

PRIMARY HEALTH PROFESSIONAL EDUCATION: CURRENT MODELS AND BARRIERS TO PARTICIPATION

Final Report

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Glossary

ACE	American Council on Education
ACPE	Accreditation Council for Pharmacy Education (US)
ADGP	Australian Divisions of General Practice
ADRAC	Adverse Drug Reactions Advisory Committee
AFPC	Association of Faculties of Pharmacy of Canada
APA	Australian Physiotherapists Association
APhA	American Pharmacists Association
ASHP	American Society of Health-System Pharmacists
CCCEP	Canadian Council on Continuing Education in Pharmacy
CE	Continuing Education
CFP	Canadian Foundation for Pharmacy
CME	Continuing Medical Education
COPRA	Council of Pharmacy Registering Authorities
CPD	Continuing Professional Development
CPE	Continuing Pharmacy Education
CPhA	Canadian Pharmacists Association
CPPE	Centre for Pharmacy Postgraduate Education (England)
CPRSC	Community Pharmacy Research Support Centre
CSHP	Canadian Society of Hospital Pharmacists
DAA	Dietitians Association of Australia
DATIS	Drugs Advisory & Therapeutic Information Service
EBM	Evidence-Based Medicine
FIP	International Pharmaceutical Federation (Federation Internationale Pharmaceutique)
GP	General Practitioner
HMR	Home Medication Review
MCQ	Multiple-Choice Question

NABP	National Association of Boards of Pharmacy (US)
NICPPET	Northern Ireland Centre for Postgraduate Pharmaceutical Education and Training
NPS	National Prescribing Services
OAA	Optometrists Association of Australia
OSCE	Objective Structured Clinical Examination
PAC	Pharmacy Australia Congress
PEAC	Pharmacy Education Accreditation Committee (Aus)
PSA	The Pharmaceutical Society of Australia
QUM	Quality Use of Medicines
RACGP	The Royal Australian College of General Practitioners
SBO	State Based Organisation
SCERH	The Standing Committee on Ethics in Research Involving Humans(Monash University)
SCPPE	Scottish Centre for Post Qualification Pharmaceutical Education
SHPA	The Society of Hospital Pharmacists of Australia
WCPPE	Welsh Centre for Post-Graduate Pharmaceutical Education

Executive Summary

Introduction

Continuing Education (CE) for health professionals is a life-long process which endeavours to update or enhance knowledge, refine skills, reinforce professional values and support the delivery of professional practice. It plays a pivotal role in the maintenance of professional competence and in the past decade participation in CE has become an expectation of, rather than an option for, practising health professionals. The time and resources required from organisers and participants in CE and the need to ensure practical outcomes justifies a review of current models being used for its delivery. This entails an understanding of the purpose of CE, a consideration of how it should be delivered, and the role played by assessment in achieving the goals of CE.

Aim of Report

The overall aim of this study is to identify important considerations and subsequently make recommendations for the development of an ideal model(s) of CE for community pharmacy.

Goals of Report

1. Define CE and its role.
2. Identify and assess current CE delivery models.
3. Examine the current status of continuing education and registration requirements for pharmacists.
4. Identify barriers to participation in CE.
5. Identify components and considerations for developing a model of CE delivery.

Methods

The following methods were employed for this project:

1. Literature review

A number of electronic databases were systematically searched in order to profile current trends and concepts in CE. CE structures currently in use were investigated by directly accessing the websites of appropriate associations.

2. Stakeholder interviews

A series of semi-structured interviews were completed with stakeholders from CE delivery organisations across a range of professions including pharmacy.

3. Community pharmacy focus groups

A series of focus group teleconferences were held with groups of pharmacists thought to have distinct CE needs: experienced pharmacists (qualified more than 5 years), recently-qualified pharmacists (5 years or less), rural/remote pharmacists, and pharmacists with specialist training needs (such as Home Medication Reviews). These focus groups asked about participants' experiences and opinions in relation to many aspects of CE including its delivery and its assessment.

Review Findings

Defining continuing education and its role

CE was defined by the USA Council on Credentialing in Pharmacy as '...organised learning experiences and activities in which pharmacists engage after they have completed entry-level academic education and training. These experiences are designed to promote the continuous development of the skills, attitudes and knowledge needed to maintain proficiency, provide quality service or products, respond to patient needs, and keep abreast of change.' The role of CE must, however, be seen in the context of its ultimate objective- to improve public health outcomes.

If CE is to be of benefit, pharmacists must be able to incorporate what they have learnt into their everyday practice so that individual patients and the health system may benefit. This requires CE content that is relevant to a pharmacist's practice, and also for pharmacists to have the appropriate skills and attitudes to apply new information. Achieving this entails a more complex process than CE known as continuing professional development (CPD). CPD incorporates rather than replaces CE, but places more emphasis on the resultant quality improvement in practice. It extends beyond the boundaries of CE by having the participant outline how their systematically assessed educational needs are to be addressed, and how this process will benefit their everyday practice.

Current continuing education delivery models

This review looked at CE delivery models used by community pharmacists, as well as those for several other health professions. Of the seven organisations examined, it would appear that government funding provided for the Australian Divisions of General Practice (ADGP) has resulted in a professional structure- from national to Divisional level- with a much greater capacity to plan and deliver CE to all its members than any other profession.

The government-funded National Prescribing Service (NPS) and the Drug and Therapeutic Information Service (DATIS) provide extensive access to resources distinctly relating to drug therapy for doctors and pharmacists. This is achieved by using various modes of delivery, so that areas not served through personal contact with the services can still benefit from email alerts and mail-outs such as *Australian Prescriber*. These resources demonstrate a focus on both information delivery *and* practice change.

The remaining organisations - the Pharmaceutical Society of Australia (PSA), the Optometrists Association of Australia (OAA), the Australian Physiotherapists Association (APA), and the Dietitians Association of Australia (DAA) - are all charged with multiple roles including the delivery of CE for their individual professions. These organisations are almost entirely financed through membership fees. The PSA appears exceptional among these organisations in having a mandate and structure in place to ensure that as many pharmacists as possible can access appropriate levels of CE. It was conceded by all interviewees that rural and remote professionals are disadvantaged in terms of access to CE.

The peer pharmacy systems examined (US, Canada, New Zealand, England, Scotland, Wales and Northern Ireland) differed from their Australian equivalents by having either an accreditation system in place for CE providers, or by actually having government-funded CE which is developed in association with regulatory authorities.

The current status of continuing education and registration requirements for pharmacists

At the time of writing, there are no mandatory education requirements for pharmacists to maintain registration anywhere in Australia, although some States require pharmacists to sign a statutory declaration indicating their competence to practice. The educational requirements to be completed

in order to permit continued practice vary substantially between States and Territories. Efforts are currently being made by licensing authorities to harmonise assessment standards.

The current situation in pharmacy mirrors that of other professions as described by interviewees. Individual professional organisations may or may not have recommendations regarding competency standards, but in reality have no real authority to enforce recommendations. The exception to this is general practice, where vocational remuneration is dependent on achieving a certain level of CE attendance. Internationally, pharmacy systems are increasingly requiring proof of competency for practice licences.

Barriers to participation in continuing education

Stakeholders from all three organisations involved in the delivery of CE to pharmacists identified poor attendance rates by pharmacists at CE events. Part of this relates to access- rural and remote practitioners were singled out as being at a disadvantage. More subtle issues such as affordability and lack of broadband internet availability in rural and remote areas were also identified. Equally, most pharmacists have substantial and unavoidable commitments both within their job and within their personal lives.

Focus groups also expressed a belief that a certain proportion of pharmacists did not participate through lack of motivation: for example, the lack of mandatory requirement to do so (and consequent lack of prioritisation), general apathy, resistance to the notion of CE and weariness of the job.

Discussion

CE is an integral part of contemporary professional practice and the benefits accrued from participation can be influenced at all stages- planning, delivery and assessment. Current models of CE delivery to community pharmacists often focus on delivery of clinical information and therapeutic updates; this is an essential component of CE for pharmacists, but other important goals of CE such as improved practice skills are often perceived as intuitive dividends of this process and are given insufficient attention. It is important to realise that few if any of the eight areas of practice competency outlined for pharmacists by the PSA can be effectively developed solely on the basis of knowledge transfer. Previous studies reinforce this idea that effective changes in practice require an increased use of practice-centred CE rather than didactic approaches to CE.

There does not appear to be any strategy from CE stakeholders detailing how CE should be coordinated and promoted to community pharmacists. The ability of pharmacists to access a more diverse range of CE activities will become increasingly important in the face of new roles being developed for community pharmacists. Educational needs will also change with the increasingly multi-disciplinary nature of practice and a more complex practitioner-patient relationship in primary care. Pharmacists must also develop the skills to make independent evaluations about the quality and validity of information because of exponential growth of unregulated and broadly accessible information on the internet and elsewhere.

The method by which CE is delivered will dictate which pharmacists can reasonably undertake it. This review identified substantial barriers to attendance at formal CE events. There is no 'one size fits all' solution to CE provision and so providers need to demonstrate flexibility in the ways that their service can be accessed.

The need for mandatory assessment of CE stems from a need to ensure that *all* practising pharmacists are maintaining and developing their competencies and practice skills. Assessment of CE/CPD activities needs to be carried out in partnership with pharmacists, and there may also be a place for positive incentives rather than a punitive approach. In terms of how to assess CE, the common practice of simply measuring participation rates (contact hours) is a poor proxy indicator of competence and runs the risk of encouraging CPD points-seeking rather than a thorough consideration of personal professional development needs.

Recommendations

Based on the findings of this review, we have identified the following key issues as meriting consideration in the development of an ideal model of CE for Australian community pharmacists:

Planning

1. Develop a partnership-based strategy for CE, and a funded consortium of all stakeholders to ensure its implementation.
2. Develop a coherent mechanism for the multi-organisational delivery of CE to pharmacists.
3. Develop a systematic strategy for assessing the education needs of community pharmacists.

4. Pharmacy registering authorities should develop guidelines for parties seeking to deliver CE.
5. A clear policy should be developed on the funding of CE activities so that it is affordable to all pharmacists.

Delivery

1. Delivery of CE should be multi-modal and thereby cater for differences in preferred learning styles, as well as differences in the ability to access certain types of CE.
2. Introduce innovations that will help to overcome real barriers to attendance at CPD. For example, provision of childcare at events, or travel subsidies for rural pharmacists.
3. CE should be delivered in a manner that considers the principles of successful adult learning, including problem-based learning.
4. Models and approaches to CE should address the defined educational needs of community pharmacists.

Assessment

1. The CE undertaken by pharmacists should be assessed in a manner that promotes professional development as the end goal and not the amassing of CPD points.
2. There should be a mandatory requirement for practising pharmacists to undertake the minimum amount of CE required for maintenance of competency. This will only be justifiable however, if an adequate amount of appropriate CE is clearly available.
3. The objectives and standards for assessment of CE undertaken by pharmacists should be defined by licensing/registration bodies.
4. CE providers should undertake periodic self-assessment.
5. Positive incentives should be used where possible to encourage uptake of CE.

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PRIMARY HEALTH PROFESSIONAL EDUCATION: CURRENT MODELS AND BARRIERS TO PARTICIPATION

Overview of Report

A key objective of the Research & Development Grants Program in the Third Community Pharmacy Agreement between the Pharmacy Guild of Australia and the Commonwealth Department of Health and Ageing, was to “develop and support research expertise and capacity in community pharmacy”. Recognising the positive outcomes it would have, the aim of this program was to improve the quality and range of pharmacy services in Australia. The Community Pharmacy Research Support Centre (CPRSC) was funded as part of the program and, in collaboration with various universities and education institutes, has an objective of generating reports on issues of interest to the profession and practice of pharmacy.

Continuing Education (CE) was identified as a priority area of interest to the profession of pharmacy. It is the vehicle by which practice competence is maintained and new information is delivered to pharmacists, and is therefore an essential component of any strategy which seeks to develop new pharmacy services, or to enhance the quality of existing services. This places an onus on the profession to take up the challenge of delivering the most appropriate CE possible to all practising pharmacists. This review examines current models of primary health professional education (including pharmacy), the regulatory framework in which they are delivered and undertaken, and barriers to the planning of, and participation in, CE. By understanding these issues and their implications, we are able to provide a framework by which appropriate models for CE delivery to community pharmacists may be developed.

These considerations have formed the basis for the aims and goals of the project outlined below.

Aim of Report

The overall aim of this study is to identify important considerations and subsequently make recommendations for the development of an ideal model(s) of CE for community pharmacy.

Goals of Report

1. Define CE and its role.
2. Identify and assess current CE delivery models.
3. Examine the current status of CE and registration requirements for pharmacists.
4. Identify barriers to participation in CE.
5. Identify components and considerations for developing a model of CE delivery.

Methods

A number of approaches were used to ensure that the review findings encompassed a variety of different perspectives relating to the topic of interest: the theory and evidence driving current concepts in CE delivery, the perspective of those who deal with the practicalities of CE delivery in Australia today, and importantly, the perspective of community pharmacists who are expected to undertake these activities.

This project received ethical approval from both the Flinders University Social and Behavioural Research Ethics Committee, and the Monash University Standing Committee on Ethics in Research Involving Humans (SCERH).

