

# Bioethics: a challenge and an opportunity for hospital pharmacists

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## ABSTRACT

**Objectives** Traditionally, pharmacy ethics in Europe has held an insignificant place in the scheme of pharmaceutical education. We embraced the idea that bioethics should be an integral part of a pharmacist's education and professional practice, especially in hospital pharmacy where the concept of 'pharmaceutical care' should be revitalised to strengthen the broad-based and patient-oriented responsibilities of the clinical pharmacist.

**Methods** We decided to structure a bioethics course tailored to pharmacists who are specialising in hospital pharmacy. We first created a training network partnership between a university and a research hospital to integrate classroom teaching with skill-specific practical experience. Our course pilot project introduces, in two of the four years of the national specialty programme, general topics and practical bioethical issues.

**Results** A pilot course on ethics for the School of Specialisation in Hospital Pharmacy began at the Padua University in 2014. In February 2017 we contacted the same students again, asking them further questions about their experience. Several students asked to examine more cases and to deal with the few arguments that questioned them on an ethical level. On the whole, through the comments of trainees, the needs of those who are facing an unfamiliar subject, which is perceived as important, emerge.

**Conclusion** Even if we are aware that this is a pilot project and requires more data, dissemination of this experience into a wider network will help us to define an effective educational pathway in collaboration with other Specialty Schools of Hospital Pharmacy.

## INTRODUCTION

The UNESCO Chair in Bioethics is currently engaged in preparing an innovative bioethics core curriculum<sup>1</sup> to be offered in medical schools worldwide and suggests devoting a considerable number of hours to the study of the subject. They have identified the emerging need for the introduction of teaching medical ethics as a consequence of several social and scientific change processes that we believe are also ongoing in the hospital pharmacist's practice:

- ▶ Nowadays, healthcare consumers demand to be healthy and also, when they experience severe disease, they want a good quality of life (eg, palliative care, simultaneous care). Patients expect an approach which combines expertise and effectiveness, along with empathy and reliability.
- ▶ Healthcare providers have been detaching

themselves from traditional concepts of idealistic medicine to adopt a contractual and customer paradigm (where materialism and pragmatism can dilute or extinguish compassion and dedication).<sup>2</sup>

- ▶ Increasing medical technology has raised several dilemmas (eg, new procreation techniques and medical genetics, euthanasia/end of life, intensive care challenges, applied biotechnology, gender attribution) while causing previous ethical resolutions to become obsolete (eg, definition of death, family composition).
- ▶ Increasing monetary constraints create a substantial dilemma in resource allocation in the everyday practice of medicine.
- ▶ Scientific research and experimentation require constant consideration in order to guarantee the respect for ethical norms, mainly through the statements of ethics committees.

Traditionally, pharmacy ethics in Europe has held a rather insignificant place in the scheme of pharmaceutical education. Foreseeing the need for change, Miederhoff *et al* in 1980 asserted that "... pharmacy students will be trained to become their own ethics experts through the application of critical ethical thinking".<sup>3</sup> However, in 2008, Cooper *et al* performed a survey among community pharmacists which showed the difficulties in eliciting pharmacists' examples and reasoning on ethical problems; they found a sort of 'ethical passivity'.<sup>4</sup>

Indeed, in our direct experience in Italy, academic courses on bioethics for pharmacists or pharmacy students are sparse and mainly organised as single seminars.

Other European experiences show a similar scenario. For instance, in 2012, an internal review of the MPharm degree programme at Queen's University Belfast (QUB) revealed that ethics was not being directly taught to second-year pharmacy students whereas first-year students are taught the GPhC Code of Conduct for pharmacy students and its relation to codes of ethics for pharmacists; in the third and fourth years, pharmacy students learn about ethical issues during experiential placements and in other compulsory elements of the programme.<sup>5</sup> Moreover, according to a study on the inclusion of ethics studies in pharmacy school curriculum, Žufková and colleagues<sup>6</sup> found that only a minimal amount of ethics was included in pharmacy studies.<sup>6</sup> The authors analysed 31 web pages of Pharmacy Faculties in the European Union (EU) and found that ethics is taught in 45% of study programmes and is mostly part of a master programme syllabus (Czech Republic, Estonia and Portugal) or a bachelor programme



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## Original article

(Slovakia); they did not find a full study plan in 13% of the analysed universities.

To counteract this general ‘passivity’ we embraced the idea that bioethics should be an integral part of a pharmacist’s education and professional practice, especially in hospital pharmacy where the concept of ‘pharmaceutical care’<sup>7</sup> should be revitalised to strengthen the broad-based and patient-oriented responsibilities of the clinical pharmacist.

