners as well as professionals from the allied disciplines.

Data was collected by means of a questionnaire that was included in the information pack issued to each delegate. Delegates were asked to return completed surveys to a box at the conference registration desk or, alternatively, to mail surveys to the lead author. Twenty eight completed and usable surveys were returned.

Table 1 reveals that respondents were drawn from ten countries. The United Kingdom and the United States of America were the most strongly represented countries in numeric terms; these two countries generated four and fifteen responses respectively. Respondents had 14 years mean OHP-related work experience.

Table 1: Respondents' country of residence

<i>Country of residence</i>	<i>Frequency</i>
Germany	1
Ireland	1
Italy	1
Netherlands	2
Norway	1
Russia	1
Spain	1
Taiwan	1
United Kingdom	4
United States of America	15

The questionnaire

The questionnaire presented a list of sixty eight OHP-related topic areas. The topics were selected by the authors on the basis of a review of issues addressed in the two leading international OHP journals: *Work and Stress* and the *Journal of Occupational Health Psychology* over a ten-year period from 1997 to 2007. Respondents were required to indicate the importance of each topic to an educational OHP curriculum on a five point scale that ranged from [1] 'not important' to [5] 'extremely important'. The topics

within the list were not entirely independent, e.g., 'work design and health' and 'job characteristics and health'. However, such topics were presented separately to capture potentially different perspectives among respondents. Space was provided for respondents to add topics not covered in the list. Data was also collected on respondents' job type, job title, number of years of experience in OHP and country of residence.

An additional set of questions focused on competencies required for professional practice in OHP. Results will be reported in a separate forthcoming publication.

RESULTS

Core topic areas

Topic areas that achieved a mean score of 3 or more were defined as *important* to an OHP educational curriculum. Table 2 reveals that on the basis of responses given by the entire sample of participants, twenty one topics met this criterion. Six participants made suggestions for additional topic areas; however, each topic was advanced by only one participant and no overlap was discernable. This allowed the authors to conclude that the sixty eight OHP-related topics listed in the questionnaire offered a near-comprehensive overview of topics that might be included under the OHP umbrella.

A cut-off of 3.5 was applied for the identification of topics that might be considered essential, or *core*, to a curriculum. Six topic areas met this criterion (indicated by an asterisk in Table 2): (i) interventions to promote health, (ii) organisational research methods, (iii) psychosocial work environment, (iv) stress theory, (v) stress interventions and (vi) work design and health.

Differences between European and North American experts

Data provided by participants working in Russia and Taiwan ($n=2$) were excluded for purposes of drawing comparisons between the perspectives of academics working in Europe and North America on the question of which topics might be important and core to a curriculum.

Table 3 reveals that thirty-one topic areas were identified by the European sample ($n=11$) as important to an OHP curriculum. Among these, eight topic areas were identified as core. These included: (i) absence, (ii) combating

Table 2: Topic areas identified as important to an OHP educational curriculum (entire sample)

<i>Topic area</i>	<i>Mean score</i>
Accidents	3.1
Ageing	3.1
Attitude and behaviour change	3.1
Bullying and harassment	3.0
Burnout	3.3
Combating psychosocial risks	3.4
Coping	3.1
Design of the work environment	3.4
Health promotion	3.3
Interventions to promote health	3.7*
Mental health	3.1
New ways of working	3.2
Occupational health hazards	3.4
Organisational research methods	3.6*
Psychosocial work environment	3.6*
Relationships at work	3.0
Stress theory	3.7*
Stress interventions	3.7*
Work-life balance	3.4
Work design and health	3.5*
Work schedules	3.1

psychosocial risks, (iii) design of the work environment, (iv) interventions to promote health, (v) organisational research methods, (vi) psychosocial work environment, (vii) stress theory and (viii) stress interventions.

Twenty three topic areas were identified by the North American sample ($n = 15$) as important to an OHP curriculum. Among these, six topic areas were identified as core to an educational curriculum. These included: (i) interventions to promote health, (ii) organisational research methods, (iii) psychosocial work environment, (iv) stress theory, (v) stress interventions and, (vi) work design and health.

Sixteen topic areas were identified by both North American and European participants as important to an OHP curriculum. These are illustrated in Table 4. Among these, five topics were identified by both groups as core to an OHP curriculum: (i) interventions to promote health, (ii) organisational research methods, (iii) psychosocial work environment, (iv) stress theory and, (v) stress interventions.