Literature Search and Review

A literature search was carried out on six electronic databases: EBM Reviews (included CDSR, ACP Journal Club, DARE & CCTR), CINAHL, MEDLINE, PsycINFO, ERIC and Google Scholar. Broad search terms with Boolean methods were used. Search terms included education, continuing education, professional development, continuing professional development, continuing professional education, lifelong learning with subheadings: pharmacists, pharmacy, physicians, doctors, general practitioners, physiotherapists, nutritionists, dietitians, healthcare professionals, healthcare

providers, occupational therapists. Searches of the databases were limited to literature from the past 10 years, from January 1995 and to January 2005, and the English language. Identification of all papers was undertaken by one researcher to ensure reliability.

The literature review examined models used for pharmacy as well as issues affecting planning, delivery and participation in CE activities. The CE structures in place for pharmacists in a number of other countries were also reviewed by directly accessing the websites of CE organisations in those countries.

Stakeholder Consultation

A series of semi-structured teleconferences, focus groups and individual interviews were held with community pharmacists, and individuals involved in CE provision throughout Australia.

Focus group teleconferences with community pharmacists

A purposive sample of community pharmacists was invited to participate in semi-structured focus group teleconferences (Appendix 1). These participants were identified through publicly available sources such as the Consultant Pharmacy website, telephone directories, and by inviting volunteers or nominees through Auspharmlist and academic networks. Pharmacists were grouped into the following four categories with others who were likely to have similar education requirements and similar issues affecting their ability to participate in CE.

The four focus groups were:

- Pharmacists who are reasonably experienced and have been qualified for more than 5 years;
- Pharmacists who are relatively less experienced and have been qualified for 5 years or less;
- Pharmacists with specialist training needs such as home medication reviews;
- Pharmacists practising in rural or remote areas.

The following selection criteria applied:

- Currently registered and practising community pharmacist in an Australian state or territory
- Currently not directly involved in the delivery of CE to other pharmacists
- Currently fell into one of the categories listed above.

The teleconferences were chaired by a professional focus group facilitator, and the interview questions (Appendix 2) were based on the research questions posed by this project. Discussions were audio-taped by Telstra Conferlink® directly over the phone line to allow for an accurate record. These audio-tapes were transcribed by the facilitator and subsequently analysed by the researchers.

Interviews with CE providers

Individuals involved in the delivery or regulation of CE at an organisational level, both from pharmacy and other health professions, were identified from publicly available organisational information (usually web-based) and approached to discuss their experiences of, and opinions on, the delivery of CE (Appendix 3), particularly:

- their experience with various modes of education delivery
- reaccreditation CE requirements for their profession (if any)
- how issues relating to access to CE for certain members were addressed
- how different educational needs of different members were met
- their views on future directions for CE delivery
- how their own model of CE delivery was developed
- barriers to participation in CE.

All of the major Australian pharmacy CE providers were invited to have a representative participate in an interview; for other health professions, a short list was devised of medical, nursing and allied health organisations where a substantial proportion of members were involved in primary care. Written permission was received from the professional organisation concerned before a particular person within the organisation was approached for participation. Interviews were conducted with all stakeholders who responded and were able to participate within the project's timeframe.

The interview questions (Appendix 4) were based on the research questions posed by this project. The interviews were conducted over the telephone by a researcher, and subsequently analysed by the same researcher.

1. Introduction: Current Knowledge and Concepts in Continuing Education

In the past two decades, pharmacy education in Australia has undergone dramatic changes. Increasingly, pharmacy academics and pharmacy education providers are aware of and understand the rights and expectations of the general community for quality education of its pharmacists. Emphasis on clinical knowledge and competency is becoming more and more central to the teaching of the practice of pharmacy. The concept and framework of continuing professional development is gradually taking hold as an approach to lifelong learning for pharmacists, aided by the growing structure and size of the continuing professional education industry in Australia and other countries. (2)

Professional education has in essence two principle phases: a formal degree-based training phase followed by a post-graduate CE phase. (3) (4)

The **under-graduate phase** is a finite process that aims to build the foundation for professional standards by instilling the theory and developing the technical knowledge, skills and values needed to competently carry out the professional requirements of a particular discipline. (3, 5) Like other healthcare professionals, pharmacists are deemed competent and ready to provide professional service to patients and the general community after they successfully completed their course and satisfied pre-registration requirements.(6) Hence, competency assessment is an important and essential component in an under-graduate curriculum, and is traditionally well-documented.

The **post-graduate CE phase**, on the other hand, is a life-long process that aims to update or enhance existing knowledge, refine existing skills, and reinforce existing values to enable and support the delivery of professional practice. (3, 5) As with other healthcare professions, the need for the competency of pharmacists to be sustained and developed beyond the entry-to-practice level is increasingly recognised and therefore expected by the general community. These post-registration competencies are attained through CE in addition to working in actual practices. Maintenance of competence is fundamental to a pharmacist's continuing professional development. (7) While competency assessment in this phase is similarly regarded as important and essential, the literature review did not uncover evidence to suggest that it is widely practiced.

In Australia, pharmacy academic institutions have traditionally focused on the completion of an education curriculum to deliver degree-based training, and the role they play in post-graduate CE is often limited. (3) Over the years, professional associations and organisations, which may be public, private or not-for-profit, have stepped in to fill this gap and have provided much in diversity and quantity of CE. (3, 5) Many commercial pharmaceutical companies have also actively sought involvement in the CE of pharmacists, whether through its sponsorship or its provision. The ability of such non-academic bodies to gauge educational needs, to assess the content of education provision and, most importantly, to remain unbiased has not been fully explored. The main foci of this review will be to identify important principles and priorities underpinning continuing delivery and to outline the current state of CE delivery and uptake in Australia. This will allow an informed discussion about whether all pharmacists are currently accessing appropriate and sufficient CE and steps that might need to be taken for the future delivery of professional education to pharmacists.

Understanding Continuing Education

In 1989, the American Society of Health-System Pharmacists (ASHP) issued a statement on CE. Quoting Edmund D Pellegrino, the statement says, 'Next to integrity, competence is the first and most fundamental moral responsibility of all health professions...Each of our professions must insist that competence will be reinforced through the years of practice. After the degree is conferred, CE is society's only real guarantee of the optimal quality of health care.' (8) In 2000, the Council on Credentialing in Pharmacy in the United States (US) defined CE as '...organised learning experiences and activities in which pharmacists engage after they have completed entry-level academic education and training. These experiences are designed to promote the continuous development of the skills, attitudes and knowledge needed to maintain proficiency, provide quality service or products, respond to patient needs, and keep abreast of change.' (9) In 2003, the US Accreditation Council for Pharmacy Education (ACPE) further emphasized that '...continuing education should promote problem-solving and critical thinking and be applicable to the practice of pharmacy' and gave definitions to the responsibilities of CE providers. (10-12)

These statements serve both to define the meaning of CE and underline its importance. In order to comment on the organisation, delivery or assessment of CE, it is equally important to have an understanding of its fundamental functions in terms of maintaining and developing a pharmacist's role. This necessitates equal attention being given to the concept of continuing professional development (CPD). CPD is a holistic approach to lifelong learning. It encompasses rather than replaces CE, and provides pharmacists with a framework which incorporates the application of the

knowledge gained through CE. Quality-assured CE is an integral part of a pharmacist's participation and action plan in the CPD process. (4)

Continuing professional development (CPD) is defined variously as self-directed, practitioner-centred and practice-based learning. It is outcome-focused and is designed to meet specific goals, with the ultimate goal of improving public health outcomes.(13) It also emphasizes and encourages the development of a meaningful approach to learning.

The International Pharmaceutical Federation (FIP) Council adopted a Statement of Professional Standards on CPD at its World Congress in France in 2002. Its introductory sentence was as follows: 'Maintaining competence throughout a career, during which new and challenging professional responsibilities will be encountered, is a fundamental ethical requirement for all health professionals.' (4)

The concept of CPD was defined as 'the responsibility of individual pharmacists for systematic maintenance, development and broadening of knowledge, skills and attitudes, to ensure continuing competence as a professional, throughout their careers'. (4) In other words, CPD essentially involves a cyclical process of continuous quality improvement that includes self-appraisal or identification of learning needs, creation of a personal learning plan, participation and implementation of that plan, and evaluation of the effectiveness of the plan and educational interventions in relation to their practice. This process enables pharmacists to maintain and enhance their competence in both current duties and future professional developments. In recent times, portfolio documentation has been used as a tool for that process. It has been proposed that portfolio development could also be adapted to play an integral part of the CPD process, that is, to have the process centred on it. (12)

Why examine continuing education now?

Since the early 1990's, CE, whilst not mandatory, is increasingly seen as a quality indicator in the provision of pharmacy services. Its role in lifelong learning for pharmacists became increasingly scrutinised and, more importantly, expected by consumers, accreditation bodies, registration boards and indeed pharmacists themselves. When the concept of CPD began to emerge to more holistically describe lifelong learning, it became clear that neither CPD nor CE alone can ensure professional competence. (12) The evaluation of the concept and the role (if any) of CE becomes

the next logical step. Three fundamental issues must be negotiated when evaluating CE and these are outlined below: (2)

1. What is the purpose of continuing education?

One assumption is that CE provides post-graduate training and knowledge. If training and knowledge improve competency (what you *can* do), it follows then that improved competence is applied to effect practice and outcome changes (what you *do*). This is known as the Miller's triangle or pyramid, which assumes that competence predicts performance. (14) The relationship between skills/knowledge, competence and performance is however, often confounded by other factors such as time pressure, day of the week, mood of the person, etc. (15-17) Evidence regarding the effectiveness of CE in providing the substance to effect change to practice is almost non-existent. (6)

2. How do you assess outcomes from continuing education?

Another common assumption is that pharmacists attend CE as part of their quality improvement exercise.(12) Whether this is entirely true, or whether pharmacists are passively pursuing credits to meet CPD requirements should be investigated. (3) There is currently no data on the reasons pharmacists attend or do not attend CE in Australia.

The implication that attendance at CE results in increased competence, and increased competence predicts improved performance needs to be challenged. If competence is a precursor of performance, the rate at which this sequence of events occurs in reality has not been investigated.

What is **professional competency**? Professional competency is a set of behaviours that encompasses knowledge, abilities, skills and personal attributes that are critical to the successful delivery of professional services. (1) There are a number of competency assessment methods that vary in degrees of precision, complexity, and time and effort to administer. Direct assessment methods such as written assignments/examinations, oral interviews, objective structured clinical examinations (OSCEs) and practical examinations that test clinical knowledge are relatively simple and easy administer but often involve a significant time commitment. These measure what pharmacists can do in controlled representations of professional practice. Their value as a meaningful indicator of changed or improved professional practice requires debate. Assessment of CE ideally needs to move towards performance-based assessment ie. assessments in actual professional practice, such as supervisor observation. (6) Even though pharmacy professional bodies recognise that competence must be inferred from practice performance, there are many

issues yet to be addressed before adequate assessment processes of this type can be put in place.

(1) Practice performance should be the ultimate outcome measure for assessing CE.

Another outcome measure for CE is its economic impact. This is traditionally difficult, but not impossible, to demonstrate. (18) That discussion is beyond the scope of this report.

3. Who provides continuing education?

Collaboration between organisations and institutions to provide CE is gradually emerging. In order to have organised and coordinated CE systems, and to move CE towards being economically viable, this collaboration is increasingly necessary and important. (2) Setting standards for CE provision across the board is paramount to successful collaboration.

Components and considerations for developing a model of continuing education delivery

For education to be valued, potential recipients must believe that it will result in changed outcome, improved confidence and increased satisfaction. The key to successful adult learning is governed by eight principles. Fundamentally, adults are motivated by learning that: (19)

- is perceived as relevant
- is based on, and builds on, their previous experiences
- is participatory and actively involves them
- is focused on problems
- is designed so that they can take responsibility for their own learning
- can be immediately applied in practice
- Involves cycles of action and reflection
- Is based on mutual trust and respect.

While the application of these principles to undergraduate teaching is well-established, the practice of post-graduate CE delivery is far less organised and established. Three areas of consideration have been identified as important in the organisation of CE.

1. Content of continuing education

The Pharmaceutical Society of Australia (PSA) recommends minimal competency standards in eight functional areas: (1)

- Practise pharmacy in a professional and ethical manner
- Manage work issues and interpersonal relationships in pharmacy practice
- Promote and contribute to optimal use of medicines
- Dispense medicines
- Prepare pharmaceutical products
- Provide primary health care
- Provide medicines and health information and education
- Apply organisational skills in the practice of pharmacy.

The focus of CE must evolve with the rapid changes in knowledge and practice (3) and revolve around the above competency requirements. To be relevant and effective, CE must be firmly grounded in existing knowledge and practical experience, and the content has to aim at bridging educational and learning gaps or needs of the recipients. It has to aim to promote the development of a knowledge and experience base that guides future behaviour. This is particularly true in the practice of medicine and pharmacy. Relevance of contents ultimately sets the scene for successful CE intervention.

