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Ethics and Social Science in Medical Education: A view from Chile

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Ethics and Social Science in Medical Education: A view from Chile

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Categories: Curriculum Planning, Professionalism/Ethics, Teaching and Learning

Abstract

Background

We used a participatory action approach to explore the teaching of ethics and social science in medical schools in Chile. Here we report on themes and challenges that emerged from our discussions, and discuss commonalities and contrasts that may provide insight in the international context of medical education.

Methods

We held a one-day workshop, convened by the present authors from the University Diego Portales and the University of Edinburgh, with 24 participants representing seven Chilean universities,. A combination of small-group elicitation activities and short presentations was used to explore participants' thinking and experiences in relation to ethics and social science teaching in medical education.

Results

Participants reported a range of issues encountered in teaching ethics and social science in the medical curriculum, many of which are common in the wider international context of medical education. Systemic factors related to the structure of health care and wider socio-economic issues were also seen as important in shaping the medical education landscape, with implications for the teaching of social science and ethics.

Conclusions

The workshop provided insights into the teaching of ethics and social and behavioural sciences in Chilean medical schools, and highlighted some key challenges. Thinking about how to address these may lead to useful strategies for improving this aspect of medical education more generally.

Introduction: ethics and social science in the medical curriculum

It is now widely accepted that ethics is an essential component of medical education. The emergence of ethics as a key part of health care professional training and its recognition as a core element of medical curricula can be traced back to the last few decades of the 20th century (Eckles et al., 2005), when "concerns about the personal attributes and humanistic sensitivity of doctors" (Miles et al., 1989) and the role of the medical training process in shaping future health professionals prompted increased attention to these aspects of medical education (Fox et al., 1995; Goldie, 2000). By the 1990s, many professional medical organisations were recommending the inclusion of ethics training as part of the undergraduate medical curriculum, and many medical schools had made formal moves to incorporate ethics education in some way (Fulford et al., 1997; Goldie, 2000; Lehmann et al., 2004).

For example in the US, the American Association of Medical Colleges (AAMC) and the Liaison Committee on Medical Education (LCME) specified standards for medical schools that included a requirement for ethics teaching, though at a general level (Lakhan et al., 2009; Lehmann et al., 2004; Saltzburg, 2014). The UK's General Medical Council recommendations for undergraduate medical training (General Medical Council, 1993) included provision for medical ethics as part of the core curriculum (Goldie, 2000). A consensus statement published in the *Journal of Medical Ethics* ("Teaching medical ethics and law within medical education: a model for the UK core curriculum," 1998) provided further detailed recommendations as to content for a suggested UK ethics curriculum; likewise the Association of Teachers of Ethics and Law in Australia and New Zealand (ATEAM) has issued a statement on a medical ethics core curriculum (Braunack-Mayer et al., 2001).

Similarly, awareness of the broader social determinants of health has led to the recognition that social and behavioural sciences (SBS) ought also to be incorporated into medical education (AAMC, 2011; Frenk et al., 2010). Though formal measures to include SBS teaching are somewhat more recent (Harden et al., 2016), the turn towards a wider understanding of what is needed for a complete medical formation has encompassed an appreciation of SBS as well as ethics: the LCME statement of 1985, for example, stipulated the teaching of "ethical, behavioral, and socioeconomic subjects pertinent to medicine" (Lakhan et al., 2009). Early moves towards a more 'humanistic' approach to medical education drew on social science as well as medical humanities and ethics (Fox et al., 1995); since then, it is probably fair to say that medical ethics has received more attention as a pedagogical specialism and developed more rapidly, but the potential to link ethics and SBS in the educational context remains.

While the need for ethics and SBS teaching in medicine is thus widely recognized, there is less in the way of consensus or substantive recommendations as to how this need should be addressed. While some countries have specifications as to ethics curriculum content, as noted above, there is still no standard model for methods and integration (Lakhan et al., 2009). Surveys of medical schools in the US (DuBois & Burkemper, 2002; Fox et al., 1995; Lehmann et al., 2004) have found that although virtually all programmes include medical ethics in some form, there is considerable variation in what is taught, how, when and by whom, as well as how much ethics teaching is provided. Even less evidence is available regarding the extent to which SBS is included in the curriculum and what is taught, though again significant variability in methods and integration seems to be a theme of the current landscape (Harden et al., 2016).