Table 3: Topic areas identified as important to an OHP educational curriculum (European and North American samples)

<i>Topic area</i>	<i>Mean score (North American sample) (n = 15)</i>	<i>Topic area</i>	<i>Mean score (European sample) (n = 11)</i>
Accidents	3.2	Absence	3.6*
Burnout	3.3	Accidents	3.1
Combating psychosocial risks	3.1	Ageing	3.2
Coping	3.0	Attitude and behaviour change	3.4
Design of the work environment	3.1	Bullying and harassment	3.2
Development and history of the discipline of OHP	3.2	Burnout	3.3
Ergonomic factors	3	Combating psychosocial risks	3.8*
Health promotion	3.1	Coping	3.4
Interventions to promote health	3.5*	Design of the work environment	3.7*
Mental health	3.0	Employee emotions	3.1
Musculoskeletal disorders	3.0	Health promotion	3.4
New ways of working	3.0	High risk jobs and populations	3.0
Occupational health hazards	3.4	Interventions to promote health	3.9*
Organisational research methods	3.7*	Job insecurity	3.2
Psychosocial work environment	3.5*	Leadership	3.1
Safety climate	3.4	Management competencies	3.0
Stress theory	3.7*	Mental health	3.3
Stress interventions	3.5*	New ways of working	3.4
Training	3.0	Occupational health hazards	3.3
Wellness programmes	3.0	Organisational change	3.4

Table 3: Contd.

<i>Topic area</i>	<i>Mean score (North American sample) (n = 15)</i>	<i>Topic area</i>	<i>Mean score (European sample) (n = 11)</i>
Work-life balance	3.3	Organisational culture	3.1
Work design and health	3.7*	Organisational research methods	3.7*
Work schedules	3.3	Professional competencies	3.0
		Psychosocial work environment	3.8*
		Relationships at work	3.2
		Return to work	3.1
		Risk management	3.2
		Stress theory	3.7*
		Stress interventions	3.9*
		Work-life balance	3.3
		Work design and health	3.3

Table 4: Topic areas identified as important and core to an OHP educational curriculum by European and North American participants (topics identified as core by both groups are identified by an asterisk)

<i>Topic area</i>	<i>Mean score (North American sample) (n = 15)</i>	<i>Topic area</i>	<i>Mean score (European sample) (n = 11)</i>
Accidents	3.2	Accidents	3.1
Burnout	3.3	Burnout	3.3
Combating psychosocial risks	3.1	Combating psychosocial risks	3.8
Coping	3.0	Coping	3.4
Design of the work environment	3.1	Design of the work environment	3.7
Health promotion	3.1	Health promotion	3.4
Interventions to promote health	3.5*	Interventions to promote health	3.9*

Table 4: Contd.

<i>Topic area</i>	<i>Mean score (North American sample) (n = 15)</i>	<i>Topic area</i>	<i>Mean score (European sample) (n = 11)</i>
Mental health	3.0	Mental health	3.3
New ways of working	3.0	New ways of working	3.4
Occupational health hazards	3.4	Occupational health hazards	3.3
Organisational research methods	3.7*	Organisational research methods	3.7*
Psychosocial work environment	3.5*	Psychosocial work environment	3.8*
Stress theory	3.7*	Stress theory	3.7*
Stress interventions	3.5*	Stress interventions	3.9*
Work-life balance	3.3	Work-life balance	3.3
Work design and health	3.7	Work design and health	3.3

DISCUSSION

The exploratory study described here set out to investigate (i) which topic areas might be perceived by OHP academics as important and core to an educational curriculum in the discipline and (ii) whether differences exist between North American and European OHP academics in respect of the above.

The study revealed that it was possible to identify broad consensus among a restricted sample of OHP academics on the topic areas that might be addressed within a curriculum. North American participants identified twenty three topic areas and European academics identified thirty one topics as important to a curriculum. Agreement between the two groups could be found on the importance of sixteen topic areas. Among these, five were held by both groups to be core to a curriculum: (i) interventions to promote health, (ii) organizational research methods, (iii) psychosocial work environment, (iv) stress theory and, (v) stress interventions. In addition to these five areas, North American academics identified work-design and health as an additional core topic. European academics identified an additional three core topics: absence, combating psychosocial risks and design of the work environment. Considerable overlap between these

areas can be discerned. It is notable that these findings are not inconsistent with the previously described high level characteristics identified by Cox et al. (2000) as central to defining the discipline.