The identification of educational needs of pharmacists is an important component in the process of planning and developing CE. (20) Various methods have been used to identify educational needs, ranging from asking people directly what they perceived their needs to be, to extensive and complex assessments in actual practice settings. (20)

In CE, typical needs assessment have focused on 'perceived needs' or self-identified needs or self-reported skill gaps, usually asked through a survey or questionnaire. Studies have shown that this form of assessment inadequately identifies actual needs, and that there is inadvertently a discrepancy between a person's perceived and actual educational needs. Before identification and assessment of knowledge-based needs could begin, there needs to be a realisation or judgement that present knowledge or capabilities are inadequate. This has as much to do with the lack-of-ability-to-know as it does with an attitude issue. Hence, assessing knowledge-based needs is best achieved using objective structured assessment processes. (2, 20) This are also referred to as 'prescribed needs' or 'assessed needs'.

Similarly, the effectiveness of past and existing CE in meeting the 'needs' of pharmacists in Australia has also seldom been assessed. The views of pharmacists' pre and post CE intervention have never been comprehensively sought in Australia. A search of the literature, unfortunately, reveals that this is not dissimilar across other healthcare professionals. (2, 19, 21)

2. Funding of continuing education

Accessibility of CE is, unfortunately, closely linked to affordability. The challenge remains for CE providers and pharmacy regulators to ensure CE is accessible and affordable to all pharmacists. Whilst most CE activities for pharmacists are included partly or entirely by their professional bodies' membership fees, external sponsorship is still necessary. Providers such as pharmaceutical companies may be viewed with increasing cynicism from within and outside the healthcare professions as they have both the interests of the professions as well as those of their shareholders to consider. Concerns over the independence of CE and pharmaceutical research are real and justifiable but there is some value in industry support and provision of CE in a well structured and regulated environment.

An important structural aspect of CE delivery is to provide guidelines and set boundaries through regulation for all providers, including the pharmaceutical industry to support CE to pharmacists without impinging on its integrity. Furthermore, professionals who develop critical skills in evaluating information from all providers may act as a filter to ensure quality practice with application of new knowledge.

3. Delivery of continuing education

Traditionally, CE deliveries were predominantly didactic and non-interactive. The most common examples of these are single-instructor lectures and large-group seminars. (3) These modes of delivery concentrate mainly on updating pharmacists about the newest development in medicines, usually offered by a pluralistic group of providers who do not work together in any coordinated fashion. (2) Even though there is ample evidence to indicate that these conventional modes of delivery do not address the needs of professionals adequately, (2) (13) they are still the most common methods of CE delivery because they are convenient and inexpensive to run.

There is increasing evidence to support the use of CE strategies that involve interactive delivery because they enhance the possibility of changing practitioner's attitude and behaviour, thereby

achieving practice change and improving patient outcomes. (2, 3) Changing professional behaviour requires interactive learning experiences that are ongoing and that build a reflective framework. (22) There is a move nowadays to deliver CE using a variety of tools and methods well beyond the traditional didactic lectures and seminars. (23) Alternative delivery models include role-playing, group discussion, case presentations, interactive workshops, reminders, audit feedback, individualised tutorials, peer group sessions and other 'hands-on' techniques. (3, 24)

There is a growing trend in the direction of multidisciplinary CE delivery, for instance, interactive educational sessions or meetings that involve different healthcare professionals. There is evidence to support this mode of delivery achieves beyond mere education delivery. (25) (26) It promotes understanding and rapport amongst different professions, thereby facilitates collaborative decision-making.

Difficulty of access to CE may be overcome with media such as telecommunications, videoconferencing, computer-based learning and web-based applications. (27) Teaching and learning via the internet has grown steadily and is rapidly evolving into a versatile, accessible and widely accessed informational and educational tool. (23) Distance learning via the internet is fast becoming a mainstay strategy rather than an option. (5), While there is little doubt that web-based learning will continue to impact on CE delivery, its effectiveness in achieving change, unlike interactive processes, still requires scrutiny.

Another mode of delivery that has only recently been contemplated for trialling in pharmacists is the concept of academic detailing. This form of CE delivery is not new. It has been used for some time with success with physicians. While a Cochrane review provides evidence to support that this may be of benefit for physicians (28) there is little information regarding pharmacists. In 2004, the Quality Use of Medicines and Pharmacy Research Centre in South Australia conducted a smoking cessation program 'SUPPORTU' that looked at improving the quality, effectiveness, and sustained program delivery through community pharmacies.(29) A total of 64 pharmacists and 114 pharmacy assistants participated in this program. A pharmacist in that project visited community pharmacists to undertake academic detailing over a 3-month period to keep them up-to-date on the program as well as smoking cessation therapy. In total, 160 visits were made, and feedback from both the pharmacist who carried out the CE and the pharmacists who received it were positive. This program demonstrated that academic detailing is entirely possible and beneficial for pharmacists. (29)

2. The Current Status of Continuing Education Regulation and Delivery

This section outlines the regulation of CE and the major CE providers in a number of countries with similar pharmacy systems, as well as for each of the States and Territories in Australia. It also examines the CE structure provided within Australia across a range of other health disciplines.

Continuing education regulation and delivery for pharmacy in other countries

United States of America (USA)

The USA is divided into 50 independently-governed States with separate legislation covering the recognition of pharmacy qualifications and registration for each state board. The registration requirements are different for each of these state boards.

The Accreditation Council for Pharmacy Education (ACPE) was established in 1932 for the accreditation of pre-service pharmacy education. Its scope of activity was broadened in 1975 to include accreditation of CE providers. It is currently the national agency for the accreditation of pharmacy degree programs and providers of CE in the United States of America.

The ACPE is an autonomous and independent agency that has its board of directors derived from the American Association of Colleges of Pharmacy (AACCP), the American Pharmacists Association (APhA), the National Association of Boards of Pharmacy (NABP) and the American Council on Education (ACE). It does not accredit individual CE programs, but instead accredits CE providers, that are mainly US-based. ACPE-accreditation has been sought for international meetings and conference symposia in other countries, for example, at the annual conference of the International Pharmaceutical Federation (FIP).(30)

Canada

There are eleven provincial and territorial pharmacy regulatory or licensing bodies in Canada. Similar to the United States, requirements that pharmacists must meet in order to renew their licences vary across Canada. Aside from the payment of fees, pharmacists may be required to complete a specific amount of CE or other requirement prior to renewing their licenses to practice. In April 2000, the Mutual Recognition Agreement for the Profession of Pharmacy was signed by nine of these authorities that agreed to adopt harmonized initial licensing requirements. (31)

The Canadian Council on Continuing Education in Pharmacy (CCCEP) is the national coordinating and accrediting body for CE in Canada. Its members are appointed by the provincial pharmacy regulatory organisations and also include representatives from several national pharmacy organisations such as the Canadian Foundation for Pharmacy (CFP), the Association of Faculties of Pharmacy of Canada (AFPC), the Canadian Society of Hospital Pharmacists (CSHP) and the Canadian Pharmacists Association (CPhA). (32)

United Kingdom

In October 2002, CPD was introduced to the United Kingdom as a framework for the maintenance of professional competence of pharmacists by the Royal Pharmaceutical Society of Great Britain. It has been on a rolling program to replace the earlier requirement for all pharmacists to complete 30 hours of CE each year. Mandatory requirement for pharmacists to adopt CPD is currently being introduced in the United Kingdom, and all practising pharmacists will be expected to comply with the requirements of the mandatory CPD framework.

Although the formal requirement for participation in CE is currently being replaced, it is expected that pharmacists in the United Kingdom will continue to participate in CE activities and to include CE in their CPD to ensure that their professional knowledge remains up to date. (33)

England

The Centre for Pharmacy Postgraduate Education (CPPE), located in the School of Pharmaceutical Sciences in the University of Manchester, is funded by the Department of Health. It was established in 1991 by the National Health Scheme Executive. It provides CE and CPD opportunities for

community pharmacists in England, offering both clinical and professional subjects, elearning, distance learning CE programmes, and the CPPE workshops.(34)

Wales

The Welsh Centre for Post-Graduate Pharmaceutical Education (WCPPE), located in the Welsh School of Pharmacy in Cardiff University, is funded by the Welsh Assembly. It provides CE and CPD opportunities for pharmacists and their support staff in Wales, offering e-learning, distance learning CE programmes, flexible and part-time learning programmes, and access to learning resources.(34)

Scotland

The Scottish Centre for Post Qualification Pharmaceutical Education (SCPPE), located at the University of Strathclyde in Glasgow, is funded by the Scottish Executive Health Department. It is the national centre for pharmacist CE providing education and training programmes for hospital and community pharmacists working within the National Health Scheme in Scotland, offering face-to-face courses, distance learning, video conferencing, open learning opportunities and specially commissioned courses .(34)

Northern Ireland

The Northern Ireland Centre for Postgraduate Pharmaceutical Education and Training (NICPPET), located at the Queen's University of Belfast, provides CE and CPD activities to pharmacists and other healthcare professions in Northern Ireland. It offers workshops, distance learning packages, flexible courses, e-learning, books and videos for loan, and regular publication of a newsletter.(34)

New Zealand

CPD requirements are mandatory for registration in New Zealand. Registration and re-registration requirements are set by the Pharmacy Council of NZ, whilst the Pharmaceutical Society of New Zealand (Incorporated) is the main provider of professional development, support, education, training and career development for pharmacists in New Zealand. It also runs the continuing competence assessment programme (ENHANCE) for pharmacists in New Zealand. (35)

Continuing Education regulation and delivery for pharmacy in Australia

This section examines the regulation of CE for pharmacists in each Australian state and territory and outlines the major CE delivery organisations.

Regulatory Requirements for Pharmacy in Australia

CE requirements are currently not mandatory in any Australian state or territory. A search of the literature and websites of state licensing bodies, and contact with state licensing bodies and professional associations revealed little in the way of structured accreditation processes for the provision of CE in Australia. Table 1 gives a summary of the findings of the eight pharmacy registration boards in Australia.

None of the pharmacy boards have a formal accreditation process for CE providers. South Australia appears to be the only board with guidelines for CE providers. There are, however, recommendations or guidelines for pharmacists to assess CE activities in all states and territories. Until recently, pharmacists were relatively free to determine the scope and content of their CE curricula. Whilst these may promote increased awareness of professional obligations in some pharmacists, the risk remains that other pharmacists may select a CE focus that does not produce the diversity or depths of knowledge necessary to practice in an evidence-based manner in this rapidly evolving discipline. (3)

Of the eight pharmacy boards contacted, it would seem that only those in NSW, South Australia (36), Tasmania and Victoria request from pharmacists, as part of registration and licensure requirements, records of their self-assessed and self-reported CE activities. In NSW, Victoria and Tasmania, these are only requests, they are not mandatory. In Tasmania and Northern Territory, pharmacists are required to sign a statutory declaration that they are competent to practice. In South Australia and Western Australia, while CE/CPD requirements are not mandatory for registration, they are mandatory for licensure of practice. Only the South Australian and Tasmanian boards seem to periodically audit pharmacists' data.

Table 1 Summary of CE/CPD requirements for Australian states and territories (information current on 13 May 2005)

The Pharmacy Board of the (ACT) Australian Capital Territory	<p>Currently no mandatory CE requirements.</p> <p>Pharmacists are encouraged to self-assess the CE they received at time of re-registration.</p> <p>Note: Legislation is in a state of revision at the moment. Formal CE/CPD requirements are tabled for introduction.</p>
The Pharmacy Board of New South Wales	<p>Currently no mandatory CE requirements.</p> <p>Pharmacists are recommended to undertake 20 hours of CE, but this is not audited or enforced.</p>
Northern Territory Health Licensing Authority (for ten separate boards: doctors, nurses, physiotherapists, pharmacists, etc.)	<p>Currently no pre-registration or CE requirements. Pharmacists are only required to sign a statutory declaration that they are competent to practise.</p> <p>The board is considering applying a 10% audit on CE in the next few years.</p>
The Pharmacists Board of Queensland	<p>Currently no CPD requirements.</p> <p>“Recency of practice” likely to be introduced as a registration requirement in the next 18 months. Pharmacists will be required then to declare that they have practised in the preceding 3-5 years. CPD requirements may also be introduced then.</p>
The Pharmacy Board of South Australia	<p>Currently no mandatory CE requirements for registration. But CE/CPD requirements are mandatory to obtain a license to practice.</p> <p>An audit is performed every 5 years to ensure pharmacists undertake appropriate CE. Guidelines are set up for pharmacists to evaluate CE received, and also for CE providers to evaluate CE provided.</p>
The Pharmacy Board of Tasmania	<p>For the purpose of registration, currently requires pharmacists to present a signed statutory declaration that they are competent.</p> <p>Pharmacists are given guidelines to self assess learning needs and to submit their own CE portfolio. Rotational competency audit (10%) has been in place since 2004.</p>
The Pharmacy Board of Victoria	<p>Currently no mandatory CE requirements for registration.</p> <p>At the time of re-registration, pharmacists are recommended and encouraged to self-report the CE they have received. 20 CE points per year are recommended, of which at least 10 should be 'contact' education.</p>
The Pharmaceutical Council of Western Australia	<p>Currently no mandatory CE requirements for registration. But CE/CPD requirements are mandatory to obtain a practising certificate.</p>

The South Australian Board uses the ENRICH program which is a 4-stage process to provide a guide for its pharmacists to evaluate their learning needs, to formulate a plan to meet those needs,

then implementation of that plan and finally to evaluate and modify that plan if necessary. The program differentiates between non-assessed journal reading and other CPD activities. South Australian Board sets a minimum of 20 ENRICH credits per calendar year. (37-42)

Pharmacy boards in ACT, Northern Territory (12, 43) Queensland and Western Australia do not have any records of CPD stipulations on their pharmacists. Northern Territorian Pharmacy Board adopted new legislation in May 2004 that requires pharmacists to reapply for a practice licence every year. Pharmacists are required to sign statutory declarations that they have met practice requirements eg. 'recency of practise' in preceding 5 years, met competency standards, do not have mental illness and are fit-to-practice. (44) Previously, pharmacists in that territory were issued lifetime practice licences. The Pharmacy Board in Tasmania requires a similar declaration from their pharmacists at registration and re-registration. It requires pharmacists to declare that they participate in CPD activities and started a rotational competency in 2004. Guidelines are given to Tasmanian pharmacists to self-assess their own learning needs and submit their own CE portfolio. (45) This personal audit is completed in conjunction with the competency Standards for Pharmacists issued by the Pharmaceutical Society of Australia. (45) The Pharmacy Board of Queensland may be introducing legislation in the next 18 months to require a pharmacist's declaration of 'recency of practice' in the preceding 3-5 years as a re-registration requirement.