Recently, in Italy, the Inter-Ministerial Decree number 68 of 4 February 2015 approved the reorganisation of the Medical, Surgical and Clinical Services Area Specialisation Schools, and a Commission of National Experts, delegated to define courses and academic credits, chose bioethics as a ‘key topic’ for the Italian Hospital Pharmacy specialisation programme. This choice determines, in our experience, a challenging path but also a great opportunity.

## METHODS

Following the intent of the above cited Italian legislative decree and taking into account the previous considerations, we decided to structure a bioethics course, tailored to pharmacists who are specialising in hospital pharmacy. We first created a training network partnership between a university and a research hospital to integrate classroom teaching with skill-specific practical experience.

Our course pilot project introduces, in two of the four years of the national specialty programme, general topics and practical bioethical issues, as described in [table 1](#).

We imagined bioethics as a ‘red thread’ to help pharmacists specialising in hospital pharmacy to identify ethical issues that emerge in the other vocational subjects of the specialty course. In practice, we chose to explore the ethical problems connected with every other subject that is taught, promoting the perception of ethics as a response to real needs in professional practice. We introduced basic bioethical principles (autonomy, beneficence, distributive justice, respect for the person, truthfulness and honesty) using arguments on which hospital pharmacists feel confident such as the management of health resources and the role of Research Ethics Committees, where the pharmacist is a compulsory component.

The third year course deals with the main area of general teaching already identified as main subjects: oncology, pain medications, medical devices and Health Technology Assessment. We also decided to introduce an advanced course on

clinical bioethics, despite the limited impact of the pharmacist on clinical decisions, taking into account the multidisciplinary team approach, which is frequently part of the daily hospital practice.

The use of real cases is the foundation for teaching: the majority of the chosen cases were from Clinical Ethics Committees of the training network (brought in by physicians and nurses), but we also focused on international examples directly related to pharmacy practice, taken from ‘Case studies in Pharmacy Ethics’ by Veatch and Haddad.<sup>18</sup> We identified examples which, in our view, were applicable to our Mediterranean European context. Additional working material was taken from an Italian Narrative Medicine Network ([www.viverlatutta.it](http://www.viverlatutta.it)). Some relevant case histories, in particular of cancer patients, were selected to provide better insight into the emotional and spiritual needs of patients.

## RESULTS

A pilot course on ethics for the School of Specialisation in Hospital Pharmacy began at the Padua University in 2014. An evaluation questionnaire, divided into two parts (assessment of the lesson content and evaluation of teaching) was administered to 15 students who attended the School in April 2016 (nine first-year and six third-year students; the latter completed the entire module of 2 years). Overall, feedback from students was positive (average total 8.25 out of 10).

Because this questionnaire is a generic gauge used for all specialisation courses, in February 2017 we decided to contact the same students again, asking them the following questions about their experience: (1) What topics which were covered in the course do you find useful in your professional practice? (2) What topics which were not covered in the course could be useful for your professional practice? (3) Do you consider the proposed approach to ethical problems helpful? Do you have any suggestions to improve the course?

Several students were very interested in ethical principles. The following examples show how they feel about the general issue:

(Student 1) ... because I had no training in bioethics before the course of specialisation, for me the introductory part was very helpful: the definition, the three principles (autonomy, beneficence and justice) and the development of historical matter ...

(Student 2) It was very interesting to learn about and study more in-depth ethical principles (autonomy, beneficence and justice). The proposed reflections (regardless of individual cases) were useful to

Table 1 Course content

Year	Topics	Contents
1	Introduction to bioethics <sup>8,9</sup>	What is bioethics? Environmental ethics vs biomedical ethics, the Encyclopaedia of Bioethics, examples of controversial ethical issues emerging from new situations and possibilities brought about by advances in biology and medicine
1	Research and Hospital Ethics Committees <sup>10,11</sup>	Definition and role; introduction to principles, examples of trial evaluations
1	Fair resource allocation <sup>12,13</sup>	Rationing in ethical perspective; personal and professional responsibility; equity, disease-mongering and pharmaceutical responsibility. Discussing rationing at the bedside, trainees were confronted with a concrete exercise to understand the difficulty in prioritising the allocation of scarce financial resources
1	Pharmacy ethics <sup>7,14</sup>	Ethical dimension of pharmaceutical care; moral compromise and professional integrity; the national Code of Ethics for Pharmacists; the role of pharmaceutical care in the Oncology Department
3	Introduction to clinical bioethics <sup>15</sup>	How to deal with it? Meaning and methods for ethical consultation, cases discussion
3	Bioethics in oncology	Oncology and frailty, ethics of care (attentiveness, responsibility, competence, responsiveness), ‘beneficence in trust’ (citing Pellegrino and Thomasma <sup>16</sup> ), virtue ethics, cases discussion
3	End of life and palliative care	The concept of ‘total pain’; simultaneous care as ethical proposal, cases discussion.
3	The Ethical evaluation in Health Technology Assessment (HTA) report	A methodology of ethical analysis of HTA <sup>17</sup> ; patients’, caregivers’ and citizens’ involvement in the process of HTA

understand that the application of these principles is not simple, not linear and depends on many variables; not least the weight which each of us differently assigns to these principles ...

