Report of best practice: Development of an Ethics Manual as an integral component of undergraduate curriculum and application for graduates and practitioners

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Abstract

An ethics manual to support undergraduate lectures or practitioners in a healthcare environment has been developed. The manual was developed from course materials designed to ensure an integrated approach throughout a four year pharmacy program as teaching professionalism, as well as professional ethics, has become increasingly important and a focus of significant research in the health professions. The manual strengthens the ethics component taught as part of the pharmacy program. The aim is to instil a culture of ethical reasoning and decision making in students that will then become part of their professional practice. Key ethical principles are introduced at the commencement of the manual, applied initially to student issues and then extended to a variety of relevant situations such as DNA technology and research and professional practice, culminating in a series of case studies investigating a range of ethical dilemmas necessitating sound ethical reasoning. Changes in consumer expectations and generally more ready access to health related information make it critical for health professionals to have a sound grounding in ethical reasoning skills. Educators need to change their approach to developing learning materials to reflect these consumer changes and to enable ongoing support for practitioners.

Introduction

Ethical decisions and practice are entwined in the daily life of an individual, a student and a professional. It is often difficult to separate personal ethics from the ethics relevant to any particular profession but in today's increasingly litigious world (Shaul et al., 2005) it is crucial that ethical decisions are based on reflection and sound ethical reasoning, and that they are implemented.

The general community is increasingly better educated and has access to information as never before through popular magazines, television and the Internet. Individuals have the potential to be more assertive and are often more prepared to pursue matters when they perceive any inadequacies, or feel their personal and cultural expectations or preferences have not been acknowledged or respected. However, health professionals have a profound responsibility to the general public to be consistent, fair and equitable in the manner in which they practise their profession (as it is possible to discriminate positively as well as in the more usual negative sense of the word), and at the same time to abide by the legal requirements impacting on their professional practice.

International discussion of the impact and the extent of student plagiarism at tertiary institutions have prompted calls for educators to rethink curricula to address issues of plagiarism and academic cheating (Austin et al., 2005). A variety of initiatives, such as discussion of ethical dilemmas, have been instituted by educators — especially those teaching medicine — in an attempt to address these educational and professional issues (Elwell & Baillie, 2003). Further, it has been proposed that a longitudinal ethics curriculum, rather than isolated topics or subjects, is required for students to develop 'professional presence' or an understanding of those core values, rights and obligations of the profession (Yarborough et al., 2000). However, Davis (1992) believes that traditionally ethics discussions too often begin with the 'hard' cases without presentation of the basic principles prior to such discussions. It is the contention of both authors that this deficit has been avoided by an innovation in teaching discussed in this paper.

Both authors teach in the School of Biomedical Sciences (BMS) at Charles Sturt University (CSU), which offers a number of courses in the healthcare environment, such as Medical Laboratory Science and Pharmacy. From the very beginning of their programs through to graduation, students in the School have, for the last decade, had a basic study of ethics with the principles of ethics forming the core part of their discourse and orientation. These course materials have been developed in part as a tool to address the plagiarism issue on entering the University. By encouraging students to understand their responsibilities to themselves and to each other as students, the discussion surrounding cheating, collusion and plagiarism is introduced. It is essential to provide education to understand what plagiarism is and then, most importantly, to discuss the ethical issues arising when appropriate acknowledgement of another's intellectual property is not given. This then helps to explain why plagiarism must be avoided, rather than simply taking a punitive approach when students may not understand that what they are doing is unacceptable. The belief is that by better understanding the issues involved, there may be increased advocacy for more ethical behaviour from entry into the tertiary environment.

The materials provided to students throughout their courses are designed to enhance the students' awareness of ethics. They also provide the language required for meaningful ethical discussion through contextualisation and then application as they move through their course to discuss student responsibilities, genetics (as they apply to areas such as genetic testing), research, and, of course, professional ethical matters. The level of challenge and complexity increases throughout the program.

Over the last two decades the role of the pharmacist, in common with many other health professionals, has altered significantly with the focus shifting from one of supply to an increasing patient focus (Elwell & Baillie, 2003). Whilst this may benefit patients and enhance the practitioner–patient experience, it presents increased potential to encounter ethical dilemmas in practice. In addition, the continued challenges for healthcare professionals — for example, with technological changes — require that health professionals review not only their ability to recognise ethical dilemmas but to reflect on their responses to situations. Health professionals, not just students, need to refer to the framework of ethical principles to inform their decisions and actions, to ensure the continued integrity of their professions and to maintain the trust of their communities (Kass, 2001).