In Latin American countries, the formal recognition and incorporation of ethics, or bioethics, into medical

curricula as a key part of health professional training has followed a similar trajectory (Cabrera, 2008; Correa, 2008). Again, however, surveys have found that the extent of provision is variable and the relevance and effectiveness of ethics teaching in achieving intended learning outcomes and competencies can be difficult to demonstrate (Cabrera, 2008; Cárdenas Díaz & Sogi Uematsu, 2013).

Sharing and comparing experiences of medical educators teaching ethics and SBS across different institutions and countries may thus provide insight into common challenges and an opportunity to reflect on teaching practices from a new angle, with the aim of continuing to improve practice in this field.

Medical education in Chile

Medical training in Chile involves seven years of training: two pre-clinical, three clinical and two intern years. A national accreditation programme (Comisión Nacional de Acreditación, CNA-Chile) sets standards for universities providing training at undergraduate and postgraduate level.

The CNA criteria for accreditation of medical schools (Perfil Profesional y Criterios para la Acreditación de Carreras de Medicina) include an entire set of standards related to ethical formation, specifying that programmes should lead to the development of doctors with the following capacities:

•   To be educated on values.

•   To be aware of the ethical and moral responsibility of medical care and actions, as well as of their implications.

•   Adjust their behaviour to universally accepted ethical standards, and accept and abide the codes of ethics of the medical order

•   To have a humanistic and integral view of human beings

•   To be respectful of their patients, colleagues and members of the health team

•   Recognize the rights of the patients, especially regarding confidentiality and informed consent.

•   To be free of prejudices, and show respect for cultural and social differences and different lifestyles, without imposing their own beliefs and prejudices

•   To always show respect for life

The criteria for cognitive formation also include a number of objectives related to SBS and ethics, that programmes should produce graduates with a knowledge and understanding of (amongst others):

•   The agents and causes of disease: biological, physical, chemical, environmental, social and cultural [italics added];

•   The social, cultural and environmental determinants of disease;

•   The economic repercussions of disease for individuals and communities;

•   The principles of health promotion and disease prevention;

- Ethical and legal aspects relevant to medical practice

As can be seen, the CNA criteria are principally outcome-directed, specifying focal attributes of graduates, rather than how these should be achieved. Although Chilean medical schools have committed to fulfil these standards, there are thus no common grounds related to the recommended curricular content, the way bioethics and SBS teaching is integrated within the curriculum and which teaching and learning methods should be used to pursue these common goals.

Methods

We held a one-day workshop in Dec 2016 with invited participants from seven leading medical universities in Santiago , including faculty members involved in medical education and recent graduates of medical programmes. The aim was to share common experiences and to explore, through short presentations and a series of group activities, the challenges for teaching ethics and social science in medical education, including considerations of curricular content and integration; methods of teaching and learning and assessment; and topics of particular relevance in medical education and practice in Chile.

Participants from five different medical schools (Universidad de Chile, Pontificia Universidad Católica de Chile, Universidad del Desarrollo, Universidad Andrés Bello and Universidad Diego Portales) presented a brief summary of their curricular content regarding bioethics and social sciences issues. The elicitation activities comprised a one-hour "problem tree" exercise, in which groups of 4-6 participants were asked to identify 'roots' (causes) and 'branches' (consequences) of problems in the teaching of ethics and social science; two 45-minute group brainstorming sessions on content and integration; and a one-hour session to develop ideas around specific themes of interest identified by the participants.

Ethics in medical education: overview of 5 Chilean medical schools

Curricular content: In general, most medical schools exhibited similar curricular content, although the strategies to include this were different. Some schools had separate bioethics courses and others had them integrated within the clinical courses.

Integration: An important issue that was discussed related to the enormous distance that was perceived, mainly by students, between what is taught and what is perceived as the "clinical model" that their tutors are offering to them. Some schools have intended to resolve this by promoting bioethical training within their faculty members, expecting that they will share common beliefs and attitudes. Other schools, mainly those without their own clinical campus, revealed some difficulties with this respect. Students perceived that what was being taught was different to what they saw in the real clinical scenario.

Teaching methods: Participants reported a broad range of teaching methods, from classical lectures, small group discussion, debates, use of videos or movies to address some specific ethical topics (for example, abortion, end of life and euthanasia, research ethics, human rights). Some schools also used interviews with trained actors to exemplify issued related to informed consent and confidentiality. There is a hierarchical level of discussion, from theory to principles, rules and finally to procedures.

