

9. Gazdag G, Bitter I, Ungvari GS, Baran B. Electroconvulsive therapy turns 75. *Br J Psychiatry*. 2009;194:387–8. doi:10.1192/bjp.bp.108.06254
10. Fink M. Convulsive therapy: a review of the first 55 years. *J Affect Disord*. 2001 Mar;63(1-3):1–15.
11. Greenberg RM, Kellner CH. Electroconvulsive therapy: a selected review. *Am J Geriatr Psychiatry*. 2005 Apr;13(4):268–81.
12. Eranti SV, McLoughlin DM. Electroconvulsive therapy – state of the art. *Br J Psychiatry*. 2003 Jan;182:8–9.
13. Loo CK, Schweitzer I, Pratt C. Recent advances in optimizing electroconvulsive therapy. *Aust NZ J Psychiatry*. 2006 Aug;40(8):632–8.
14. Sharma V. The effect of electroconvulsive therapy on suicide risk in patients with mood disorders. *Can J Psychiatry*. 2001 Oct;46(8):704–9.
15. Chanpattana W, Kramer BA. Electroconvulsive therapy practice in Thailand. *J ECT*. 2004 June;20(2):94–8.
16. Minhas HM, Ostroff R. Practice of electroconvulsive therapy in a tertiary care hospital in Pakistan. *J ECT*. 2012 Mar;28(1):7–9. doi: 10.1097/YCT.0b013e31822d795a
17. Selis MA, Kauye F, Leentjens AF. The practice of electroconvulsive therapy in Malawi. *J ECT*. 2008 June;24(2):137–40.
18. World Health Organization. WHO Resource Book on Mental Health, Human Rights and Legislation. Geneva: World Health Organization; 2005.
19. Abou-Saleh MT, Christodoulou G. The WPA position statement on the ethics of the use of unmodified electroconvulsive therapy. *Arab J Psychiatry*. 2009;20:57–65.
20. Greenhalgh J, Knight C, Hind D, Beverley C, Walters S. Clinical and cost-effectiveness of electroconvulsive therapy for depressive illness, schizophrenia, catatonia and mania: systematic reviews and economic modelling studies. *Health Tech Assess*. 2005 Mar;9(9):1–156, iii–iv.
21. Rosebush PI, Mazurek MF. Catatonia and its treatment. *Schizophr Bull*. 2010 Mar;36(2):239–42. doi: 10.1093/schbul/sbp141
22. Tharyan P, Adams CE. Electroconvulsive therapy for schizophrenia. *Cochrane Database Syst Rev*. 2005 Apr 18;(2):CD000076.
23. Tharyan P, Saju PJ, Datta S, John JK, Kuruvilla K. Physical morbidity with unmodified ECT – a decade of experience. *Indian J Psychiatry*. 1993 Oct;35(4):211–14.
24. Pathare S. Beyond ECT: priorities in mental health care in India. *Issues Med Ethics*. 2003 Jan–Mar;11(1):11–12.
25. Dowman J, Patel A, Rajput K. Electroconvulsive therapy: attitudes and misconceptions. *J ECT*. 2005 June;21(2):84–7.
26. Andrade C, Agarwal AK, Reddy MV. The practice of ECT in India: II. The practical administration of ECT. *Indian J Psychiatry*. 1993 Apr;35(2):81–6.
27. Gangadhar BN, Janakiramaiah N. Physical morbidity and unmodified ECT. *Indian J Psychiatry*. 1994 Apr;36(2):97.
28. Andrade C. Unmodified ECT: a note of caution. *Indian J Psychiatry*. 1995 Apr;37(2):99–100.
29. Andrade C, Rele K, Sutharshan R, Shah N. Musculoskeletal morbidity with unmodified ECT may be less than earlier believed. *Indian J Psychiatry*. 2000 Apr;42(2):156–62.
30. Ghaziuddin N, Kutcher SP, Knapp P, Bernet W, Arnold V, Beitchman J, Benson RS, Bukstein O, Kinlan J, McClellan J, Rue D, Shaw JA, Stock S, Kroeger Ptakowski K; Work Group on Quality Issues; AACAP. Practice parameter for use of electroconvulsive therapy with adolescents. *J Am Acad Child Adolesc Psychiatry*. 2004 Dec;43(12):1521–39.
31. Read J, Bentall RP. The effectiveness of electroconvulsive therapy: a literature review. *Epidemiol Psychiatr Soc*. 2010 Oct–Dec;19(4):333–47.
32. Hiremani RM, Thirthalli J, Tharayil BS, Gangadhar BN. Double-blind randomized controlled study comparing short-term efficacy of bifrontal and bitemporal electroconvulsive therapy in acute mania. *Bipolar Disord*. 2008 Sep;10(6):701–7. doi: 10.1111/j.1399-5618.2008.00608.x
33. Praharaj SK, Ram D, Arora M. Efficacy of high frequency (rapid) suprathreshold repetitive transcranial magnetic stimulation of right prefrontal cortex in bipolar mania: a randomized sham controlled study. *J Affect Disord*. 2009 Oct;117(3):146–50. doi: 10.1016/j.jad.2008.12.020