Recognising the benefit of addressing the need to provide ongoing support for the pharmacy profession through continuing education gave rise to the initiative to develop an ethics manual, based on the course materials on ethics already embedded in the CSU Pharmacy degree. This product is intended for use by the BMS undergraduate students as well as the new graduates and more experienced practitioners. It consolidates the ethics content within the undergraduate curriculum, plus provides additional materials that are structured in a similar fashion as presented above and in Table 1. A brief historical overview of the development of ethical reasoning with particular reference to health is included as a starting point.

The four key ethical principles are then introduced to provide the language and common understanding for discussion and reflection. The application of these principles follows, ranging from student responsibilities and ethical behaviour related to appropriate academic conduct, to research and professional ethics especially related to pharmacy. A series of case studies considering the issues present in a series of ethical dilemmas are presented. This final section is anticipated to be dynamic as changing laws, technology and individual experiences will continue to add further dimensions to this work. This recognises the need for ongoing education and support required by health professionals as they face new challenges.

Although this manual is intended to support the pharmacy students, graduates, and practising pharmacists, it is entirely relevant for the broader health professions. This demonstrates the approach taken by using the four ethics principles as the basis for the manual which can then be applied to different professions by use of specific case studies relevant to one profession. These principles are considered 'generic' ethics principles and lend themselves to broader application, hence the potential applicability of this manual beyond the pharmacy profession.

This paper reviews the pedagogy behind student learning and using pharmacy students as an example explores the approach to engaging students as advocates for ethical behaviour which extends to professional behaviour. It presents a best practice case for the innovation of this integrated approach to ethics and the development of an ethics manual with broad application beyond its use in a tertiary environment.

Pedagogy

Background to pharmacy education

It is generally accepted that each individual learns most effectively within meaningful contexts (Wills, 2003). Undergraduate pharmacy students are socialised into the norms and mores of the profession to provide a context for learning, and offered learning opportunities to acquire those skills and abilities necessary to practice as pharmacists.

Since pharmacy course offerings are accredited by the New Zealand and Australian Pharmacy Schools Course Accreditation Committee (NAPSAC), all utilise some combination of lectures, practical sessions and clinical placement (Whitehead et al., 2004). In the clinical placement, students are supervised by a registered pharmacist who mentors them in the ways of the profession and assists them to complete their assessment tasks related to the experience (Whitehead et al., 2004). This tradition of mentoring, and previously through the apprenticeship model, is very strong — even continuing professional development for currently registered pharmacists is offered in a face-to-face mode with 'an expert' presenter.

Presently in Australia, all pharmacy teaching is delivered on campus, and since the profession of pharmacy is one of the most computerised of the healthcare professions, students are exposed to a variety of computer programs and self-paced learning packages. Computer familiarity and the use of a variety of resources is important to students in their future in the profession, as pharmacists who utilise a variety of resources have been established to be more prone to spot developing trends and are more innovative (Naismith, 2004).

This has implications for profitability, sustainability and ability to meet consumer demands. Currently IT savvy pharmacists have a wider armamentarium of resources available to allow them to perform their supply role more efficiently (for example, overnight updates via the Internet) and also their patient education and chronic disease management roles (Naismith, 2004).

Pharmacy practitioners must be competent in providing pharmaceutical care. This requires developing expertise broadly across the practice areas in each and every student and graduate as outlined in the *Competency standards for pharmacists in Australia 2003*. Unlike many other graduates, pharmacy graduates do not become pharmacists at graduation but only after meeting the requirements of their pre-registration training year. These include 2000 hours of supervised practice, successful completion of the PGTC training course, possession of a senior first aid certificate, successful completion of the management module or equivalent plus successful completion of the Pharmacy Board of New South Wales written and oral reviews (please refer to Pharmaceutical Society of Australia (NSW) and Pharmacy Board of New South Wales). Registration is necessary to allow a pharmacist to practice independently, that is, unsupervised.

Professional knowledge

The question is, 'Why does one need or want knowledge in a profession such as pharmacy?'. In the paradigm of the professions, one critical factor is that a profession must have a body of systematic knowledge (DeAngelis, 2004). Further, this body of knowledge must be tended and extended by researchers and educators and passed on to the next generation to sustain the profession.