Differences between North American and European perspectives

European and North American differences in the approach taken to the definition of OHP were discussed earlier in this chapter in the context of possible implications for the selection of topics that might be included in OHP curricula. It was shown that whereas the European perspective conceptualises a discipline that tackles occupational health issues by drawing on principles and practices from various fields of applied psychology, the North American perspective conceptualises OHP in a multidisciplinary fashion whereby knowledge and skills are incorporated from a range of disciplines including, inter alia, psychology, public health, medicine, management and occupational safety and health. It was noted that this difference in perspective might present a barrier to the achievement of international consensus among academics on the topic areas that might be included within an OHP curriculum. The findings of the exploratory study presented here suggest that the contrasting heritage of North American and European OHP may not present a barrier to the achievement of international consensus among academics on the topic areas that are considered (i) important and (ii) core to an OHP curriculum. This conclusion is drawn on the basis of a restricted sample of only twenty eight participants; verification is required through replication of the study with a considerably larger international sample of academics. However, it should be noted that the entire population of OHP academics is limited owing to the youthfulness of the discipline. As such, it may be difficult to secure a sample of a size sufficient to permit inferential statistical analysis of the data.

Curriculum flexibility

It is important to appreciate that the study described here did not set out to identify a list of topic areas that together might be deemed to constitute a comprehensive OHP curriculum. To attempt such would be misguided because, in reality, no single curriculum can prepare an OHP practitioner for every conceivable situation that he or she may face in his or her work. Rather, the objective was to identify those areas that an international sample of OHP academics might consider central to a curriculum while acknowledging that the range of topics taught around this core will be determined by a variety of factors including, inter alia, the needs of the local labour force and faculty members' research expertise.

A flexible approach to curriculum design is advantageous in that it allows for the continual evolution of curricula in response to developments in the challenges to occupational health presented by the changing workforce, changing context of work and changing nature of work. As Adkins (1999) has pointed out,

“To meet the evolving psychosocial needs of the working community, occupational health psychologists need to adapt and grow with organisational change. Continuing to refine and develop occupational health psychology principles will enable practitioners to confront the challenge of maximizing both workforce and organisational health” (p. 136).

Where flexibility in curriculum design is allied with an emphasis on continual professional development and skills training in (i) the identification of new challenges to occupational health and (ii) the adaptation of existing knowledge and skills to tackle ever-changing challenges, it might be suggested that a generation of OHP practitioners will emerge that is equipped to combat contemporary challenges to occupational health. OHP professionals in this mould would also recognise the limits of their own knowledge and skills and be cognizant of situations when it might be appropriate and necessary to draw in the services of other occupational health professionals.

Limitations

A number of shortcomings can be identified in this study. Largely due to the fact that the survey was administered at a conference in the USA, the majority of survey respondents worked in North America. As such, the findings might over-represent the opinions of North American OHP academics at the expense of the European perspective. In addition, consistent with much previous research on the definition of curriculum areas in OHP, the study involved a numerically small sample that precluded the use of inferential statistical techniques for analysis of the data.

Two anecdotal points may be made in respect of the issue of sample size. First, it might be considered ironic that the study population – academics - who spend much of their time designing and administering surveys, were reluctant to complete and return this particular survey. The low response rate does not appear to be exclusive to this study; it is consistent with that achieved by others which have sought to elicit the opinions of researchers who study work-related psychosocial issues (European Agency for Safety and Health at Work, 2007). It is unclear whether the low completion and return rate reflected distrust of survey-based studies among OHP academics,

apathy, fundamental concerns about the research question or other factors. On the basis of informal conversations with colleagues in the OHP academic community, it is the authors' contention that the poor response rate may reflect a lack of recognition of the importance of the research question among the population. Owing to the youthful nature of the discipline, most academics with a professional interest in OHP have come to the discipline already in possession of qualifications and expertise in fields related to but distinct from OHP. As such, the careers of these people are likely to be unaffected by the evolution and professionalisation of OHP. It might be speculated that the growing cohort of OHP graduates in the early stages of their professional OHP careers might have a stronger vested interest in the research question considered here and, by extension, might be more responsive to calls for participation in studies that hold the potential to pave the way for developments in OHP programme accreditation and professional recognition, regulation and support structures.