## A degree in bioethics: an “introspective” analysis from Pakistan

AAMIR M JAFAREY

Centre of Biomedical Ethics and Culture, Sindh Institute of Urology and Transplantation, 5th floor, Dewan Farooq Medical Complex, SIUT New Building, off MA Jinnah Road, Karachi 74200 PAKISTAN e-mail: aamirjafarey@gmail.com

### Abstract

The success of degree-level bioethics programmes, a recent development across the world, is generally evaluated on the basis of their quantifiable impact; for instance, the number of publications graduates produce. The author conducted a study of Pakistani graduates who had pursued a higher qualification in bioethics, and on the basis of the respondents' written and verbal narratives, this paper presents an analysis of their perceptions of the internal impact of bioethics degree programmes. Using these narratives, the paper also analyses the reactions of their colleagues to their new qualification.

The respondents reported significant changes in their thinking and actions following their education in bioethics. They exhibited more empathy towards their patients and research subjects, and became better “listeners”. They also reported changes in practices, the most significant being the discontinuation of the linkages they had established with pharmaceutical firms to seek support, because of concerns related to conflict of interest. Although some respondents believed that their new qualification was generally welcomed by their colleagues, who considered them as

ethics resources, others reported that their colleagues harboured unreasonable and impractical expectations from them, and that these were impossible to fulfil. They also got the feeling of being ostracised and regarded as “ethics watchdogs”. Whereas the internalisation of bioethics is an encouraging finding in this cohort, the mixed reception that bioethics and those involved in it received indicates a lack of understanding of the field and is a source of concern.

### Introduction

The emergence of formal bioethics education programmes which offer graduate-level education in bioethics and award diplomas, degrees and fellowships is a relatively new phenomenon around the world. The aims and objectives listed on the websites of prominent programmes offering such education generally mention the acquisition of scholarly and procedural skills related to bioethics as the main goal. These programmes, which use different pedagogies, ranging from entirely full-time to part-time, fully online or a hybrid mix of strategies, are geared towards equipping their alumni to teach, conduct research and provide bioethics-related services.

The accomplishment of these goals would be considered a reflection of their success.<sup>i</sup> The question of whether or not formal education in bioethics also brings about internal moral shifts within students has, however, received little attention.

The view that the teaching of ethics can have a positive effect on human character has been in existence since the times of the Greek philosophers. Socrates equated virtue with knowledge, implying that knowledge would make a person virtuous (1). In *Nicomachean Ethics*, Aristotle endorsed the need for an education in ethics to develop virtuous conduct, but at the same time, emphasised the role of habituation. According to him, bad habits may nullify an education in virtue, and he thus advocated legislation to check bad habits to help develop a truly virtuous society (2). Modern philosophers have endorsed the Aristotelian view (3).

Education in bioethics is a new area in Pakistan, and its origin and initial measurable impact have been recorded (4). However, no assessment has been made of the effects that the experience may have had on the behaviour and conduct of the students. Similarly, there is no analysis of others' perceptions of this developing field and those involved in it.

The author undertook an empirical study of people from Pakistan who had pursued a higher qualification in bioethics, the aim being to explore various aspects of their experience. This paper focuses on the impact of education in bioethics on the respondents and attempts to determine whether they felt that there had been any changes in their thinking and behaviour. The paper also analyses the reactions of their colleagues to their qualification, as reported by the respondents. To the best of the author's knowledge, this kind of an "introspection-based" review of graduates from bioethics programmes has not been undertaken in the past.