Since knowledge is required in this profession, then what sorts of knowledge are relevant to pharmacists and pharmacy? In everyday practice, the sort of knowledge that is needed is termed clinical expertise or clinical reasoning and this refers not merely to the possession of 'facts' but also the application of those facts to the care of a patient (Rothstein, 2004). This argues for a combination of theoretical and practical knowledge (Poikela, 2004). In teaching pharmacy, theoretical constructs such as self care and illness behaviour are incorporated with more practical knowledge such as childhood diseases. In addition, students are provided with opportunities to synthesise those aspects of knowledge into learning. For example, students are required to work with practising pharmacists in their clinical placements and observe and reflect on the pharmacists practice and then formulate their own protocol for dispensing and counselling. This integrates theoretical knowledge with practical knowledge and experiential knowledge. It is asserted that producing experiential knowledge ought to be the aim of education (Poikela, 2004), a position with which the authors concur.

Designing the Ethics Manual

Student backgrounds — diversity and learning styles

Except for their uniformly high grades in high school, CSU pharmacy students are a diverse group — there are students from metropolitan, rural and remote areas from almost every state and territory in Australia (Burton & Hemmings, 1998). In addition, these students are comprised of approximately 20% who are of non-traditional age, and may therefore have family responsibilities (Simpson & Wilkinson, 2002). Any of these students, whether of traditional or non-traditional age, may be from as wide variety of cultural backgrounds and religious practices as are current pharmacists (Simpson, 1996; Henderson, 2000; Hassell, 2000).

In a recent survey of all cohorts of graduates by the authors (Simpson & Angel, 2005), the following were established:

- gender distribution of our sample was approximately 70:30 (female: male)

- practice location was influenced by gender, with the vast majority of males choosing to practice in community pharmacy

- 84.5% of females and 50% of males identified their background as non-metropolitan

- 59.4% of females and 57.1% of males practise in non-metropolitan sites.

Several elements need to be considered when developing a curriculum for teaching young adults in a healthcare profession such as pharmacy. Firstly, it is necessary to consider the desired outcome by reviewing the range of practice activities undertaken by members of the profession, and the national competencies for pharmacists, which are intended to guide the teaching, training and registration of pharmacists. This is crucial to implementing teaching practices that close the theory-practice gap, which has been described as the difference between 'know-that' and 'know-how' (Chapman & Howkins, 2003).

Secondly, it is critical to consider the potential range of individual differences among learners (Angus, 1985; Dix & Hughes, 2004). This has at least two significant implications: the need to discover commonly accepted differences attributable to the learner's background and life experiences; and the need to consider the way that learners learn because differences in the ways that learners process different forms of information leads to different learning outcomes (Angus, 1985). A variety of learning styles are recognised and a comprehensive but concise typology is presented by Bolan (2003), which owes its theoretical roots to David Kolb's work (Kolb, 1984). Four styles are identified: divergers, assimilators, convergers and accommodators, and the differences between them are most marked in the learner's preference for observation, reflection, conceptualisation, and experimentation in the learning process (Bolan, 2003).

Learning objectives and outcomes

The authors reviewed the ethics course material currently in use within the CSU pharmacy curriculum, sought input from their colleagues within the School and then considered the following aspects in the development of the manual framework:

- content (generic, reflective of student development and discipline specific)

- educational strategy (learning styles and needs, depth of information required, intended outcomes and assessment)

- delivery strategy (capability, time available and isolation from support).

An extensive literature review was conducted by the authors to determine the domain of factors and issues relevant to delivering a comprehensive and integrated component of ethics education in the Bachelor of Pharmacy program. The curriculum goals were developed informed by this literature review. The specific goals were to:

1. Introduce participants to the key tenets of ethics, autonomy, beneficence, non-maleficence and justice.

2. Enhance participants' skills at identifying and appreciating the ethical dimensions of pharmacy practice.

3. Develop or augment participants' abilities to analyse ethical dilemmas as they arise in practice.

4. Boost participants' understanding of the interplay between personal and professional attitudes, values and behaviours or intended behaviours.

Content

Manual content and structure, therefore, included the key tenets of ethics, parameters of personal and professional ethics, application of ethical reasoning to research and a variety of ethical dilemmas. The key objective in the development of the manual was standardisation of the ethics material already in the pharmacy program, and to also make it a useful ongoing reference to students and applicable to delivery in a workshop/seminar mode to meet professionals' educational needs. Table 1 outlines the key topic areas addressed in the manual.