Second, it waits to be seen whether the combination of a small sample and descriptive statistical analysis of the data is likely to present a barrier to the future publication of this study in a peer-reviewed journal. Among the studies reviewed earlier in this chapter, of those that involved the administration of surveys for the purpose of identifying an OHP curriculum, only one has reached the pages of a peer-reviewed journal (Schneider et al., 1999). That study involved a sample in excess of 1,000 participants, in contrast to most of the remaining studies which used considerably smaller samples. If issues of sample size can explain the paucity of peer-reviewed published research in this area then it might be speculated that attempts to secure publication of the current study in a journal might be fraught with difficulty. That would be a matter of regret for a host of reasons, not least because it could reveal a failure on the part of reviewers to acknowledge that the population of OHP academics remains relatively small and that, as such, survey-based studies that have their focus on this population will inevitably involve small samples. It is important that the dissemination of research on the development of an OHP curriculum is not hampered by the reviewing criteria of academic journals. This situation highlights one of the important roles of the EA-OHP's book series *Occupational Health Psychology: European Perspectives on Research, Education and Practice*: to provide a forum for the communication of research on topics of importance to the development of education and training in OHP where that research might not be suitable for publication via the traditional journal-based route. In addition, by virtue of being distributed free of charge to all delegates at EA-OHP conferences and available for purchase online, the book series has the added benefit of reaching its target market (OHP researchers, educators, students and practitioners) in a way that journal articles cannot always achieve.

In light of these shortcomings the study presented here must be considered exploratory and its results receptive to validation through replication using larger samples. The authors intend to address both these shortcomings by conducting a repeated administration of the survey at the EA-OHP 2008 conference in Valencia.

Future research

As has been described, the definition of the important and core topic areas within an OHP curriculum is of importance in various ways to the development of education and professional practice in OHP. However, while the definition of curriculum areas is important, to develop a curriculum that truly prepares graduates for professional practice it is important that such research activities are augmented with those directed at the delineation of core competencies required in professional practice. The results of such research would have important implications for the content of OHP curricula and the style of learning activities adopted. Perhaps surprisingly, researchers have largely neglected this topic. An exception is that of Adkins (1999) who noted that practice should be: a) grounded in theory, b) informed by a business plan capable of predicting financial and psychological benefits, c) focused at the organisational 'systems' level that recognises the dynamic and complex transaction between people and their environment rather than focussing at the individual level of analysis and, d) open to transcending traditional boundaries and using knowledge and skills derived from a variety of domains. In view of the paucity of research on professional competencies in OHP, the current authors intend to extend the collaborative research between EA-OHP and SOHP initiated by the current study with further investigations into the development of a matrix of core competencies for professional practice.

As mentioned above, the current study represents the beginning of an era of collaborative research between EA-OHP and SOHP. Such activities are to be welcomed because this youthful discipline is unlikely to mature and develop long-term sustainability in the absence of collaboration between its representative bodies. However, collaborative ventures such as that presented here also serve to highlight the contrasting educational structures that operate in Europe and North America. As such, research that may be of immediate importance to one body may offer less short-term utility to the other. This can be seen, for example, in informal conversations surrounding the current study that revealed the immediate imperative to define a core curriculum in the European context where such may usefully contribute to the pan-European debate on the professionalisation of psychologists in respect of the EuroPsy qualification. The expansion of EuroPsy is likely to have an increasingly important bearing on the structure and content of

European Masters degrees. In the USA the picture is quite different; OHP is rarely, if ever, taught at Masters level and, as such, fewer imperatives may exist in the short term for the delineation of a core curriculum. It is inevitable that research will not always have equal pertinence across constituencies. It is a sign of the strength of international relationships between representative bodies that initiatives such as that reported in this chapter should not prevent collaborative endeavours.

CONCLUSIONS

For reasons outlined herein, it is the authors' contention that education and training in OHP must be standardised to some degree if professional practice in the discipline is to sustain in the long term. Part of the standardisation process involves the definition of the central features of an OHP curriculum. This chapter has demonstrated that a host of imperatives exists for the development of consensus surrounding the topic areas that might be considered important to an educational OHP curriculum. Previous studies that have attempted to elicit the views of stakeholders (primarily occupational safety and health practitioners) to this end have been reviewed. The review highlighted the paucity of research involving an important constituency whose views bring considerable weight to bear in the design and implementation of curricula in HEIs: OHP academics. In response to this shortcoming in the knowledge base, the current authors conducted an exploratory study, described in detail here for the first time, which sought to investigate the possibility of achieving consensus among an international sample of OHP academics. Consensus was found on the importance of sixteen topic areas. Among these, five were held by both groups to be core to a curriculum. It was shown that the contrasting heritage of North American and European OHP may not present a barrier to the achievement of international consensus among academics on the topic areas that are considered (i) important and (ii) core to an OHP curriculum. The need for further research involving larger samples is highlighted as a vital next step towards the delineation of the central elements of an OHP curriculum.

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