## Methodology

This study, conducted from August 2010 to July 2011, focused on individuals who had obtained graduate-level education in bioethics from Pakistani or foreign institutions by mid-2010. Lists of students from the two Pakistan-based institutions offering degree programmes in bioethics were used to draw up the list of potential participants. A list of foreign-qualified bioethics graduates was generated through personal contacts with key people from the bioethics community. The data were generated with the help of a questionnaire and in-depth interviews. The questionnaires, seeking written responses, were e-mailed to all the consenting participants and were followed up with reminder e-mails and phone calls. Purposive, proportionate sampling was used to select 10 participants for in-depth interviews. Using a template, the author conducted all the interviews personally. The interviews were conducted either face-to-face or on the phone if the participant was out of town. All the interviews were recorded with the permission of the respondent, and were transcribed and analysed by the author. Ethical clearance was obtained for the study from the ethics review committee of the author's institution. The results reflect the written responses to the questionnaire and the

narratives from the interviews.

## Results

In August 2010, a total of 93 people from Pakistan (including the author) had completed, or were enrolled in, formal bioethics education programmes. Of these, 33 had not completed their training and were excluded from the analysis. Of the remaining 60, demographic information was available for 41, who were included in this analysis.

Of the 41 participants, 20 were men and 21 women. Eighteen were 25–40 years of age, another 18 were in the age bracket of 41–50 years, and 5 were over 51 years old. There was an almost equal distribution of respondents from public and private institutions, 18 coming from private and 22 from public sector institutions. Forty respondents belonged to various healthcare-related fields (31 physicians, 7 medical researchers, one paramedic and one dentist), while one was a lawyer.

The participants' responses have been analysed under two major themes, the first relating to internal changes following the programme and the second focusing on the reactions of the respondents' colleagues and co-workers to their newly acquired qualification.

## Changes within

The respondents felt that their education in bioethics had led to fundamental internal changes, affecting the manner in which they approached and thought about issues. Becoming more reflective and insightful was a change reported by many. One respondent stated that the most significant impact of the bioethics training on her was that it "opened up new ways of looking at things" and made her more open to "seeing the other side." She said that she was "more tuned in" than before. Another said that the experience "broadened my thought process. Now I analyse all issues and listen to both sides of the argument." He added, "I do things differently now. [Bioethics education] gave me a different language and a new way of thinking." Another said, "I have matured a lot as a human being because of bioethics [education]."

Describing the impact, one person said, "I certainly feel more educated and confident, and yet humble." He felt he was now "more pragmatic and logical in handling ethical issues" about which he used to be "emotional" and "opinionated" in the past. On a similar note, another stated, "My approach, which used to be fixed and rigid, has changed. I have now become more compliant and open to others' opinions." Another respondent, a physician, said "I think my attitude as a human being has also changed as a result of my bioethics education. I have started analysing and rationalising the approach of my colleagues and people around me . . . I have started to change myself and practise what I have learnt."

Several claimed to have become more effective communicators. They said they were more polite and sympathetic in their interactions with patients now, and made a conscious effort to understand the patients' perspective. "I now try and understand

their concerns, respect their [the patients'] opinion and involve them in decision-making," said one respondent. A physician reported that his "commanding or paternalistic attitude has now changed."

Discussing the impact of the bioethics education on himself, one of the respondents said it had helped him "professionally since now the patients really trust me more because I communicate with them in greater detail." Another researcher said, "I used to treat my patients as customers and my research subjects as experimental opportunities," but this had now changed. One of the participants said that bioethics education had made her a better researcher since she now made it a point to obtain proper informed consent, being mindful of the essential elements of bioethics. "My research is more ethical now," she commented.

One of the respondents began to see himself as a "flag-bearer" of ethics after he obtained his diploma. He felt he had to be "more careful" about his conduct since he was being "observed" by his colleagues. Even those who did not think they had been unethical in the past now felt they had to maintain a higher standard of ethical conduct. One respondent said, "In my professional practice, I have become conscious of many ethical issues which were somehow never apparent to me in the past." Others considered the education in bioethics an "eye-opener".

The study revealed a prominent shift in the respondents' previous practices with respect to the pharmaceutical industry and their relationship with the industry. Referring to the common phenomenon in Pakistan of healthcare professionals accepting gifts and giveaways from pharmaceutical companies, several respondents said that they had given up this practice after becoming aware of the issues of conflict of interest inherent in such interactions. Describing this change, one of the respondents, a dentist, said, "Now I have to buy all the medicine [for my personal use] and even toothpaste. I cannot even receive mouthwash samples and other minor gifts [any more] from drug reps."