The Pharmacy Education Accreditation Committee (PEAC), recently formed under the umbrella of the Council of Pharmacy Registering Authorities (COPRA), aims to start the process of accreditation of CE and to develop national consistency in the provision of CE. This development is in anticipation of formalising mandatory CE requirements for pharmacy registration in Australia.

Meanwhile, in the absence of guidelines and standards from most of the boards, the Pharmaceutical Society of Australia (PSA) and other professional pharmacist bodies have developed and implemented their own guidelines and standards, and making accreditation available to other independent continuing education providers, albeit normally only for the benefits of their own members.

Continuing education providers for pharmacists in Australia

The major CE provider to community pharmacists is the Pharmaceutical Society of Australia. Although the Society of Hospital Pharmacists of Australia predominantly caters for hospital

pharmacists, there seems to be a trend in recent times to include community pharmacists in some of their CE activities. Furthermore, there is also a trend with providers from other professional and multidisciplinary bodies contributing and playing a role in the CE of practising pharmacists.

The Pharmaceutical Society of Australia

The Pharmaceutical Society of Australia (PSA) is the main CE provider to pharmacists in Australia. The mandate of PSA is to ensure pharmacists have access to its CE, in as wide a range and as many means as necessary, no matter where they live or work. Whilst the Society maintains a national database with all its members' records, including their education attendance, (5) this data is incomplete and difficult to interpret. An anecdotal report stated that attendance at PSA-conducted CE is dropping, with about 40% of its members attending irregularly and another 40% who do not attend at all.

Until recently, PSA did not seem to have a systematic approach to the planning of all its educational delivery needs. CE sessions were organised on the basis of who and what was available. Educational needs of pharmacists are generally not the primary considerations of PSA, and there is a lack of planning and preparation. Even though PSA recommends that pharmacists should acquire 40 CE points per year, this is a recommendation and it does not have jurisdiction over pharmacists who are non-PSA members. (5) This, coupled with an absence of compulsion by the Society on its members to attend CE, may explain the falling attendance by its members to its CE sessions.

In January 2004, PSA Victoria announced that it would change the way CE activities are delivered in 2005 by moving the focus from "a 'talk at you' approach and 'lecture-style' sessions to a 'talk with you' approach along with the use of electronic technology, panels of experts and question and answer style seminars'.(5) The Society also has an accreditation process for non-PSA CE providers. (46)

The Society of Hospital Pharmacists

The Society of Hospital Pharmacists of Australia (SHPA) is another regular CE provider to pharmacists. Although its audience consists predominantly of hospital pharmacists, there is growing evidence that community pharmacists, particularly young graduates, find that the CE activities provided by the SHPA fill their gap of clinical knowledge.

The SHPA also seems to lack a cohesive approach to the planning of CE delivery. Each state seems to run its CE via the different special interests groups which are run by volunteer pharmacists. Unlike PSA, SHPA does not attempt to record members' attendance.

National Prescribing Service

The National Prescribing Services (NPS) provides a wide range of services, programs and activities to healthcare professionals with a view towards addressing one of the central objectives of Australia's National Medicines Policy- to improve quality use of medicine. CE is one of many quality improvement strategies used by NPS to promote quality use of medicines. NPS' target audience are general practitioners and pharmacists, and to a lesser extent, nurses and medical specialists. Its core activity is the provision of information via such media as telephone information service, electronic/hard copy newsletters and updates.

NPS has a comprehensive and systematic approach to the planning of its educational delivery needs. It accesses professional organisations, drug-utilisation data, adverse drug reactions reports, key informant/expert interviews, advisory group process and is guided by current trends and problems associated with medicines use. From such information-finding activities, gaps in knowledge, skills and attitudes are identified and intervention strategy is then tailored to target the problem.

Drugs Advisory & Therapeutic Information Service

The Drugs Advisory & Therapeutic Information Service (DATIS) was established in 1991 as a response to the National Medicines Policy's mandate of promoting Quality Use of Medicines (QUM). It has representation on the advisory panel of the Quality Use of Medicine Pharmacy Research Centre. It aims to provide CE for general practitioners and pharmacists using face-to-face and one-to-one academic detailing as well as written publications. Collaborations with the Australian College of General Practitioners started eleven years ago and has resulted in a proliferation of academic detailing to general practitioners. More recent efforts involved the launching of the home medication review (HMR) initiative where DATIS was a main information provider for general practitioners and pharmacists.

Working closely with National Prescribing Service, DATIS identifies the educational needs of general practitioners and pharmacists. It also uses regular literature search, drug safety and quality data and international conference proceedings to determine the most current topics of discussion.

Continuing education regulation and delivery in Australia for other health professions: general practitioners, optometrists, physiotherapists and dietitians

This section gives a brief overview of CE requirements, and delivery structures for a number of health professions with a substantial involvement in primary care.

Regulatory bodies and professional organisations for other healthcare professions

General Practitioners

The Royal Australian College of General Practitioners (RACGP) requires general practitioners to achieve 130 CME (continuing medical education) points over 3 years for renewal of vocational registration. There is currently no mandatory requirement for general registration.

Australian Divisions of General Practice Ltd. (ADGP) was established after a 1998 Commonwealth Government General Practice Strategy Review recommended that ADGP be funded as the national organisation of Divisions. The first local Divisions were established in 1992. ADGP is now a national body representing 120 Divisions of General Practice and 7 State-Based Organisations (SBOs) across Australia. It receives funding from the Commonwealth Department of Health and Ageing to manage national programs aimed to strengthen primary healthcare and to support general practice locally. About 94% of general practitioners are members of a local Division of General Practice.

Many of ADGP's national programs are overseen by committees made up of GPs, academics, allied health professionals and consumers, and cover a wide range of primary care issues. Where appropriate, it works collaboratively with other organisations, such as the **Pharmacy Guild of Australia**, to develop and coordinate a program. To ensure local community needs are met, ADGP also works closely with the SBOs and Divisions when implementing national programs. Each individual Division's mandate is to help achieve QUM for Divisional GPs. Its primary function is to update general practitioners on QUM, and its secondary function is to update other professionals on QUM, for example NPS evidence-based practitioners; research programs like labelling of medications that involved pharmacists and GPs.(47)

Optometrists

There is currently no formal CE requirement for optometrists in Australia. The eight optometry registration bodies around Australia only investigate CE activities if there are complaints about optometrists. Mandatory CE was raised as a consideration for registration in the past, but no action was taken.

As of 1994, members of the Optometrists Association of Australia (OAA) are required to acquire a minimum of 40 CPD points per year or a rolling average of 80 CPD points over 2 years. This system offers flexibility and also limits the validity of the activities undertaken to 2 years and under. Optometrists who achieve these requirements are awarded a certificate testifying to that and are then listed as such in the association's official website. Another incentive for optometrists to achieve these minimum requirements is that they pay lower access charges for indemnity insurance – a deal negotiated between the association and the insurance company.

Physiotherapists

There is currently no formal requirement by registration boards for physiotherapists in Australia to undertake CE. Members of the Australian Physiotherapy Association (APA) are expected to undertake CPD activities - 100 hours are recommended over 3 years, however, this is not a stipulated requirement by the association and there is no penalty, eg. revocation of membership for physiotherapists who do not comply with the recommendation.

Dietitians

There is currently no formal CE requirement for optometrists, physiotherapists or dietitians in Australia by their separate registration boards. Members of the Dietitians Association of Australia are required to undertake 30 hours of CE activities per year. CPD is self-directed and includes the number of practice hours. The association recently introduced an Accredited Practising Dietitians (APD) program that requires candidates to submit CPD portfolios and undergo competency assessments. New graduates and dietitians on re-entry are required to be guided and mentored by an APD for 6 months before licensing.

3. Models of Continuing Education: Attitudes and Experiences of Community Pharmacist Participants

Community pharmacists focus group teleconferences

This section outlines the opinions and perspectives about CE models for both community pharmacists and stakeholders involved in CE provision. For the purpose of this project, focus group teleconferences were conducted with the following four groups of pharmacists:

- Pharmacists who are reasonably experienced and have been qualified for more than 5 years
- Pharmacists who have recently graduated from university i.e. qualified for 5 years or less
- Consultant Pharmacists with specialist training needs such as home medication reviews
- Pharmacists from rural or remote areas

Types of continuing education attended and perceived benefits or non-benefits

- Local Division of GP quarterly meetings - often medication related; informative; appropriate; interactive; learn about current prescribing habits; constructive; some GPs might feel resentful that pharmacists are riding on their tailcoats and benefiting from their network organisation
- Accredited pharmacist and GPs meetings – interactive; good opportunity for networking; could be arranged over lunch to make meeting sociable as well; opportunity to discuss how to initiate HMR
- Home medication review accreditation process – useful; able to learn a lot especially about disease state management
- Journals – convenient; topics are itemised; but don't know how beneficial
- Satellite broadcasts from health channel – accessible, convenient, can watch at anytime; cover a broad range of topics; increase knowledge therefore increase confidence and gives more awareness of what's going on around you clinically and so on
- Task-oriented education i.e. Look up information when encounter a problem that need sorting out – effective way to learn; improves communication with GPs
- Conversation/discussion with peers – effective way to learn.

- Conferences eg. Pharmacy Australia Congress (PAC), Young Pharmacists' Conference, business seminar - good learning environment; benefits of travel; opportunities for networking; business seminars particularly good in filling a void that the undergraduate years didn't fulfil; learn from wider perspective; but some pharmacists just use that as an excuse to travel
- Web search – a wealth of information, but need to be discerning about the quality of information
- Participation in small group discussions - opportunity to upskill, to make friends and to encourage one another
- Small group case conferencing – particularly beneficial if there is clinical/medical input
- PSA consultant pharmacists monthly meetings –expert speaker; interactive, discuss medication reviews, discuss current political states
- NPS New drugs seminars – low-cost, excellent quality, EBM, non-drug company sponsored
- Medical rounds in hospitals – excellent quality
- Weekly CE rounds in hospital pharmacy
- Workshops – increase confidence therefore become proactive in providing service
- Pharmacy interns' clinical case presentations
- One-to-one academic detailing provided by DATIS – EBM, interactive with GP and other pharmacists
- Pharmaceutical Society of Australia video library
- Australian College of Pharmacy practice accreditation programs – study materials are good but assessment of the course is not well-defined
- Participate in AusPharmList on the internet— to link up with latest trend of information and issues; also good for research networking
- Networking workshop
- NPS Newsletters – case studies, questionnaires, feedback/assessment - a useful tool
- Distance education – requires self-motivation, lacks interaction, internet-based therefore may not be accessible to everyone
- DATIS evenings- relevant, applicable, EBM
- Satellite link-ups, satellite seminars, internet courses – good for rural pharmacists
- PSA refresher course – usually exotic overseas venue; good opportunity for travelling
- Day-to-day interactions with pharmacists and other healthcare professionals (pharmacists in rural and remote areas) – “...this type of CE are short, sharp bursts...” which once learnt, will be remembered for a long time
- Medication reviews (pharmacists in rural and remote areas) – the reviews themselves are CE processes.

Relevance and quality of continuing education offered

There seems to be a feeling amongst the pharmacists that CE on offer is too theoretical or 'pharmacology-based' and not clinical or hands-on enough because speakers do not see patients in a clinical setting. CE on offer at the moment is not up-to-date, particularly in the areas of evidence-based medicines (EBM). Quality of GP's education far exceeds that of pharmacists. This makes it difficult for pharmacists to be on par and therefore able to collaborate with other healthcare professions.

There is also a perception that CE is in a bit of a downward spiral at the moment. Most pharmacists agree that PSA has been too ambitious in its recommendations of 40 CE points per annum in their recent publication 'Passport to CE'. (48) They feel it is not achievable. There is also a lack of demand for CE—possibly because of a number of factors: lack of options either geographically or in the content of the CE.

Some pharmacists feel that CE lectures are sometimes put on for the sake of putting on with little consideration of relevance. Likewise, there are a few complaints about SHPA being too scientific and not really relevant to day-to-day practice.

Pharmacists in rural and remote areas seem to give PSA CE programs/lectures their approval with regards to choice of speakers and relevance of topics.