Assessment: Different assessment strategies were used, depending on the teaching method. For topics related to ethical foundations and philosophy, short questions regarding a specific lecture was the preferred method of evaluation. Some schools used simulated patients (with actors), including a short clinical scenario that could be

evaluated in an OSCE (objective standardized clinical examination); also an essay on specific topics. For clinical ethics, the preferred assessment tool was oral examination with different clinical scenarios, at the end of the internship period; short clinical vignettes in a written exam. Similarly, some schools had implemented rubrics regarding ethical issues to be used when assessing the internship period.

Problems Identified

The problem tree exercise identified a number of issues commonly encountered by participants in teaching ethics and SBS in medical schools, as summarized in Table 1.

Table 1: Issues in teaching ethics and SBS in medical schools, identified by participants through problem tree exercise.

Issue	Comments
Negative attitudes from students and faculty	Participants reported hearing phrases (in relation to ethics / SBS teaching) such as "not part of medicine", "not part of medical education", "something beyond my life [experience]".
Over-full curriculum	Finding space within the curriculum to include ethics and SBS was a common difficulty. This was seen as related partly to the "technification" of medicine and a curricular focus on technology rather than patient-centred medicine.
Undervaluation of ethics and SBS	Ethics and SBS are often given low credit weighting; especially in the competitive environment of medical education, this induces students to pay little attention to these topics. Participants also related this to the focus on "high-tech" medicine, in education and practice.
Lack of shared language	The difference in disciplinary approaches and language between ethics / SBS and other, more science-focused areas was seen as a barrier to effective teaching.
Lack of educators	This referred both to the shortage of available teachers trained in ethics and social sciences, and of teaching resources devoted to this within medical schools.
Lack of standard models	The absence of standards related to content and effective teaching methodologies was felt to be a problem.
Difficulty of evaluation	This was an issue both in terms of how to assess learning outcomes in the short-term, and how to evaluate the educational impact of ethics / SBS teaching
Heterogeneous content	Ethics and SBS cover a broad range of topics and different disciplinary perspectives, which can pose a challenge for teaching.

Participants also cited a range of broader factors that they felt affected the teaching of ethics and social science in medicine, going beyond internal constraints faced by medical schools, to the structure of the health system and the role of medicine in society. These included the commercialization and marketization of medical practice; changing expectations from patients who increasingly demand treatments and diagnoses; the rise of "consumer medicine"; a perceived shift from medicine as a vocation to medicine as a service; the devaluation of primary

care and general practice versus high-tech specialisms; and what was seen as a sometimes excessive proceduralisation of ethics in practice.

Intended outcomes and key topics for ethics and SBS teaching

Through the problem tree exercise, participants also identified goals and objectives for the teaching of ethics and SBS to medical students. These included:

- Greater 'awareness'
- Integration of social scientific and ethical understandings into one's own life
- Valuing human beings and human dignity
- Sharing common languages with other disciplines
- Scope for integration and collaboration
- Effects on structure of health system
- Choosing how and where to work

For the final session of the workshop, we asked participants to nominate a topic that they considered of particular relevance in medical education and practice in Chile. They then developed a case-based approach that included the methods and strategies for teaching and assessment based on two topics selected from these.

The topics nominated were:

- Ethical issues related to professionalism:
    - Plagiarism
    - Professionalism in primary care
    - Ethical issues related to medical students
    - Faculty assessment by students
    - Conflict of interest of the medical profession
- Adolescent pregnancy and sexual health
- Ethical and religious issues in medical teaching
- Limitation of therapeutic effort in paediatrics.
- Ethical and social issues in chronic illness in children
- Ethical and social issues related to diagnostic doubts
- The right to make use of new technologies to have healthy children

The two topics chosen for further in-depth discussion were professionalism, and adolescent pregnancy. Notes from these discussions are included in Appendix 1.

Discussion: common challenges, insights and strategies

The issues identified and discussed by our participants reflect, perhaps unsurprisingly, common challenges that have been previously noted with respect to ethics education, in Latin America as well as more generally. Correa (2008) for example, notes "not only scientific but scientistic mindset", "economic interests" and "negative attitudes toward philosophy and clinical ethics" as issues confronting medical educators: why spend time on ethics, especially when students feel under such pressure with respect to 'hard' clinical subjects? Likewise, systemic issues with medical practice, the role of the medical professional and health care delivery have been recognized as challenges for medical ethics, leading to what has been termed the "mercantilization" and

dehumanization of medicine (Cabrera, 2008).

While the effects of these more general factors on the medical education landscape must be acknowledged, it is difficult to identify direct strategies that medical educators might employ to address these broader social issues: although education is of course a part of cultural change, such a shift can occur only indirectly and gradually. In this section, therefore, our discussion focuses on a number of specific issues raised by our workshop participants that may point towards more immediate 'next steps' for the development of ethics and SBS teaching in medical schools.