A researcher who manages a laboratory said, "I used to routinely ask for donations for my lab from equipment vendors. I have now stopped this entirely. I don't even accept small things like calendars and diaries any more which I used to in the past." Another physician with a hospital-based practice said, "I have stopped using even the smallest things like ballpoints with pharmaceutical companies' logos on them."

The respondents noted that incorporating such changes in their thinking and conduct was not always easy. For many, education in bioethics appeared to have led to a heightened sense of responsibility in terms of displaying moral conduct in their professional as well as private lives. "Life was easier before I did bioethics" was a commonly expressed sentiment. One participant said, "I have grown an extra conscience of some sort," adding that she felt the need to be more responsible and extra-cautious. "My ethics qualification has made life more challenging for me," said another. A respondent working in a leadership position said, "It [bioethics qualification] has created

a lot of hurdles for me. Now I think very carefully before I do anything." Another respondent claimed that education in ethics had made his life more taxing since he could not do anything that might be considered remotely unethical.

### Through the eyes of others

Many reported that the changes in their thinking and behaviour were noticed and commented upon by others around them. One said, "My colleagues say that I have become humble. There has been a lot of change [in me]." Others reported that their colleagues and co-workers had acknowledged their bioethics education with a positive attitude. One of the respondents said, "I have a lot of recognition because of bioethics. People recognise me for it, and respect me and listen to my opinion." Another noted that there had been a difference in her colleagues' attitude towards her and they were now more willing to raise issues for open discussion. "It is good to break the silence and talk about things," she said.

The respondents' education in bioethics had led their colleagues to have a higher level of expectations from them. "Perhaps these people [with bioethics education] may be able to do something good for us," was a commonly reported expectation. They were being seen as an "ethics resource" by their colleagues in institutions in which no such resources existed. Others were expected by their institutions to formally create relevant ethics committees or to join those that already existed. Some were asked to initiate ethics education of various levels at their institutions. The respondents who were able to utilise their newly acquired skills meaningfully in their institutions reported feeling a sense of satisfaction.

However, the respondents also mentioned the unrealistic expectations of their colleagues, who now wanted them to "provide solutions for all problems". Not only was their opinion sought on ethical issues, but they were also expected to "sort out" administrative matters and differences in opinion. They were approached even for "fixing obviously wrong [institutional] practices". Commenting on such requests, a respondent said that it was "...as if we are now supposed to clean up other people's messes." One of the respondents felt that this was due to a general lack of administrative systems to tackle such issues, while another was of the view that it reflected the level of awareness of bioethics and its utility at her institution. Another respondent feared that such unrealistic expectations could lead to disillusionment with bioethics.

Some respondents believed that not all of their colleagues viewed them positively and said they felt ostracised by their co-workers. Some reported that they were referred to as the "ethics police" or the "custodians of ethics" even though in their opinion, their behaviour did not justify this. Others believed that their fellow workers were avoiding them for fear that they would "start to find faults" with their work. One respondent linked the co-workers' negative attitude to a perceived sense of threat from those with a degree in ethics. Others felt that the underlying reason was a generally prevalent misunderstanding regarding bioethics. "A label of 'bioethicist' is firmly pasted on

you [by colleagues], and with it comes the mistaken notion of an individual who has or can deliver 'superior moral judgment.' This, I believe, is absurd and is a misconception." In his opinion, the elevation of people with an education in bioethics to a "higher moral pedestal" reflects a poor understanding of the field, and could be detrimental to the new discipline.

## Discussion

Education in bioethics is a relatively new phenomenon in Pakistan. It was introduced as part of the undergraduate medical curriculum in a private university in Karachi in the mid-1980s and remained limited to that institution for many years (4,5). It was only after the initiation of formal degree-level bioethics programmes in 2006 that bioethics began to be incorporated into the undergraduate curricula of medical schools in Pakistan (6). There are two institutions in the country, both in Karachi, which offer graduate-level bioethics qualifications. One institution, which is in the public sector, offers two programmes – a postgraduate diploma in biomedical ethics and a master's in bioethics. The other, a private sector institution, offers a masters in bioethics<sup>ii</sup>. These graduate programmes, by enhancing bioethics capacity, are playing an important role in spreading bioethics education to the undergraduate level. This underlines the importance of this analysis, which seeks to gauge the internalisation of the message within bioethics.