Issues relating to access of continuing education

- Distance and the timing of CE, for instance, night-time CE programs can be difficult to access
- Costs/Expenses – sometimes not just costs of CE, but also travel, salary lost, accommodation, paying a locum pharmacists, etc Also, pharmacists with young families need to keep watch of their expenditure, therefore tough choices have to be made about which organisation to join and which CE to attend
- PSA, NPS and other CE provider organisations need to be supportive and keep pharmacists informed of what is available
- Funding by drug companies is frowned upon, however, sponsorship is sometimes necessary. Therefore subjects and topics need to be chosen with care and rules are laid down clearly with the drug companies.

A young pharmacist who was a graduate from the United Kingdom commented that most CE activities in UK are sponsored by drug companies and hence are free and usually come with food! This seems to be an incentive for some pharmacists, particularly the younger ones, to attend CE.

Distance and time to travel to attend CE was mentioned a number of times by pharmacists who live and practise in rural and remote areas.

Self-reported educational needs

- Clinical knowledge
- Pharmacological advances and new changes in pharmaceuticals
- Know what other healthcare professionals are doing and therefore see their own place in the healthcare picture
- Changes in best practice
- Business management
- Communication/people skills and interpersonal counselling
- Personal development rather than professional competency development
- Pharmacokinetics
- New drugs
- Legislative changes
- Geriatric pharmacy
- Drugs and breastfeeding
- Accessing available information resources – standard texts, references, internet, CD ROM
- Disease state clinical and management guidelines – emphasize on interventions a pharmacists can do to make a difference in patients outcome
- Younger pharmacists should learn what is practical and what actions can be applied
- Older and more experienced pharmacist need to update their clinical knowledge
- CE should be tailored at the right knowledge and experience level of target audience.
- Smoking cessation
- HMR accreditation
- Understanding community needs.

Some pharmacists concede that they don't always know what they don't know.

Pharmacists in rural and remote areas commented that they need a broad range of CE topics because they are expected to be a 'Jack of all trades' and expected to have broad and varied knowledge.

Issues relating to continuing education delivery

Pharmacists commented on the necessity to choose what professional organisations to join and subsequently which CE activities to attend because of the number of CE providers and organisations available. CE delivery is rather uncoordinated at the moment.

Pharmacists all seem to enjoy a variety of ways of learning, suggesting that a mix of delivery modes is deemed to be important to capture as many pharmacists as possible.

Most pharmacists agree that small interactive groups, staying structured and focused work best. Consultant pharmacists particularly value interactions with GPs, and forming good working relationship and rapport.

Pharmacists in rural and remote areas also commented that hands-on tasks and problem solving provide the best CE, the content and context of which they will remember for a long time.

Opinions on current continuing education requirements by regulatory authorities

Tasmania and South Australia are currently the only two states with guidelines on CPD portfolio development. Whilst these are recommendations for pharmacists rather than mandatory requirements, pharmacists are informed that their portfolio will be periodically audited by their respective authority. This seems to induce a diligent adherence by the pharmacists, particularly the Tasmanian pharmacists, to their portfolio development. There also seems to be some confusion as to whether the portfolio is a mandatory requirement for registration in the two states. There are also misconceptions about the use of portfolios as competency-based assessment, as well as confusion about exactly what and how to document. Some agree that the portfolio system is more user-friendly than existing systems. It is based on self-regulation and 'true-to-oneself'. Some also concede that the portfolio system, like other existing systems, is still open to abuse.

Pharmacists in Victoria seem to think that the 40 CE points expected by PSA VIC are unachievable and therefore are looked upon disparagingly. Whilst most pharmacists agreed that CE or CPD should be mandatory requirement for registration, some (particularly the consultant pharmacists group) prefer a more flexible arrangement taking the difficulties some people may have in accessing adequate CE activities.

The younger pharmacists feel that 20 CPD points required by the South Australian Pharmacy Board is very achievable. There is again some confusion amongst this group of pharmacists as to whether this requirement is mandatory

Other barriers to participation in continuing education

- Sole pharmacists – difficult to get away
- Employee pharmacists – need time off and finding replacement staff may be a problem
- Apathy/‘Can’t-be-bothered’ attitude
- Laziness
- Time
- Location
- Extended work hours
- Family commitments eg pharmacists with young families may find it difficult to commit to weekend CE activities
- Business commitments
- Conflicting priorities
- Community commitments (particularly for pharmacists in rural and remote areas)
- Part-time pharmacists may lack incentive to attend CE
- Slow computer access to internet
- Non-compulsory nature of CE
- ‘Tired’ pharmacists –from extended work hours and extended work life
- Perception that CE/CPD/portfolio are just ways to scrutinise pharmacists. So some pharmacists choose not to cooperate
- Some pharmacists are too set in their ways to ‘change’ or ‘be told what to do’
- Difficulty in finding a locum.

Most pharmacists said they are willing to attend monthly or twice monthly CE and one to two larger conferences in a year. Pharmacists in rural and remote areas, no matter their age or experience,

attend CE activities less frequently for the obvious reasons associated with distance and lack of opportunity. One young pharmacist in remote South Australia seldom attends structured CE activities, except for a few multidisciplinary seminars. Her main CE consists of information collection in the course of her work involvement with medication reviews. Interestingly, pharmacists in rural and remote areas also seem to regard their day-to-day activities like provision of drug information, answering drug-related enquiries, counselling of patients and interaction with their peers and colleagues as ongoing CE experiences

Ideas to improve the effectiveness of continuing education

- Try appealing to pharmacists' sense of camaraderie and companionship with fellow pharmacists
- Make CE compulsory/mandatory but level should be achievable (Experienced pharmacists)
- Do not make CE mandatory. Look at portfolio development. Make it a requirement but be flexible about it, taking into accounts some pharmacists' difficulty in accessing relevant CE because of age, geography (Consultant pharmacists)
- Publicise assistance schemes that are available to assist in funding individual's CE activities, for instance, rural pharmacists could apply to the Rural Workforce Development Program for travel and expense awards when attending out-of-town CE activities
- Offer a wider variety in contents and in ways of accessing CE
- Shift attention to having CE to address issues that are not working or still unresolved, for instance, workplace-based training program that actually addresses things that aren't working
- Better communication to pharmacists about what CE is available. Create a mailing list database
- Link CE activities to competency standards to give pharmacists incentive to attend
- Portfolio development is tedious but interesting because it forces pharmacists to take stock of their learning/CE needs. A good awakening exercise, and should be considered
- Engage more community pharmacists in pharmacy research. The knowledge gained from such exercises can enrich their professional development
- Develop strong pharmacists' network
- Make CE activities free and throw in a meal as well! (Young pharmacists)
- Have recommended prior reading or prerequisites when organising CE activities
- Provide occasional funding for travel expenses for pharmacists in rural and remote areas
- Better education for pharmacists at under-graduate and entry level so as to create a culture of never-ending lifelong learning attitude.

Other Advice to Pharmacy Boards

- Pharmacy Boards should maintain high standards in their requirements for pharmacists' registration, however there should be flexibility.
- Pharmacy Boards should undertake the role of alerting pharmacists as to what CE is available if they wish to maintain CPD of pharmacists.
- CE/CPD documentation submitted by pharmacists at re-registration each year should be properly evaluated and feedback given back to pharmacists and a record kept.

Mentoring program for new graduates and even some older ones should be considered.

4. Models of Continuing Education: Attitudes and Experiences of Continuing Education Providers

Continuing education providers interviews

For the purpose of this project, representatives, usually managers of professional education and development, from the Pharmaceutical Society of Australia (PSA), Drug and therapeutic Information Service (DATIS), National Prescribing Service (NPS), a Division of General Practice (DGP) as well as from organisations of disciplines other than pharmacy, like the Optometrists Association of Australia (OAA), Australian Physiotherapists Association (APA), and Dietitians Association of Australia (DAA), were interviewed and asked specific questions (Appendix 4) about CE requirements, provision and delivery. Note that responses to questions during the interview by representatives of the above-mentioned organisations are herewith reported as from their organisations.

Amongst organisations that were interviewed, only PSA provides CE only to pharmacists. Although DATIS, NPS & DGP are multidisciplinary CE providers that concentrate on issues relating to medicines use, representatives from these organisations at the interviews were all pharmacists. OAA, APA and DAA are organisations other than pharmacy.

All admitted that there was no mandatory CE component for re-accreditation by their particular profession. While pharmacy and multidisciplinary organisations felt that CE requirements should be mandatory for pharmacists and the CE model that Australian GPs are using could be adopted. Interestingly, the other healthcare professionals did not feel that there is a link between mandatory CE requirements and improved practice.

Three of the four pharmacy and multidisciplinary organisations felt that community pharmacists value CE, however only 20-25% of PSA members attend PSA CE activities regularly, and NPS also reports low pharmacist attendance rate.

Issues relating to planning

Even though all interviewees were able to report important areas of educational need for their particular profession or target audience, none appeared to have a systematic means of planning all of their educational delivery needs.

No formal objective assessment of educational needs seemed to be carried out. Determining areas of needs seem to be ad hoc and is, in some cases, limited to 'what or who is available'. All pharmacy and multidisciplinary organisations 'research' and plan their CE programs by doing literature search of new issues, observations of emerging trends, scrutinising Adverse Drug Reactions Advisory Committee (ADRAC) reports, safety and quality assurance data, or attending international conferences. NPS also uses expert panels to develop its CE activities, and DAA in Victoria regularly surveys its members and ask them what they need or want. Some organisations have special interests groups or state-based divisions that run their own CE programs.

It is interesting that DGP commented that its CE committee sees CE delivery and achieving quality use of medicines (QUM) as separate concerns.

Issues relating to system of delivery

Not all organisations that were interviewed have a very systematic approach to organising the delivery of CE to their members. The PSA has local area coordinators in regional/country areas and major centres in urban areas. DATIS, NPS & DGP work closely in joint programs, which are mainly face-to-face and one-to-one academic detailing appointments with general practitioners, and sometimes pharmacists. This mode of delivery would eliminate many difficulties in access for rural and remote pharmacists if implemented on a national basis. Larger scale programs and seminars are also organised. DATIS has an additional function to train NPS' education visitors who then reach out to CE recipients through their academic detailing.

The OAA seems to run its education programs parallel to other organisations and institutes, but it does not seem to coordinate their delivery. The DAA does not have a specific system to deliver CE to its members but seems to organise CE activities that will target as many dietitians as possible, e.g. seminars, national conferences.

The PSA noted that its structure of CE delivery is a result of its strategy to install infrastructures in regional areas to reach out to members in those areas. DATIS & NPS also noted that their structure of CE delivery is a result of its strategy target areas of educational needs. The APA's strategic plan is to deliver appropriate CE to as many of its members as possible by setting up national special interests groups. The DGP, OAA and DAA reported that their structure of delivery did not result from any strategic planning. This is particularly evident in the latter two organisations whose CE deliveries did not appear structured or systematic.

Issues relating to funding

The PSA, OAA, APA & DAA all use membership fees to fund CE activities. Members attend such activities for free or pay a minimal rate. The DAA's CE activities are usually sponsored by commercial groups and companies, and it has a system that categorises sponsors according to their commercial interests.

Both the NPS & DGP are government-funded organisations. All academic detailing activities are free for participants. The DATIS is funded independently either by NPS or intermittent grants from other government departments/organisations.

The OAA reported an interesting occurrence when its Queensland division increased its membership fees by a fraction and informed its members that their membership fees now cover all CE programs. Its CE attendance subsequently improved dramatically.

Issues relating to access

All organisations that were interviewed felt that members in rural or remote areas had particular difficulty in accessing sufficient amounts of relevant CE or CPD and attributed this to the need to travel substantial distances for participation. The OAA, in particular, attributes this access difficulty to the locality of optometry schools. In other words, there is no shortage of CE programs on offer in cities like Melbourne, Brisbane and Sydney where optometry schools are located, but optometrists in Perth or rural areas would have long distances to travel for CE activities. The DAA's members often reported being strongly supported by their employer-organisations in terms of travel subsidies and leave of absence.

Young families, extended working hours and costs were identified as barriers to attending CE activities. Quality and relevance of CE programs are also identified. General practitioners often have

difficulty in accessing high-quality CE because they are constantly offered an over-supply of CE activities of all qualities. Doctors are required therefore to make the effort, time, as well as judgement, with regards to which CE to attend. Dietitians who work in specialized fields, like paediatrics or renal also have difficulty in accessing relevant CE.

Attitudinal barriers were also identified from interviews - young pharmacists believe they know a lot and therefore do not require CE; some metropolitan general practitioners & pharmacists are 'too busy' to take up CE; optometrists in NSW were not taught and therefore, in general, do not view CE as part of their professional culture; it was felt that most doctors expect extravagant food and venue when attending CE activities.

Ways to overcome distance barriers have been variously suggested, ranging from regional conferences/seminars, face-to-face and one-to-one academic detailing, web-based activities, correspondence courses, intensive on-line courses, to giving preferential CE places to rural members.

Keeping course fees to a minimum or membership fees to an affordable level would help participants, particularly those who work part-time, to be able to afford high-quality CE.