Table 1: Outline of the content of the Ethics Manual

Development and recognition of standards of human behaviour
Key tenets of ethics
Ethics and morality — as an individual
Ethics as a student
Plagiarism
Collusion, cheating
Research, the research process and research ethics
Paradigm of the professions
Professional standards and ethics
Complementary medicines — is it ethical? Is it legal?
The law
Emerging or existing issues — pseudoephedrine
Competence — continuing professional education and development
Ethical dilemmas — simple application
Ethical dilemmas — synthesis and interpretation required
When professional ethics and personal beliefs collide

The first nine topics essentially provide foundation information, whilst the remaining topics include practice-relevant case studies and demand greater application of ethical principles. The topic areas within the Ethics Manual are structured to reflect the need for the key tenets to introduce the framework for ethical reasoning, which are then applied to relevant subject areas as the student progresses through the course. The applications presented increased in complexity as the students proceed from the foundation to practice readiness. Although the authors have attempted to utilise 'real life' examples in the workbook and in teaching, they are mindful that graduates may still face situations not covered in the coursework (Kelly, 2002); however, a strength of the approach chosen is that students are encouraged to apply the key tenets to their ethical reasoning in unfamiliar situations. Ethical reasoning is concerned not so much with whether the decision made is 'right' or 'wrong' but rather on the process by which the decision is made (Latif, 2004). The manual includes an overview of one process of ethical decision making as outlined by Chaar (2006) to provide guidance.

Teaching strategies/Learning experiences — information processing theory

The next key element is a consideration of teaching and learning theories and the translation of those into the learning experiences offered within each topic. Although there are a number of models or theories of learning generally, within the healthcare professions the learning experiences of young adults are understood to be most favourable when individuals develop the capability for self-directed learning, utilise their life experiences to assist their learning, and when study material is relevant to, or at least approaches, 'real life' (Hewitt-Taylor, 2002) . This model of learning incorporates many principles that are congruent with the information processing theory (IPT) of learning, which will be discussed further.

Key tenets of this theory include considerations of engagement, attention span, short-term memory, long-term memory and cognitive processing of information as they relate to learning and the learning cycle. The sorts of activities that this theory asserts will encourage students to research and retain information, and to structure it so as to aid learning, include lectures, readings and written assignments, case study discussions, student presentations and examinations (Joyce & Showers, 1987).

Further, IPT offers a number of clues for teaching students which include:

- gaining the learner's attention

- presenting information in a clear, logically organised structure

- wherever possible tailoring the information to each cohort of learners

- assisting learners to recognise and identify key information

- supporting learners as they attempt to make links between new information and information they already know

- structuring repetition and review of material into the teaching-learning cycle

- using mnemonic aids and context to assist memory retrieval

- focusing on meaning or application (long-term memory) rather than memorisation for assessment (short-term memory).

IPT, therefore, offers guidance to educators when developing their learning plan and learning materials (Bolan, 2003). When developing and communicating learning objectives for teaching, IPT suggests that the objectives be clearly stated, and the articulation between theory and practice be clearly identified. Further, key concepts should be made apparent, and restated and developed in light of learners' experiences in the subject or subject content. IPT also guides the choice of activities, assessment, communication between learner and lecturer, and required and supplementary or remedial textbooks (Bolan, 2003). In the development of the professional practice suite of subjects, IPT provided insights into the structuring of the practical components — to engage learners immediately. A demonstration was provided by the subject coordinator, the learners attempted to emulate that and the lectures later that week outlined the theoretical underpinnings to a group who were already engaged and aware of the relevance of the content and its practical application.

IPT also guided the development of the introductory lecture in ethics, such that learners are aware of academic credentials — an insight from a consideration of IPT is that the person teaching has to be viewed as having something to offer (Dickerson, 2003), and so the authors' 'details' were then shared with learners. The authors have found that learners with experience in a healthcare environment are now more likely to share their own relevant experiences with the class cohort since this approach has been adopted. Clearly, curriculum development is often guided and influenced by academic resources. The fact that one of the authors is Chair of the University's Ethics in Human Research Committee and, therefore, is an advocate for raising awareness of ethics in all its dimensions to students, and the other author is an experienced pharmacy practitioner, has certainly informed and facilitated this integrated approach to ethics in courses offered from this academic unit.