Bioethics education at the graduate level is a relatively new phenomenon in the USA and Europe as well, and the programmes have, therefore, not been analysed as closely as the bioethics courses offered by medical schools. The latter have been closely evaluated for their impact and utility (7–9). Two main objectives have emerged in bioethics education for medical students. In addition to the objective of equipping students with the ability to identify and tackle ethical dilemmas in clinical practice and research, education in bioethics is also seen as having a wider role, including character-building. It has been noted that bioethics education has been moving towards this broader concept of providing moral education to produce good healthcare professionals (10). The view that bioethics education can help medical students become virtuous physicians has also been supported by others (11,12).

However, others are of the view that bioethics training at the medical school level should have more pragmatic objectives. While commending the efforts to inculcate virtue in physicians, Rachael Eckles and colleagues contend, "It is our belief that a more practical and measurable goal is to endow students with a set of skills for ethical reasoning that will allow them to recognise ethical dilemmas and equip them to reach practical, ethical solutions to those dilemmas" (13). This approach appears to focus on the ethical action, ie "doing it right", rather than on the character of the acting agent.

Aspects of formal graduate bioethics programmes have received less attention than bioethics education in medical schools. Through a series of studies, Eric Schwitzgebel and Joshua Rust attempted to assess the measurable impact of

ethics training on "professional ethicists" and concluded that they were no more, and occasionally even less, ethical than the average citizen. In one study, they gauged the opinions of ethicists' peers, who believed that "ethicists do not, on average, behave any better than non-ethicists" (14). In another study that examined whether ethicists and political philosophers fulfilled their social responsibility of voting, they found that ethicists fared no better than non-ethicists (15). In another study, it was reported that library books most likely to be of interest to professional ethicists were 50% more likely to be missing from library shelves, and ethics classics were twice as likely to be missing as non-ethics books (16). Similarly, while assessing the impact of medical ethics education on the medical staff of a large hospital, it was found that "cognitive moral development is entirely unaffected by ethics education" (17). Just as training of healthcare professionals does not ensure that they will not smoke, take drugs or consume an unhealthy diet, these studies indicate that bioethics education cannot guarantee ethical behaviour among those who take these courses.

The findings of this study, however, appear to indicate varying degrees of internalisation of bioethics education, which seems to have led to cognitive shifts in professional as well as personal conduct. The participants reported having become more introspective and self-critical, and feeling a greater sense of responsibility towards their patients and research subjects. They said they were now more empathetic towards and open to their patients, and this made for more meaningful communication. Although 35 of the 41 respondents in this study graduated from programmes that include a formal workshop on communication skills, none of them specifically mentioned that the workshop contributed to the improvement in their ability to communicate effectively. The perceived change in attitude may perhaps be a result of the overall impact of an education in bioethics rather than one particular workshop.

Among the most significant findings of this study relates to the change that the respondents reported in their relationship with pharmaceutical firms. Such linkages are being curtailed across the world because of well-documented conflicts of interest (18). In Pakistan, however, there are not many limitations on physicians receiving funding from the pharmaceutical industry for various activities. In fact, many even feel that it is their right to receive such funding, and even personal gifts, from pharmaceutical representatives since their institutions do not meet their needs in the spheres of continuing medical education, research and even patient care (19). Given this situation, the shift reported by the respondents is significant.

The respondents' willingness to change established practices, that too when most of them are medical professionals in the middle of their career and are well settled in their patterns of practice, is noteworthy and the possible influencing factors merit a deeper look. An analysis of the responses as well as a review of the relevant literature could bring to light several reasons for the internalisation of bioethics reported in this

study. Bioethics education is aimed at helping students make morally defensible choices (20). Exposure to formal bioethics courses may have sensitised the respondents and raised their awareness of unethical issues within their own practices, motivating them to bring about appropriate changes in their conduct. Similar changes have also been reported among nurses and social workers who have undergone ethics education (21). Although difficult to prove, it may also be the case that it was persons who were more morally troubled who opted for bioethics education in the first place and were, therefore, more liable to modify their behaviour. Also, the programmes may have had an underlying bias of selecting applicants considered to be the most "amenable". As this study included students from different programmes, and in the absence of knowledge of the selection process, it is difficult to substantiate this.

Unlike experiences from the West, concerns about legal issues or the nexus between law and ethics were conspicuously absent in the responses of the participants in our study. Also, the utility of ethics education as a legal safeguard never came up in the responses. Ethicists in the West have criticised the defensive thrust of bioethics curricula which, instead of helping to inculcate virtues in future doctors, focus on defensive manoeuvres that will help deflect possible lawsuits (22). The responses in this study could indicate the possibility of a separation of the moral foundation of actions from their legal implications in the minds of respondents. Another reason for this disconnect may be that although examples of medical negligence are often reported in the news, there is hardly any medical litigation in Pakistan (23). However, despite the paucity of lawsuits, concerns over litigation are not entirely absent from the minds of Pakistani physicians. In a study from Karachi, the respondents regarded the informed consent process, which is a bioethical process, as a means of avoiding possible litigation (24).