The time-poor or 'too busy' issue could be addressed by organising after-hour CE activities or organising them on a day and at a time that least impacts on family commitments; for instance, the OAA changed its weekend seminars to weekdays and found members in NSW responded accordingly and attendance increased.

To overcome the difficulty of assessing the quality of CE activities, professional bodies should accredit and give weightings to different CE programs.

Issues relating to modes of delivery

Many modes of CE delivery were identified. These modes and their merits and demerits discussed during the interviews are listed in Table 2.

Table 2 Merits and demerits of modes of CE delivery identified by CE providers

Mode of CE delivery	Merits	Demerits
Didactic lectures, seminars, conferences	Good information delivery tool; cheap and easy to run; offer some opportunities for interaction and networking.	No evidence that they effect practice change.
Interactive activities eg. Internet-based, CD-ROM courses	Increased availability and accessibility to rural and remote areas	Limited in what can be achieved; no instant interaction with other participants.
One-to-one academic detailing	More opportunities to impart knowledge; more able to influence individual behavioural change	Time-consuming; requires a lot of manpower; cost
Small group intensive courses, workshops, group meetings, case-based discussion, joint sessions with GPs and pharmacists	Hands-on and practical; provide forum and basis for discussion	Hard to meet individual needs; hard to assess behavioural change
Video-conferencing, video-/satellite- link up	No comment during interviews	No comment during interviews
Journal publications	No comment during interviews	No comment during interviews
Videos of lectures/seminars for loan	No comment during interviews	No comment during interviews

Issues relating to accreditation of CE

All organisations that were interviewed, except the DAA, reported having a method of formal accreditation of CE delivery services in their profession.

The OAA promotes quality in that higher points are given to courses with assessment and with a hands-on component, and lower points are given to remote learning, especially if without assessment, and industry-sponsored CE activities.

Issues relating to assessment of CE

All agreed that there is no one best way and it is hard to assess the effectiveness of CE. Various means were suggested during the interviews - case studies, assessments, presentations, CE log, CPD portfolio, objective structured clinical examinations (OSCEs), multiple-choice questions (MCQ), etc. Portfolio self-assessment is complex and requires careful guidelines. Healthcare professionals may not necessarily have the ability to assess quality of CE programs.

Objectives and mode of delivery of a CE program also need to be assessed. There should be mandatory accreditation of CE providers and CE programs.

Most important considerations in planning a model of CE delivery for healthcare professionals

Many considerations were raised during the interviews:

- Aims and goals of CE must be clear to achieve high quality CE activities, and hence to demand quality from pharmacists
- Time and resources should go into planning & preparation to achieve wider dissemination of CE
- CE must be educationally sound, relevant and practical
- CE delivery must be structured
- CE should be devised by people who have expertise in delivery and assessments, like skilled educators, education providers/advisors
- Access to CE
- Understand who your target audience is
- Infrastructure
- Financially viable

5. Discussion

It is evident from all aspects of this review that CE is essential for the maintenance and development of a pharmacist's role; moreover, this attitude seems to be universally accepted by all stakeholders. In its definition of CE, the Council on Credentialing in Pharmacy described CE as being 'organised learning experiences and activities ... designed to promote the continuous development of the skills, attitudes and knowledge needed to maintain proficiency, provide quality service or products, respond to patient needs, and keep abreast of change.' (9) In essence, this implies that the main value of CE lies in its contribution to CPD. A commonly held view within focus groups (admittedly comprised largely of CE enthusiasts) was that attendance at CE events also served to heighten a personal sense of professionalism.

With notable exceptions, this review found that current models of CE delivery to community pharmacists and other primary health professionals generally focus heavily on delivery of clinical information and therapeutic updates through the organisation of structured formal experiences and activities. Other important goals of CE such as the development of professional skills, and quality improvement in services, are often perceived as intuitive dividends of this process. Consequently, these aspects seem to be less frequently prioritised in the planning of CE by some providers.

It is important to realise that few, if any, of the eight areas of practice competency outlined for pharmacists by the PSA (1) can be effectively developed solely on the basis of knowledge transfer. This was acknowledged in focus groups, where a number of participants strongly advocated the quite meaningful education gained through solving problems in the clinical/applied setting, through feedback about patients, and through multi-disciplinary interaction. Previous studies reinforce this idea that effective changes in practice do not derive solely from the provision of information. (6, 15-17) This suggests that there is merit in an increased use of practice-centred CE rather than didactic approaches to CE.

The reasons for any gaps in content or delivery may be more complex than a failure to conduct thorough educational needs assessments by CE providers (although this seems to be an issue for some organisations). If health professionals have limited time to take part in educational activities, they may themselves wish to prioritise therapeutic knowledge ahead of other issues in the belief that

this is the best safeguard against poor practice standards. In this sense, CE providers may simply be responding to educational needs as expressed by health professionals (and paying subscribers) in the way that they structure CE provision.

Funding is also quite obviously a major factor in determining what education can be provided. Unlike their role in ensuring provision of CE to physicians through the Royal Australian College of General Practice, the Australian government has played a far less proactive role in the provision of CE to pharmacists. Nevertheless, it constantly demands increased standards of practice from the profession, and regularly blurs the line between standards of product dispensing and standards of pharmacy service. Government agencies need to realise that good quality service requires investment of time and money.

On the other hand, those CE providers whose organisations are funded with a particular mandate (e.g. rational prescribing) may not be able to justify diverting their educational resources towards developing more generic practice skills. Moreover, while the PSA has produced quite a comprehensive statement of competency standards for pharmacists, (1) there does not appear to be a complementary strategy from any CE stakeholder detailing how CE should be coordinated and promoted on a national basis to ensure the availability *and awareness* of an appropriate range of comprehensive CE activities.

The nature of current CE content is highly valued by pharmacists and provides an invaluable service in keeping the profession abreast of developments relating to drug therapy; it is acknowledged that this is fundamental to CE for pharmacists. This review has identified the following additional issues, some already addressed by various CE delivery organisations, as meriting consideration in the development of future CE offered to contemporary Australian community pharmacists:

An expanding role for community pharmacists

Most practising pharmacists require general competency relating to a number of the more prevalent disease states and therapeutic issues. As community pharmacists continue to specialise or sub-specialise in areas as diverse as screening, aboriginal health, chronic disease management and medication reviews, there is a corresponding need to provide tailored CE for special interest groups which is pitched at an appropriate level. It may also result in an increasing importance for CE which might traditionally be seen as largely the domain of hospital pharmacists (e.g. interpretation of lab results, pharmacokinetics, compounding).

Pharmacists also operate in a range of settings (both in an occupational and geographical sense), and this may bring with it a need for resources orientating them to issues such as the needs of particular communities, health strategies, and the structure of local health services. CE providers should also be mindful of the numerous public health and health promotion functions undertaken within the community pharmacy setting on an informal basis.

The amount of available information

Pharmacists now routinely access educational materials from sources not traditionally used for educational purposes, especially the internet. The enormous proliferation of resources makes such providers impractical to regulate. There is therefore a definite need for pharmacists to understand how to search for appropriate information, and to be able to assess the reliability of information uncovered.

The changing nature of practice

Primary care is increasingly being delivered in a multidisciplinary setting, and some of the new roles that pharmacists are adopting have furthered the degree of interaction with other professions. This necessitates the provision of CE that is sensitive to developing an understanding of how other healthcare sector professionals work, and how pharmacists can best contribute within a team approach. For example, some focus group participants expressed confidence in their theoretical knowledge regarding drug interactions and pharmacology; however, because they feel inadequately informed about general practice perspectives such as the place of a given treatment within clinical protocols, it is more difficult to generate solutions to clinical issues that are identified.

The health services are increasingly being oriented towards a patient-centred approach, and this has ramifications in terms of how pharmacists deal with patients. Little *et al* produced empirical evidence of patient preferences for the following domains of patient-centredness in general practice, especially among more vulnerable and ill patients: (49)

- communication - exploring the disease from the patient's point of view and in the context of the person as a whole
- partnership - finding common ground and reaching a mutual decision about treatment. This also encourages a relationship of equals between patient and practitioner
- health promotion and disease prevention.

Both the literature review and the focus groups identified communication skills as an area where most pharmacists have not received formal training in the past, and those with poor communication

skills are often the least likely to recognise this weakness. (50, 51) The development of community-based cognitive services (such as medication reviews) in pharmacy may accelerate the need to support the development of such attributes through CE.

The method by which CE is delivered will dictate which pharmacists can reasonably undertake it. This review identified barriers to attendance at CE events, and these mostly relate to the fact that pharmacists have substantial and unavoidable commitments both within their job and within their personal lives. Other barriers, such as affordability, or the inability to find locum cover, highlight important considerations such as the need to ensure that the cost of CE is not so great that it substantially limits options, and the responsibility to ensure a flexible approach to education delivery using a variety of modes - both traditional/contact such as lectures and workshops, as well as more flexible modes of delivery such as by correspondence and internet discussion groups.

The need for mandatory assessment of CE stems from a need to ensure that *all* practising pharmacists are maintaining and developing their competencies and practice standards. Focus group feedback did suggest an opinion that some pharmacists demonstrate apathy towards participation in CE activities and that a 'stick' approach was necessary. Even the enthusiastic CE participants in our focus groups were wary of the prospect of being unable to meet high competency expectations because of an absence of sufficient guidance from assessment bodies about how to meet assessment criteria and demonstrate competency. There may also be a place for positive incentives.

In terms of how to assess CE, the common practice of simply measuring participation rates (contact hours) is a poor proxy indicator of competence and runs the risk of encouraging CPD points-seeking by pharmacists rather than a thorough consideration of their professional development needs; it is perhaps even counterproductive in some respects. It encourages pharmacists to undertake whatever didactic CE is convenient and accessible, perhaps at the cost of them undertaking more relevant self-directed learning.

Ultimately, the manner in which we learn will be affected by how we are assessed. The 'gold standard' for assessing the adequacy of professional development activities must surely be an improvement in the quality of service delivered by pharmacists. Practically speaking, this is difficult to measure and international efforts towards this are at a relatively experimental stage. The concept of portfolio-assessment systems such as those used in Tasmania and South Australia do appear to stimulate a desirable move away from points-chasing towards a more holistic consideration of professional development and competencies.

In summary, CE is an essential component of modern professional practice. We can conclude that most of the initiatives undertaken by a whole range of CE providers in pharmacy benefit the profession in some way. The development of a successful 'model' for CE delivery, however, is a broader concept than the act of delivering education. Developing a model for its delivery requires CE to be considered in the context of desired outcomes, and the provision of a framework by which CE achieves these end goals. Such a model should consider issues such as: What beneficial outcomes are expected, both for individual pharmacists, the profession, and for society as a whole? How do you ensure sufficient access to and participation by all pharmacists? How should the model be funded? How can regulatory mechanisms be used to promote effective CE? It must consider the relevant needs and perspectives of all stakeholders- pharmacy boards, CE providers, government and health agencies, patients, academic institutions, other health professions and pharmacists.

6. Recommendations

Based on the findings of this review, we have identified the following key issues as meriting consideration in the development of an ideal model of CE for Australian community pharmacists:

Planning

1. Develop a partnership-based strategy for CE, and a funded consortium of all stakeholders to ensure its implementation: all stakeholders involved in the delivery of education, whether through funding, delivery, or assessment, should agree on common objectives for the delivery of CE to the profession as a whole. A strategy should also identify any unfulfilled roles in the organisation of CE and devise strategies for addressing these.
2. Develop a coherent mechanism for the multi-organisational delivery of CE to pharmacists: this should work towards avoiding the duplication of CE roles for core professional organisations, and towards a wider promotion of available CE to pharmacists.
3. Develop a systematic strategy for assessing the education needs of community pharmacists, and thereby for identifying appropriate content for CE. This will subsequently require consideration of measures to ensure that the profession has the capacity to offer quality CE in the broad range of areas identified.
4. Pharmacy Boards should develop guidelines for parties seeking to deliver CE. This should detail all aspects for consideration in the organisation of an event, as well as defining the difference between CE and promotional events. Such guidelines could even extend to a voluntary code of practice, however this should not be so complex that it discourages the delivery of CE.
5. A clear policy should be developed on the funding of CE activities. An ideal model of CE should be able to provide sufficient levels of independent high-quality CE at a reasonable - if not nominal - cost to individual pharmacists, and this would require subsidies for CE delivery. High quality CE in pharmacy benefits society as a whole and as such it is not unreasonable to expect governmental support for professional education initiatives.

Delivery

1. Delivery of CE should be multi-modal and thereby cater for differences in preferred learning styles, as well as differences in the ability to access certain types of CE.
2. Introduce innovations that will help to overcome real barriers to attendance at CPD. E.g. provision of childcare at events, or travel subsidies for rural pharmacists.
3. CE should be delivered in a manner that considers the principles of successful adult learning, including problem-based learning.
4. Models and approaches to CE should address the defined educational needs of community pharmacists.