Developing standard models for ethics and social science teaching

As mentioned, the lack of a standard model for teaching delivery and variability in provision has been noted, especially with respect to ethics. The concerns raised by our workshop participants in this regard likewise suggest that more attention to this area is requited.

In thinking about setting more specific standards or guidelines for content, method and integration, one question is whether it is in fact desirable to have a more prescriptive model with respect to these aspects of ethics and SBS teaching. Retaining at least some degree of flexibility would seem desirable in order to accommodate different structures of programmes amongst medical schools, and even different individual teaching styles. Nevertheless, given the concerns expressed over lack of standardisation regarding content, methods and integration, it would seem some firmer guidance on these might be welcome. This might be a gap to be addressed by future work in this area.

Of course, any recommendations for standard curricular content or teaching methodologies will need to ensure that the specified contents and methods are well-designed to meet the goals and requirements of ethics and SBS education for medical students. More in-depth research is required to define these objectives and to explore in what ways guidelines or other standard models could be of use in helping medical educators to achieve them. While existing examples of pedagogical practice and statements on curricular content drawn from the international context will be helpful to develop this, it may also be useful to consider factors more specific to the national or regional context in order to determine what might be most appropriate to include in a Chilean model of medical ethics education. There remains scope for further work with medical schools and professional associations towards this end.

Professionalism and the hidden curriculum

Key amongst the drivers for ethics teaching were issues related to professionalism and ethics in medical education, which frequently manifested as ethical concerns raised by students in relation to their training. These included, for example, discomfort with behavior of peers and of senior doctors; students witnessing conduct about which they had ethical doubts; and poor role modelling from educators and senior colleagues. Particularly notable was the perceived significance of these concerns: in the exercise to select key topics for further discussion, almost half the participants nominated issues related to professionalism.

Again, this was in accordance both with our anecdotal experiences as medical educators in the UK, and with research that has found issues associated with professionalism and behaviour to be among the most frequent ethical concerns reported by medical students (Bissonette et al., 1995; Christakis & Feudtner, 1993; Fard et al., 2010; Hicks et al., 2001).

Given the significance of this issue, it is interesting to compare the emphasis (or lack thereof) placed on professionalism in the ethical curriculum. For example, in the recommendations for the UK core curriculum on ethics ("Teaching medical ethics and law within medical education: a model for the UK core curriculum," 1998), issues related to professionalism feature principally in just one section ('Vulnerabilities created by the duties of doctors and medical students') of a detailed curriculum that specifies twelve substantive topic areas for ethics education. The core curriculum for Australasian medical schools proposed by ATEAM pays more attention to professionalism, noting the importance of attitudinal development and of role modeling, and specifying that "[a]wareness and discussion of professional values, attitudes and behaviours should be fostered among students and their teaching staff" (Braunack-Mayer et al., 2001). Professionalism is included as one of the "core knowledge" topics, albeit with little detail.

At least in terms of topic coverage, therefore, it seems that there is disproportionately little attention devoted to issues of professionalism in the usual ethics curriculum in comparison to the frequency with which ethical problems are encountered in this area during clinical training and practice. One idea that arose from our workshop discussions was to include some issues related to professionalism (such as responsibility and honesty) in every course, including the basic courses of the first years. More specific aspects of this topic were discussed in some detail during the thematic session; a summary of these discussions is included in Appendix 1.

Formal curriculum coverage, however, is only one aspect of the problem. The relative significance of this issue in discussions with medical educators and graduates highlights the problem of what has been dubbed the "hidden curriculum" of medicine (Hafferty & Franks, 1994; Lempp & Seale, 2004): the values and habitual practices that are imparted to students through the training environment and the behaviour of educators, rather than through formal instruction directed at developing knowledge and understanding. Amongst our participants, the recent medical graduates described witnessing first-hand negative changes in attitudes and values from the first year to the final year of their undergraduate training. Their descriptions of this phenomenon map closely to identified effects of the 'hidden curriculum' such as "loss of idealism" and "change in ethical integrity"(Lempp & Seale, 2004).

These reported experiences resonate with more widespread concerns raised about the effect of medical education on ethical behaviour, including "indications that medical school may serve to *inhibit* students' moral growth" (Lehmann et al., 2004) and the experiences of students surveyed, who "felt that their ethical principles had been seriously eroded or had disappeared" (Patenaude et al., 2003). An important consideration for further development of medical ethics education, in Chile and elsewhere, must therefore be not only attention to professionalism as part of the curriculum, but to the learning environment and the implicit values that are being conveyed to students, not only in ethics-focused courses but throughout all elements of training.