Specifically, they recalled the discussion of cases:

... I thought that the approach of the second part of the course was very interesting and useful; we analysed several practical cases with a specific method. It's true that, as pharmacists, we are rarely faced with ethical questions concerning a particular patient (in my internship this does not happen) but, in any case, I think that, as healthcare professionals, we must be sensitive to ethical issues ...

In other examples, they underlined that the value of beneficence compared with the cost of treatment is a tricky question:

... in my practice I once discussed with a medical oncologist the treatment for an older patient, debating the benefit to the patient compared with the cost of therapy. I think that, often in oncology, the price of therapy is very high, especially the cost of new drugs with little prolongation of life and with considerable side effects. I think that it must therefore be assessed case by case, if the benefit to the patient prevails over the burden of cost in therapy ...

Many students identified palliative care and allocation of resources as helpful topics in their current professional practice. Moreover, the choice of imagining bioethics as a 'red thread' was a winner:

... the reflections on ethics of care helped me to see palliative care in a broader context ...

Furthermore, students explored ethical complexity and acknowledged that real-life clinical scenarios can present complicated ethical dilemmas:

(Student 1) ... The field of bioethics is very broad, in a few hours we covered many topics, but it would be useful to deepen discussion on current topics that are often present in the media, among which: euthanasia (often seen as assisted suicide, respect for the wishes of the patient to die 'of his choice'), biotechnology: the relationship between science/technology and ethical progress, therapeutic cloning (embryonic stem cells), appropriate medical care in the terminal phase, informed consent (basically how it works, what you need to know, as must be managed), priority in the choices (the problem of the high cost of certain therapies), equity in treatment (eg, in oncology)

(Student 2) ... I would go deeper into the scope of the Hospital Ethics Committee (which I was able to understand only marginally during my internship) through the discussion of real cases (I am particularly interested in parenteral nutrition, frail elderly, disabled)

Some students also had emotional reactions (in stark contrast with the 'ethical passivity' described by Cooper *et al*):

(Student 1) ... despite understanding that bioethics often does not give us a clear answer to clinical problems and every healthcare professional has his/her point of view, we have to decide case by case how to behave - it is important to discuss it, and it is important that there is a team that will help to find solutions and to make informed choices. Many people do not even take into consideration bioethics when thinking about a problem. I think not only we professionals (doctors, pharmacists, nurses) should be more informed and read more in-depth into the matter, but also bioethics should concern everyone because it can happen to each of us to be in a difficult situation in life...

(Student 2) The reflections in the classroom made me realise that there are many different points of view and that every opinion has its own rationale ...

Several students asked to examine more cases (an increasing clinical need?) and to deal with the few arguments that questioned them on an ethical level (eg, artificial nutrition, oncology).

On the whole, through the comments of trainees, the needs of those who are facing an unfamiliar subject, which is perceived as important, emerge.

## DISCUSSION AND CONCLUSIONS

Even if we are aware that this is a pilot project and requires more data, dissemination of this experience into a wider network will help us to define an effective educational pathway in collaboration with other Specialty Schools of Hospital Pharmacy. Our future plan is to investigate how and where these bioethics courses have been activated in Schools of Hospital Pharmacy throughout Italy and in other European countries.

We look forward to an improved curriculum, with the active involvement of the national networks of Specialisation in Hospital Pharmacy, which reflects the real need for integration of ethics into daily practice and increases interest and respect of the values involved in pharmaceutical care delivery as well as raising awareness of the clinical role of hospital pharmacists.

### What this paper adds?

#### What is already known on this subject?

- ▶ There have been several published experiences in medical bioethics and bioethics teaching for doctors and nurses.
- ▶ Theories on the relationship between bioethics and pharmacy, mainly dealing with pharmaceutical care, are well known.
- ▶ In the published works to date, a bioethics training pathway tailored to the needs of hospital pharmacists has not been clearly described.

#### What this study adds?

- ▶ A pilot study is described, following a reasoned and specific bioethics training course carried out for the School of Hospital Pharmacy, structured into a university teaching and a hospital training partnership.
- ▶ The paper describes the study plan and comments derived from the feedback of pharmacists specialising in hospital pharmacy and sets the parameters for a larger quantitative study which would involve students from all over Italy.

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