Assessment

1. The CE undertaken by pharmacists should be assessed in a manner that promotes continuing professional development as the end goal and not the amassing of CPD points. If attendance at CE is to merit CPD points, it should be based on an objective evaluation of the CE provided – e.g. points for fulfilling criteria such as an evidence-based approach, the incorporation of problem-based learning etc. Assessment should ideally attempt where possible to assess actual practice, but this does not currently seem feasible.
2. There should be a mandatory requirement for practising pharmacists to undertake the minimum amount of CE required for maintenance of competency. This will only be justifiable however if an adequate amount of appropriate CE is clearly available.
3. The objectives and standards for assessment of CE undertaken by pharmacists should be defined: where they have not done so, Pharmacy Boards and other assessment bodies should develop guidelines and provide support to pharmacists so that they are seen as partners in the professional development process, and so that there is clarity regarding reporting requirements.
4. CE providers should undertake periodic self-assessment based on participant feedback and develop mechanisms for addressing such feedback.

5. Positive incentives should be used where possible to encourage uptake of CE. For example, reduced registration fees or indemnity fees for pharmacists seen to undertake sufficient levels of CE

7. References

1. Pharmaceutical Society of Australia. Competency Standards for Pharmacists in Australia. 2003 ed: PSA; 2003.
2. Cervero RM. Continuing professional education in transition, 1981-2000. *Int J of Lifelong Education* 2001;20(1/2):16-30.
3. Daniels AS, DA. W. Current issues in continuing education for contemporary behavioural health practice. *Administration and Policy in Mental Health* 2002;29(4/5):359-376.
4. International Pharmaceutical Federation. FIP Statement of Professional Standards. Continuing Professional Development. In: International Pharmaceutical Federation; 2002. p. 1-4.
5. Pharmaceutical Society of Australia (Victorian Branch) Ltd. Your passport to CPE 2005. In: PSA (Victorian Branch) Ltd; 2005.
6. Rethans FF, Norcini FF, Baron-Maldonado M, Blackmore D, Folly BC, LaDuca T, et al. The relationship between competence and performance: implications for assessing practice performance. *Medical Education* 2002;36:901-909.
7. Austin Z, Marini A, Croteau D, Violato C. Assessment of pharmacists' patient care competencies: validity evidence from Ontario(Canada)'s quality assurance and peer review process. *Pharmacy Education* 2004;4(1):23-32.
8. American Society of Hospital Pharmacists. ASHP Statement on Continuing Education. In: *Am J Hosp Pharm: American Society of Hospital Pharmacists*; 1990. p. 1855.
9. The Council on Credentialing in Pharmacy. Credentialing in Pharmacy. *Am J Health-Syst Pharm* 2001;58(1):69-76.
10. Accreditation Council for Pharmacy Education. Definition of Continuing Education for the Profession of Pharmacy. In: ACPE; 2003. p. 1-2.
11. Accreditation Council for Pharmacy Education. Guidelines Associated with the ACPE Definition of Continuing Education. In: Accreditation Council for Pharmacy Education; 2003. p. 1-3.
12. Rouse M J. Continuing professional development in pharmacy. *Journal of the American Pharmacists Association: JAPhA* 2004;44(4):517-20.
13. Council on Credentialing in Pharmacy. Resource document on continuing professional development in pharmacy, 2004. Washington DC: Council on Credentialing in Pharmacy.; 2005 Apr.
14. Miller GE. The assessment of clinical skills competence performance. *Academic Medicine* 1990;65(9):S63-S67.
15. Ram P, van der Vleuten C, Rethans J, Schouten B, Hobma S, R. G. Assessment in general practice: the predictive value of written-knowledge tests and a multiple-station examination for actual medical performance in daily practice. *Med Educ* 1999;33(3):197-203.

16. Rethans JJ, Sturmans F, Drop R, van der Vleuten C, P. H. Does competence of general practitioners predict their performance? Comparison between examination setting and actual practice. *BMJ* 1991;303(1377-80).
17. Southgate L, M. P. Revalidation: Revalidation in the United Kingdom: general principles based on experience in general practice. *BMJ* 1999;319(7218):1180-1183.
18. Benrimoj S, Langford J, Berry G, Collins D, Lauchlan R, Stewart K, et al. Economic impact of increased clinical intervention rates in community pharmacy. A randomised trial of the effect of education and a professional allowance. *Pharmacoeconomics* 2000;18(5):459-68.
19. Spencer JA, RK. J. Learner centred approaches in medical education. *British Medical Journal* 1999;318:1280-3.
20. Igarashi M, Suveges L, G. M. A comparison of two methods of needs assessment: implications for continuing professional education. *Canadian Journal of University Continuing Education* 2002;28(1):57-76.
21. Mucklow JC. Continuing medical education in clinical pharmacology and therapeutics: report of a questionnaire survey. *British Journal of Clinical Pharmacology* 2001;52(1):9-16.
22. Schon D. *Educating the reflective practitioner.*: Jossey-Bass; 1990.
23. Davis D. Commentary: Clinical practice guidelines and the translation of knowledge: the science of continuing medical education. *Canadian Medical Association Journal* 2000;163(10):1278-9.
24. Perez-Cuevas R, Reyes H, Guiscafne H, Juarez-Diaz N, Oviedo M, Flores S, et al. The primary care clinic as a setting for continuing medical education: program description. *Canadian Medical Association Journal* 2000;163(10):1295-9.
25. Cooper H, Carlisle C, Gibbs T, C. W. Developing an evidence base for interdisciplinary learning: a systematic review. *Journal of Advanced Nursing* 2001;35(2):228-237.
26. Chan DS, Callahan CW, C. M. Multidisciplinary education and management program for children with asthma. *Am J Health Syst Pharm* 2001;58(15):1413-1417.
27. Keith MR, Jr. CE. Clinical training program for distributive pharmacists. *American Journal of Health System Pharmacy* 1997;54(6):674-7.
28. Thomson O'Brien MA, Oxman AD, Davis DA, Haynes RB, Freemantle N, Harvey EL, , ABSTRACT. Educational outreach visits: effects on professional practice and health care outcomes (Cochrane Review). *The Cochrane Library* 2005(Issue 2).
29. Gilbert A, Edwards D, Kardachi G, Rowett D, Mott K. Improving the quality, effectiveness and sustainability of smoking cessation services, delivered through community pharmacies. In: Pharmacy Guild of Australia, editor. http://www.guild.org.au/public/researchdocs/2002-013_finalreport.pdf; 2004.
30. Accreditation Council for Pharmacy Education. ACPE Website. In. <http://www.acpe-accredit.org>.
31. National Association of Pharmacy Regulatory Authorities. NAPRA Homepage. In. <http://www.napra.org>.
32. Canadian Council On Continuing Education In Pharmacy . CCCEP Homepage. In. <http://www.cccep.org/>.
33. Royal Pharmaceutical Society of Great Britain. RPSGB Homepage. In. <http://www.rpsgb.org.uk>.
34. BIOME. OMNI website: Education, Pharmacy, Continuing. In. <http://omni.ac.uk/text/browse/mesh/D004513.html>; University of Nottingham.
35. Pharmaceutical Society of New Zealand. Pharmaceutical Society of New Zealand (Incorporated) Homepage. In. <http://www.psnz.org.nz>.

36. The Pharmacy Board of South Australia. Guidelines for Evaluating programs and Material offered as Pharmacy Specific Continuing Professional Development (Appendix One): The Pharmacy Board of South Australia; 2005.
37. Pharmacy Board of South Australia. Pharmacist Registration Package. Appendix One: guidelines for evaluating programs and material offered as pharmacy specific continuing professional development. In: Pharmacy Board of South Australia; 2005.
38. Pharmaceutical Society of Australia. Pharmacist Registration Package. Appendix two: ENRICH credits (ECs) allocation guide. In: Pharmacy Board of South Australia; 2005.
39. Pharmacy Board of South Australia. Pharmacist Registration Package. Appendix three: ENRICH examples. In: Pharmacy Board of South Australia; 2005.
40. Pharmacy Board of South Australia. Pharmacist Registration Package. Appendix four: Resource examples. In: Pharmacy Board of South Australia; 2005.
41. Pharmacy Board of South Australia. Pharmacist Registration Package. Appendix five: ENRICH retention package. In: Pharmacy Board of South Australia; 2005.
42. Pharmacy Board of South Australia. Pharmacist Registration Package. Appendix six: ENRICH credits record sheet. In: Pharmacy Board of South Australia; 2005.
43. Health Professions Licensing Authority. Application for Registration as a Pharmacist. In: Health Professions Licensing Authority; 2005. p. 1-4.
44. Northern Territory Government Health Professions Licensing Authority. Application for registration as a pharmacist. In: Northern Territory Government Health Professions Licensing Authority; 2004. p. 1-4.
45. The Pharmacy Board of Tasmania. Personal Audit of Basic Competency. In: Competency Package: The Pharmacy Board of Tasmania; 2005. p. 1-4.
46. The Pharmaceutical Society of Australia National Education Division. Guidelines for the Recognition of Activities Conducted by Non-PSA Bodies under the PSA CPD & PI Program. In: The PSA National Education Division; 2004.
47. Australian Divisions of General Practice. ADGP Ltd. Homepage. In: <http://www.adgp.com.au/>.
48. Pharmaceutical Society of Australia. Your Passport to CPE 2005: PSA; 2005.
49. Little P, Everitt H, Williamson I, Warner G, Moore M, Gould C, et al. Preferences of patients for patient-centred approach to consultation in primary care: observational study. BMJ 2001;322(7284):468.
50. Dunlop JA, JP. S. Community pharmacists' perspectives on pharmaceutical care implementation in New Zealand. Pharmacy World & Science 2002;24(6):224-30.
51. Johnson S, Hughes E, R. W. Developing communication skills for pharmacist-led clinics. Medical Education 2002;36(11):1092-3.

Appendix 1: Community Pharmacist Information Letter



Community Pharmacist Information Letter

19 April 2005

Dear Pharmacist,

Following your previous expression of interest, I am writing to formally seek your involvement in a research project that examines a number of issues relating to continuing education for pharmacists. Involvement will require your participation in a one-hour teleconference with other pharmacists we believe have certain specific educational needs based on your professional background.

The project is funded by the Pharmacy Guild through the Community Pharmacy Research Support Centre and is being undertaken by researchers at the Victorian College of Pharmacy and Flinders University. If you wish to contact us about any aspect of the project, please feel free to contact me at the Victorian College of Pharmacy (phone 03 9903 9526, email phyllis.lau@vcp.monash.edu.au).

Involvement in the project will give you a unique opportunity to inform the development of new policy and initiatives relating to continuing education for pharmacists in Australia. The project will provide an overview of current continuing education programs both in Australia and internationally, and will seek to identify the educational needs of Australian pharmacists and barriers to participation in continuing education. The final report will be made publicly available.

The project has been cleared through the Flinders University Social and Behavioural Ethics Committee, and the Monash University Standing Committee on Ethics in Research Involving Humans (SCERH). I have enclosed an information sheet that describes the research project.

If you agree to be involved in the research project, please sign the attached consent form and return it by fax to Dr Phyllis Lau at 03 9903 9629. We will then call you to arrange a suitable teleconference time.

Being a part of this research project is entirely voluntary. If you do not want to participate, then please indicate this when we conduct a follow-up phone call. You may also change your mind and withdraw from the research project at any time.

I would like to stress that any information provided will not identify any patient, health care professionals or even individual communities in either the report or any publications which may arise from the research. Equally, the information gathered will not be used for the purposes of any other project.

Yours sincerely

Dr Phyllis Lau
Department of Pharmacy Practice
Victorian College of Pharmacy
Monash University
381 Royal Parade,
Parkville VIC 3052.
Tel: +61 3 9903 9526
Fax +61 3 9903 9629



Community Pharmacist Information Sheet

RESEARCH STUDY INTO CONTINUING EDUCATION FOR PHARMACISTS

INFORMATION SHEET

You are invited to take part in a research study entitled 'Primary health professional education - current models and barriers to participation'. The broad objectives of this project are as follows:

- to understand the advantages and disadvantages of different models of continuing education
- to identify barriers to participation in educational activities by pharmacists.
- to make recommendations about the future delivery of continuing education to community pharmacists

The study is being conducted by researchers from Flinders University based in Warrnambool (Mr Kevin Mc Namara, Prof James Dunbar) and Adelaide (Prof David Prideaux) and from Victorian College of Pharmacy, Monash University, in Melbourne (Mr Greg Duncan, Dr Jennifer Marriott. Dr Phyllis Lau from Monash University is the project manager.

If you agree to participate in this study, we will telephone you and arrange a time convenient for you to take part in a teleconference. The teleconference will involve approximately 4 to 5 pharmacists from around Australia who are likely to have similar education requirements. Please be aware that other participants in your group interview will hear your responses during the group interview process. The interview will be based entirely around questions relating to continuing education:

The teleconference will be chaired by a professional focus group facilitator and should take about one hour to complete. It will be audio-taped to allow for an accurate record. The audio-tape will be transcribed and analysed by the facilitator who will be subject to the same level of confidentiality as all researchers associated with this project.

All aspects of the study, including results, will be strictly confidential and only the researchers named on the approved ethics applications will be able to access to information on participants except as required by law. A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report. Equally, data collected during this project will not be used for any other project.

Participation in this study is entirely voluntary: you are not obliged to participate and - if you do participate - you can withdraw at any time.

When you have read this information, Dr Phyllis Lau will discuss it with you and answer any questions you may have. If you would like to know more at any stage, please feel free to contact Phyllis by phone at (03) 9903 9526, or by email at <phyllis.lau@vcp.monash.edu.au>. This information sheet is for you to keep.