Ethics education in clinical years and beyond

Many participants considered as an important challenge the fact that there is no control and little information or standardisation regarding what is being taught at each clinical campus, particularly during the internship period. This was also the period of training during which particular concerns arose most frequently with respect to the issues of professionalism and behaviour mentioned above.

As a strategy to address the linked issues of professionalism in medical ethics education and the need for ethical development during clinical training, it was proposed that students themselves might act as agents of change,

promoting ethical values with special consideration to patients' dignity. Another idea to improve the perceived gap in ethical formation between faculties at the clinical campuses was that medical schools should contribute ethical teaching activities (such as courses or seminars) to be delivered in these settings.

Another problem reported by participants was that it was easier to teach ethical theories in a lecture style scenario than having ethical issues taught at the bedside. Students are confronted with very concrete ethical dilemmas during their internships, but usually they do not have faculty members available with whom to discuss these ethical problems.

Although there was no clear solution to this issue, there were some suggestions to promote ethical formation for clinicians at the different clinical campuses. First, the internship period should include some elements aimed at ongoing ethical development, such as lectures, seminars, or case discussions, ideally at the clinical campus, so that both students and faculty members could attend. In addition, if ethical awareness is considered genuinely important, it should be included in academic evaluations at the intern level.

From theory to practice

A persistent and recognized problem in the teaching of ethics is the gap between what is formally taught in the classroom and the skills, knowledge and abilities that are required to deal with the ethical dimensions of medical practice. In Chile as in other countries, aspects of content relating to ethical theory and methodology are often expanded to the detriment of clinical bioethics teaching (Correa, 2008).

This relates directly to the issue noted by participants, that students felt a disconnect between the teaching of ethics and their experiences in practice. In terms of methodologies, this suggests the importance of case-based elements of teaching and the development of practice-focused learning.

One strategy proposed by participants to address this was to promote discussion of real cases presented by the students themselves; one of the schools represented amongst our participants already employs this method with Year 4 medical students. Although the students presented a whole range of clinical problems, with respect to ethical aspects, they tended to concentrate on issues related to patient autonomy and full disclosure of the illness. In practice, clinicians usually talk to patients' relatives rather than to the same patient; the students perceived this particular feature as an important difference with respect to what they are taught during classroom-based bioethical courses.

On the other hand, in our experience at Edinburgh, the opposite complaint is sometimes raised by students in the early stages of training: in pre-clinical years, students may find it difficult to relate to case-based scenarios given their lack of clinical experience, and may prefer more theory-focused teaching. (Of course, what students prefer at this stage is not necessarily an indication of what will be most effective in achieving the outcome-focused objectives of ethics teaching across undergraduate training and beyond; showing that specific teaching interventions have a direct effect on improving professional ethical practice remains a conundrum for medical ethics education in general). Clearly there is also a need to tailor the content and presentation of material to ensure it is both relevant, and perceived as such, by students at differing levels of experience.

Concluding reflections

Through the presentations and discussions at this workshop, we gained an overview of ethics and SBS teaching provision amongst some of the major Chilean medical universities, and a snapshot of some of the challenges currently facing educators in this area.

One might expect that the experience of medical educators and students with respect to the need for ethics and social science education would be similar across different countries, and indeed, our discussions revealed many common challenges faced by medical educators in Chile and other countries alike.

At the same time, in thinking about future possibilities to develop this area of medical education, we recognise the need for an approach that is appropriately sensitive to different cultural and social environments (Correa, 2008). The demands faced by doctors in practice and the required ethical knowledge and sensitivities to deal with these will vary in some respects between countries, due to the operation of different social factors, the structure of the health care system, and the state of health care with respect to various technologies. To give just one example, the profile of genetic medicine in Chile, where genetic counselling is still in its infancy, is likely to be quite different to that in the UK, where genetic counselling programmes are more established; health care professionals will therefore face different challenges in practice from one country to the other, and require different ethical knowledge to deal with these.

The insights gained from sharing our experiences collectively and exploring similarities and differences across medical schools in Chile, and in comparison to Edinburgh, have enabled us also to reflect on our current educational practice. In particular, considerations regarding the teaching environment and the integration and presentation of material at different stages, especially in clinical years and beyond, suggest areas for further improvement.