How then does ethics education fit in to such theoretical requirements for pharmacy students? When one considers the profession and the place of pharmacy within communities, that is, either hospital or community pharmacies, CSU graduates will find that the importance of ethics becomes clear and cannot be seen merely as an 'add on', but rather as integral to the program itself. Part of the complexity of this profession is that students need to be proficient in research and pharmaceutical care that requires empathetic communication skills, as well as business sense. The development of a professional ethos needs to take these different dimensions into account.

Socialisation of students in the educational setting is often considered to be outside of the formal classroom experience, and as a result does not have the desired outcomes (Goodman-Snikoff, 2003).

Individuals will have their own understanding of ethics/ethical behaviour that reflects their personal background/upbringing, experience and training. One of the constants of ethical discussion is the lack of a simple 'black and white' answer in most circumstances. Principles of ethical reasoning need to be applied to each situation, unless that situation is commonly encountered. It is necessary for students and professionals to be provided with a framework of bioethics to help the recognition of ethical and moral dilemmas. There are numerous principles and moral rules used for this purpose. This ethics manual presents the four ethical principles as presented by Beauchamp and Childress (1983). For the authors' purposes, these principles, once understood, can be applied across a range of contexts with increasing confidence as a framework for ethical discussion. They provide some common language and raise awareness of the reasoning behind ethical reasoning and debate. This allows participants to more fully engage in ethical reasoning, making decisions for behaviour and responses based on principles and facts, not merely on personal beliefs and emotion. This provides a more objective grounding to one's approach and ensures ongoing trust with the public (Kass, 2001).

Resources

A workbook has been developed as part of the Ethics Manual which is intended for dual use; by undergraduates and those who have graduated and are practising. Each major topic includes 3–5 multiple choice questions with the answers provided separately to allow learners to assess their grasp of the material, and to return to the topic if further reading and application is required. Case studies have been adapted or developed to assist learners to understand and apply ethical principles. The case studies have been garnered from a range of sources, for example, from real experiences from members of the profession (included with permission and careful presentation) and from current relevant literature.

Appreciating the different levels of knowledge and learning, case studies are graded to reflect the degree of synthesis and interconnection anticipated (based on direct application of the principles — basic; or more involved reasoning — difficult). This provides reassurance to younger undergraduate students who may otherwise feel overwhelmed and intimidated by the materials, and also serves to prompt those practising pharmacists who experience difficulty with the scenarios to consult some additional resource materials (identified in the materials) to enhance their professional competence. This is supplemented by a coordinator's or facilitator's guide that includes additional material to spark discussion, and to ensure a consistent delivery of the significance and implication of the materials.

Assessment

In a tertiary environment, the authors evaluate students' progress through the manual by dedicated assessment embedded in specific subjects. The type of assessment is structured so as not to grade their opinions per se, but rather to assess their growing maturity in using the key tenets in justifying their ethical reasoning. This encourages a broader consideration of issues identified by students and allows them to demonstrate a growing awareness and competence to articulate and communicate their understanding of balancing issues raised by the four ethical principles applied to professional situations. It is stressed to the students that they will be assessed on their ability to justify their conclusions by considered reference to, and use of, ethics principles — unless, of course, there are legal implications with the outcome of their thinking. This may appear to be an artificial or forced approach to working through case studies, but the objective is for such consideration to become part of their professional thinking and practice.

Implementation of the Ethics Manual

As with the process of mentoring for pharmacy preceptors (Simpson et al., 2006), there is little in the literature related to how ethics is best taught to pharmacy students and then provided as ongoing support to experienced pharmacists. For a quarter of a century or so, the pharmacy profession in Australia and overseas has undergone a paradigm shift from a supply-centred focus to a patient-centred focus wherein the pharmacist forms a therapeutic alliance with the patient to achieve optimal medication outcomes (Latif, 2004). For the last decade in the School of Biomedical Sciences, there has been an ethics theme running through individual subjects, but these were subject specific and lacked the coherence of a consolidated approach.

The Ethics Manual and associated workbooks deliberately incorporate repeated references to the four key ethical principles (Beauchamp & Childress, 1983) so that spaced repetition (Simpson, 2004) and increasing personal awareness in the ability to apply these principles to increasingly complex ethical situations enhances their confidence in less certain circumstances. The manual uses the ethical dilemma to focus students' awareness on the differences that may result depending on whether personal or professional ethical standards are used. There is recognition that often it may be impossible to separate the personal from the professional, but by providing students with a common framework, it increases the potential for a more balanced awareness and fairer outcomes (Sporrong et al., 2006).