Any person with concerns or complaints about the conduct of this research study can contact either

- The Secretary, Social and Behavioural Research Ethics Committee, Office of Research, Flinders University, South Australia, on (08)8201 5466, OR
- The Secretary, The Standing Committee on Ethics in Research Involving Humans (SCERH), Building 3D, Research Grants & Ethics Branch, Monash University, Victoria 3800, on tel (03) 9905 2052, fax (03) 9905 1420, or email scerh@adm.monash.edu.au



Community Pharmacist Consent Form

I, , give consent to my participation in the research project

TITLE: 'Primary health professional education - current models and barriers to participation'

In giving my consent I acknowledge that:

1. The project has been explained to me, and any questions I have about the project have been answered to my satisfaction;
2. I have read the Information Sheet and have been given the opportunity to consider the information and my involvement in the project
3. I am aware of the inconvenience associated with participation in the project;
4. I understand that I can withdraw from the study at any time, without affecting my relationships now or in the future with the researcher(s) from Monash University (Dr Phyllis Lau, Dr Jennifer Marriott, Mr Greg Duncan), or the researchers from Flinders University (Prof David Prideaux, Prof J Dunbar, Mr Kevin McNamara);
5. I understand that my involvement is strictly confidential and no information about me will be used by researchers in any way which reveals my identity.
6. By consenting to participate, I agree to take part in a teleconference that will be chaired by a focus group facilitator who will be employed to transcribe and analyse the meeting.

Signed: Date:

Name:

Appendix 2: Focus group outline



Community Pharmacists Focus Group Questions and Topics for Discussion

Teleconference will be conducted by a focus group facilitator. One or all of the researchers will be present to participate in discussion to ensure all key areas are covered.

PRIMARY HEALTH PROFESSIONAL EDUCATION: CURRENT MODELS AND BARRIERS TO PARTICIPATION

Facilitator Records

Facilitated by Ass Prof Ros Hurworth
Date 18 April 2005
Time 7pm AEST

Researcher(s) present Greg Duncan ?
 Phyllis Lau ?
 Kevin McNamara ?
 Jennifer Marriott ?

Model Question (Round Robin Introductions)

I am Ros Hurworth, the Director of the Centre for Program Evaluation at the University of Melbourne and have been working for the Centre, teaching and carrying out evaluations, for more than 25 years. Since completing various qualifications I have completed all sorts of continuing education in my field.

You have all been invited here to discuss issues relating to the delivery of continuing education. Everybody here has been invited because we are particularly interested in investigating the needs of (pick group):

Monday 18.4.05	Pharmacists who are reasonably experienced and have been qualified for more than 5 years	?
Wednesday 20.4.05	Consultant Pharmacists with specialist training needs such as home medication reviews	?
Thursday 21.4.05	Pharmacists who have recently graduated from university ie. qualified for 5 years or less	?
Friday 22.4.05	Pharmacists from rural or remote areas	?

It is with reference to these particular needs that we are conducting this focus group and we would like you to base your responses.

Now, please tell me very briefly, something about yourself.

(Please collect the following details, as applicable, about each participant prior to commencement.)

	Participant 1	Participant 2	Participant 3	Participant 4
State or Territory of Practice				
Remote, rural or urban practice?				
No. of years qualified?				
Hours per week involved in dispensing/ counselling				
Specialty practice or area of special interest (if applicable)?				
Accreditation/qualification requirements for specialty area (if applicable)?				

Introductory Question (Round Robin--all have to answer)

1. Now when I say the words 'Continuing Education for Pharmacists' what is the first idea or picture that springs to mind?

(There is no right or wrong answer --and response should be no more than a couple of words, a phrase and certainly no more than a sentence.)

Transition Questions--free for all

(Running on hopefully from model & introductory question)

2. a) Building on from what you said at the beginning, and from some of your pictures, can you describe more about the types of continuing education you have experienced? (prompt - this can be interactive or other things such as reading journals or using internet sites)
b) To what extent has continuing education, as you have just described, been worthwhile in contributing to your professional development and/or level of service in community pharmacy?
c) Do you know about any other types of continuing education programs that your colleagues or peers have undertaken recently?
d) How often/when would you take on some extra training?
3. What do you think about what's on offer at the moment in regards to:
a) relevancy
b) types of topics
c) the quality of current offerings
d) degree of difficulty?
4. To what extent are there issues personally in accessing appropriate CE for your practice?
(Prompts: distance, time, cost)
5. a) What, personally, do you still need to learn about?
b) What do you think are the education needs of community pharmacy generally? (prompt only if stuck—e.g. clinical updates, public health updates, pharmacy management, patient counselling, chronic disease management)
c) Can you please describe the practical outcomes you hope to achieve from undertaking continuing education?
6. How should training be delivered/taught? Why?
(Prompt-- what are the best ways of learning?/which do they prefer?—lectures, workshops, on-line, video, correspondence, PBL etc?)
7. a) What do you think about the current Pharmacy Board guidelines about continuing education? (e.g. currently you are encouraged to undertake 40 CPE points a year)
b) What do you think about the idea of developing a professional portfolio, whereby your professional development would be self-directed?

Key Questions

Drawing some of this together:

8. We talked earlier of some issues about access to CE for you personally. Now we know that there are many pharmacists right across the board who do not take up the opportunity to take part in CE training. Why do you think this is? What are the factors affecting the participation in CE?
9. How could we encourage more pharmacists to take part?
10. If you were left in charge to set up continuing education for pharmacists how would you do it?—what would you change?
 - a) How would you do it to make it most effective for people exactly like yourselves?—(consider timing, organization, delivery, content)
 - b) What would need to be considered for groups different from you? (Choose from rural, new graduates, consultants, experienced etc that are not in the group being interviewed)
11. Thinking of the world of pharmacy in the next few years, what would you advise the Pharmacy Board to incorporate into their guidelines about CE?

Appendix 3: Letter to CE provider interviewees



27 April 2005

Dear <name>,

Following your expression of interest, I am writing to formally seek your involvement in a research project that examines a number of issues relating to continuing education for pharmacists and other community-based health professionals. You have been approached for interview because of your involvement in the regulation or delivery of continuing education for a particular health profession. Involvement will require your participation in a one-hour interview with a member of our research team.

The project is funded by the Community Pharmacy Research Support Centre and is being undertaken by researchers at the Victorian College of Pharmacy and Flinders University. If you wish to contact us about any aspect of the project, please feel free to contact me at the Victorian College of Pharmacy (phone 03 9903 9526, email <phyllis.lau@vcp.monash.edu.au>).

Involvement in the project will give you a unique opportunity to inform the development of new policy and initiatives relating to continuing education for pharmacists in Australia. The project will provide an overview of current continuing education programs both in Australia and internationally, and will in particular seek to identify the educational needs of Australian pharmacists and barriers to participation in continuing education. However, we see this project as having relevance to a range of different health professionals, and the final report will be made publicly available.

The project has been cleared through the Flinders University Social and Behavioural Ethics Committee, and the Monash University Standing Committee on Ethics in Research Involving Humans (SCERH). I have enclosed an information sheet that describes the research project.

If you agree to be involved in the research project, please sign the attached consent form and return it by fax to Dr Phyllis Lau at 03 9903 9629. We will then call you to arrange a suitable interview time.

Being a part of this research project is entirely voluntary. If you do not want to participate, then please indicate this when we conduct a follow-up phone call. You may also change your mind and withdraw from the research project at any time.

I would like to stress that any information provided will not identify the patient, any health care professionals or even individual communities in either the report or any publications which may arise from the research. Equally, the information gathered will not be used for the purposes of any other project.

Yours sincerely

Dr Phyllis Lau
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Education Provider Information Sheet

RESEARCH STUDY INTO CONTINUING EDUCATION FOR PHARMACISTS

INFORMATION SHEET

You are invited to take part in a research study entitled 'Primary health professional education - current models and barriers to participation'. The broad objectives of this project are as follows:

- to understand the advantages and disadvantages of different models of continuing education
- to identify barriers to participation in educational activities by pharmacists.
- to make recommendations about the future delivery and organisation of continuing education

The study is being conducted by researchers from Flinders University based in Warrnambool (Mr Kevin McNamara, Prof James Dunbar) and Adelaide (Prof David Prideaux) and from Victorian College of Pharmacy, Monash University, in Melbourne (Mr Greg Duncan, Dr Jennifer Marriott). Dr Phyllis Lau from Monash University is the project manager.

If you agree to participate in this study, we will telephone you and arrange a time convenient for you to for a one hour interview. You will be one of a number of interviewees recruited from health-related organisations around Australia. The interviews will all have a common structure, based around the following key points:

- specific educational mandate of your organisation, and your own personal role within that organisation
- accreditation and reaccreditation by your organisation
- development and delivery of CE by your organisation
- value of CE
- accessing of CE
- assessment of CE

The interview should take about one hour to complete and will be audio-taped to allow for an accurate record. The audio-tape will be transcribed and analysed by a one of the researchers.

All aspects of the study, including results, will be strictly confidential and only the researchers named on the approved ethics applications will be able to access to information on participants except as required by law. A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report. Equally, data collected during this project will not be used for any other project.

Participation in this study is entirely voluntary: you are not obliged to participate and - if you do participate - you can withdraw at any time.

When you have read this information, Dr Phyllis Lau will discuss it with you and answer any questions you may have. If you would like to know more at any stage, please feel free to contact Phyllis by phone at (03) 9903 9526, or by email at <phyllis.lau@vcp.monash.edu.au>. This information sheet is for you to keep.

Any person with concerns or complaints about the conduct of this research study can contact either

- The Secretary, Social and Behavioural Research Ethics Committee, Office of Research, Flinders University, South Australia, on (08)8201 5466, OR
- The Secretary, The Standing Committee on Ethics in Research Involving Humans (SCERH), Building 3D, Research Grants & Ethics Branch, Monash University, Victoria 3800, on tel (03) 9905 2052, fax (03) 9905 1420, or email scerh@adm.monash.edu.au



Continuing Education Stakeholder Consent Form

I, , give consent to my participation in the research project

TITLE: 'Primary health professional education - current models and barriers to participation'

In giving my consent I acknowledge that:

1. The project has been explained to me, and any questions I have about the project have been answered to my satisfaction;
2. I have read the Information Sheet and have been given the opportunity to consider the information and my involvement in the project
3. I am aware of the inconvenience associated with participation in the project;
4. I understand that I can withdraw from the study at any time, without affecting my relationships now or in the future with the researcher(s) from Monash University (Dr Phyllis Lau, Dr Jennifer Marriott, Mr Greg Duncan), or the researchers from Flinders University (Prof David Prideaux, Prof J Dunbar, Mr Kevin McNamara);
5. I understand that my involvement is strictly confidential and no information about me will be used by researchers in any way which reveals my identity.
6. By consenting to participate, I agree to be interviewed by the researchers for this project, and understand that a third party may be employed to transcribe the interview.

Signed: Date:

Name:

Appendix 4: CE provider interview form



Thank you for agreeing to participate in this interview. We anticipate that it will take about 40 minutes to complete. As stated in the cover letter, your participation is entirely voluntary, and you are free to discontinue this interview or to decline response to any question at your own discretion.

Continuing education: survey of providers/regulators

Facilitator records:

Facilitated by: _____

Date: _____ Time: _____

Health profession subject to discussion: _____

Section A. Overview of Professional Context

This section asks about continuing education (CE) and the professional culture relating to CE within your profession.

1. Please describe the specific educational mandate of your organisation, and your own personal role within that organisation:

2. For professions other than pharmacy:

Is there a mandatory continuing education component for reaccreditation by your professional body? If so, please describe.

If so, do you think that these CE requirements for your profession reflect a good model for ensuring the development of better practice standards? Why/why not?

3. For pharmacy only:

Do you think that most community pharmacists value participation in CE?

Prompt: If so, please explain your reason for thinking this.

If not, why not, and what should be done to address this?

Section B. Developing Educational Services

This section asks your opinion about various issues which might be important in the planning of CE services.

4a. What do you consider to be the important areas of educational need for your profession (or the section of your profession served by your organisation)? Prompt -clinical updates, public health updates, management, mentor/ preceptorship schemes, patient counselling, chronic disease management etc.

4b. Does your profession/organisation (as appropriate) have a systematic means of planning all of its educational delivery needs? If so, please describe.

5. How does your profession (or professional subgroup) organise the delivery of CE to its members?

Prompt: Does it have specific programs for specific groups (e.g. rural, new graduates, specialists)?

How is it funded?

Is this CE structure the result of a specific strategy? If so, please describe.

6. Are you aware of specific groups within your profession that have difficulty in accessing sufficient amounts of relevant CE/ professional development?

Prompt: Too far to travel, excessive workload etc.

If so, please describe? What can be done to overcome this difficulty?

7. Describe the different modes of CE delivery used for your profession in Australia (e.g lectures, online, conferences, correspondence, workshops, PBL etc). What do you consider to be the merits and demerits of these different media?

8. Is there a method for formal accreditation of CE delivery services in your profession? Please describe. Prompt: Is this effective?

9. What do you think is the best way to assess a health professional's continuing education and professional development? Prompt: Portfolio, contact hours, examination etc?

10. Overall, what do you think are the most important considerations in planning a model of CE delivery for healthcare professionals?

Thank you for your time