Finally, we note that our discussions during the workshop focused much more on ethics teaching than on SBS. This may have been due to the specific experiences and roles of the workshop participants, but might also reflect the fact that medical ethics education is more firmly established and recognised as a subject of pedagogical inquiry than the teaching of SBS, at present. An open question for educators everywhere is to what extent these two areas should, or can effectively, be linked.

Take Home Messages

- Our discussions revealed many common challenges faced by medical educators in Chile and Scotland.

- Despite these commonalities, we recognise the need for an approach to teaching ethics and social science in medicine that is appropriately sensitive to different cultural and social environments.

- While ethics and social science share some common ground, they are distinct areas of study. Medical educators should consider to what extent these two areas should, or can effectively, be linked.

Notes On Contributors

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Acknowledgements

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Appendices

Appendix 1: Summary of topic-focused discussion

Professionalism and related issues

Regarding professionalism, the following was discussed:

- There was a need to define the competencies related to professionalism.
- It was impossible to teach professionalism as a single lecture. It was perceived that there should be a continuum from initial years up to the very end, increasing the requirements. Professionalism is something impossible to be taught in theory. It should be taught by "role modelling".
- Critical incident management could be one useful approach. The mentor should learn how to deal with this and give appropriate feedback
- The use of actors, playing a small vignette that exhibits non-professional attitude was considered also a useful approach.
- From the student perspective, it was perceived important that school manager or directors consider the comments and feedback that students give at the end of each course, so that they can intervene to change faculty that are consistently perceived as having non-professional attitudes, either towards the students or the patients.
- Most of the participants, from different medical schools, were aware that some faculty members mistreat students and also presented gender biased. These attitudes were more frequently observed in some specialities. Once again it was pointed out the importance of having more interaction within the clinical

encounter, to help promote a culture of good student-teacher relationship.

- Regarding student´s attitudes, there was important concerned about academic honesty. Plagiarism, cheating during the exams were some frequent attitudes that were difficult to deal with. Additionally, some faculty members failed to produce new evaluation material, repeating each year the same questions; the students had the whole set of questions that are used. This was a two-face problem: responsibility of the students and also of the faculty members. School directors and directors of the Medical Education Offices could have an important role to deal with this problem.
- Finally, other issues related to attitudes that were perceived as anti professional within medical students were alcohol and drug consumption during the clinical wards. This misconduct was perceived as something really serious. Each school should have specific and clear regulations to help deal with these type of problems.

Adolescent pregnancy: topic discussion

Our approach to discussing adolescent pregnancy took a different form, as we considered it as an example of a topic particularly relevant in Chile on which linked ethics and SBS teaching could be developed. We discussed a range of content issues that could be introduced in stages throughout the medical degree, and attempted to define overall learning objectives in relation to this topic area.

We identified the following key thematic content that we thought important to include in teaching ethics and SBS on this topic:

- Definitions, for example: 'adolescent'; 'unwanted pregnancy'
- Characteristics of adolescent pregnancy as a health care phenomenon in the local context: prevalence; incidence; distribution; epidemiology; comparison with other countries.
- Social factors relevant to cases: education; cultural context; economic factors and consequences; family and wider social environment; ethnicity; geography; gender dynamic
- Access; availability; health programmes and services
- Adolescent pregnancy as a health issue:
  - biomedical effects, physiology, health consequences
  - social consequences (for example on future opportunities, work, education)
- Aspects of related health programmes:
  - health and sexual education
  - prevention
  - management
- Legal and ethical issues
  - Competence and capacity to decide
    - concept of 'mature minor'
  - Autonomy
  - Reproductive rights
  - Abortion and contraception
  - Conscientious objection
  - Legal implications of adolescent pregnancy (e.g., sexual offences against minors)
  - The concept of health and disease in relation to reproduction (for example, is pregnancy a disease? Does this change in relation to adolescent and unwanted pregnancy? How do we understand the

role of the health professional in relation to reproduction, contraception and fertility treatment?)

Possible learning objectives were framed in terms of capacities, that students should be capable of the following:

- To identify key features of adolescent pregnancy as a health phenomenon and understand its social determinants
- To identify ethical conflicts arising with respect to adolescent pregnancy
- To analyse critically the phenomenon of adolescent pregnancy and its consequences: biomedical and social, for individuals and at a population level
- To design health strategies and interventions aimed at the management of adolescent pregnancy
- To have the clinical and professional skills and appropriate integrated knowledge to manage cases of adolescent pregnancy

Declaration of Interest

The author has declared that there are no conflicts of interest.