The workbook is not intended to be used in isolation, especially with undergraduate students as it is well recognised that moral distress may result (Sporrong et al., 2006) when students are unable to effectively reconcile the tension between conflicting values within the individual or even within a group. The preface outlines the responsibilities of the presenter so that there is mindfulness of the separation of personal ethical and moral values from academic outcomes. If the facilitator intends to adopt the role of provocateur, it would be wise to advise the group openly of their intended stance. The role of educators is to ensure that the case studies or ethical dilemmas are discussed in an environment of trust and confidentiality to encourage the open flow of discussion respectful of differences in values.

Discussion and conclusions

Over the last two decades, new practice patterns and consumer concerns about professional practice and ethical decision making have led a variety of healthcare academics to include some 'formal' training in ethics in their teaching (Latif, 2004). This has been an area of particular concern to the authors as Latif (2004) has established that in the United States, pharmacy students perform only in the middle level of reasoning as expressed by mean scores on the Defining Issues Test (DIT) — a psychometric instrument that assesses an individual's moral or ethical reasoning skills. By contrast the other health professional students Latif considered — students in medicine, physical therapy, nursing, dentistry and veterinary science — all scored in the highest level on the DIT. Therefore, a major goal for most, if not all, pharmacy academics is to produce graduates who are not only skilled in professional knowledge, but also have been socialised into the expected standards of behaviour relevant to that profession.

This article has described the authors' attempt to develop an ethics manual as a model of best practice to address issues of cheating and plagiarism as well as poor understanding of professional ethics among students (Hardigan & Ranelli, 2006; Austin et al., 2005), and to support current practitioners as changing work environments produce new ethical dilemmas. The described curriculum argues that ethics is about dialogue. It is not about telling students or practitioners how to think, but rather it aims to provide the tools to facilitate dialogue and deliberation to bring balance driven by objectivity rather than subjectivity (Jennings, 2001). Contrary to Latif (2001; 2004), who speculates that pharmacy students lack exposure to complex social and moral issues, the manual deliberately addresses this and encourages and requires students to engage in increasingly complex case studies with inherent ethical dilemmas.

The content confirms the frequent overlap of the key principles, which results in the need for application of these principles, and acknowledges different priorities of these principles in different situations. In this way, the ethical and legal tension inherent in most ethical dilemmas is established. It is important to present such complex real life case studies that demonstrate the reality of overlapping principles.

The Ethics Manual also addresses the strategies by which students reason, some of which may be both professional and ethical and others which may be of a less desirable nature. For example, Ginsburg et al. (2003) established in a series of video-taped vignettes that although the participating students often referred to the key ethical principles to make their decisions, they also utilised other principles which may compromise a patient's health outcome, such as inappropriate deference or allegiance to one's 'team'. Although this manual starts with raising students' awareness and provides an historical context to aid understanding that is identified as important (Callahan & Jennings, 2002; Kass, 2001; Turrens, 2005), it utilises repetition to throw the focus many times onto apparently similar but unrelated cases or onto apparently dissimilar but related issues. This repetition and contextualisation aids in achieving deep rather than surface learning, and an appreciation of continued learning.

The section in the manual entitled 'When professional ethics and personal beliefs collide' also explicitly explores an individual's beliefs and their understanding of professional standards and encourages participants to construct an ethical reasoning strategy to deal not only with the current situation, but also future dilemmas (Simpson, 2004).

The utility of the manual for continuing professional development (CPD) is an important attribute as registering authorities in Australia and elsewhere are increasingly requiring proof of such activities, often as part of a professional portfolio, to establish competence to remain a registered practitioner, that is, one who is legally entitled to practice. Previous studies (for example, Hull & Rutter, 2003) have determined that there is considerable variation among pharmacists in their participation in continuing professional development, with locum practitioners and owner pharmacists most likely not to have participated in CPD. Both groups of pharmacists are busy professionals who may not necessarily be able to readily access the predominantly face-to-face CPD programs provided by professional associations — it is hoped that the more interactive approach as utilised in this ethics manual may attract these individuals for the benefit of themselves and their patients.

Being aware that educational initiatives need to be evaluated (Akabayashi et al., 2004; Ginsburg et al., 2003), this product will be evaluated by educational designers, learners and professional colleagues. The experience and feedback gained from development and implementation of this manual may assist other healthcare academics as they introduce or update the ethics education in their curricula.

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