The respondents' narratives indicated that their colleagues and co-workers had high expectations of them and hoped that they could make a concrete difference in their institutions. Some expectations were reasonable and the respondents appeared to welcome opportunities to utilise their skills to address them. Interestingly, these primarily concerned mundane, basic issues, such as forming ethics committees, teaching bioethics and improving upon the informed consent form rather than emerging bioethical issues, such as nanotechnology and genomics, which occupy centre stage in the global bioethics discourse these days (25,26). This is perhaps because at present, even the most basic needs of bioethics have not been met in most institutions across Pakistan (4).

Some respondents reported that their colleagues were putting pressure on them to fulfil unreasonable expectations related to matters which had nothing to do with bioethics. Samuel Gorovitz has compared the exaggerated expectations of medical practitioners from bioethicists to those of patients from their caregivers. This, according to him, reflects how lay people look to "experts" to find solutions even when none may

exist (27). The exaggerated expectations may also stem from a general lack of knowledge of the role of bioethics in Pakistan, and misplaced expectations could sooner or later lead to disillusionment with the field.

Another area of concern brought out by this study is the criticism that the respondents face from their colleagues because of their involvement in bioethics. As a discipline, bioethics has frequently been criticised, often with good reason. As far back as 1984, Rene C Fox and Judith Swazey had criticised the field for suffering from "cultural myopia" (28). More recently in 2012, while tracing the history of ethics in medicine in his book, Tom Koch asserted that bioethics had been derailed from its initial objectives (29). Others are of the view that bioethics has been hijacked by those who finance it (30-32). Charges have also been levelled against bioethicists for their moral conduct (33,34). They have been criticised as a "cadre of 'experts'...who presume a moral expertise of breathtaking ambition and hubris" (35). It is for reasons such as these that the respondents in this study expressed the apprehension that they would now have to live under the microscope.

The gradual transformation of medical practice from a purely self-regulated field to one open to external regulation, often by non-physician ethicists, has been one of the factors that has given rise to such apprehensions (36). The increasing involvement of philosophers, lawyers, theologians, sociologists and others involved in ethical decision-making in the medical arena has been described as an "ethics industry", in which non-physicians lead "a national debate on ethical questions arising from modern developments in medicine" (37). The involvement of non-physician ethicists, against "the strenuous objections of doctors", is criticised by some as "giving the entire process an adversarial quality" (38).

Although none of the respondents reported being directly accused of moral misconduct, some said they had faced negative comments, or been sidelined or even mocked for having become "moral experts". This is interesting as the majority of the respondents were healthcare professionals and thus, "insiders" rather than "outsiders". One reason for this may be that research and hospital ethics committees are still relatively rare and ethical decisions are still largely the domain of medical practitioners (39).

## Conclusion

In addition to evaluating the scholarly and procedural skills that graduate education in bioethics is supposed to impart, assessing the internalisation of the spirit of bioethics is also important since such changes are reflective of the true strength of the experience. It was found that formal education in bioethics had made an internal impact on the respondents in this study. There were significant modifications in their perceptions and practices. While the respondents felt there was a definite need for their skills in bioethics, they also mentioned the challenges they faced, such as being the focus of unrealistic expectations and their colleagues' perception that bioethics is a threat.

It is hoped that these individuals' sincerity of purpose and belief in what they are doing, as reflected in this analysis, will not only enrich the other measurable outputs in bioethics like contributing to research, publications, developing ethics programs and setting up committees, but also help to clear the misconceptions and fears regarding the field and those involved in it.

### Limitations

The findings of this study are largely based on the personal perceptions of graduates from three bioethics programmes and, therefore, not independently verifiable. Most respondents had graduated from their programmes one to four years prior to this study and it is not clear whether their newfound virtuous inclinations would be sustainable in the long term. It is also possible that the study reports the perceptions of those who were more concerned about unethical practices and attracted to graduate education in bioethics.

An analysis of the course content and pedagogy of the various programmes in which the respondents were enrolled could have yielded information on the effectiveness or otherwise of the various strategies employed in the different bioethics programmes. However, a comparison of different programmes was not the objective of this study, and it was assumed that all the respondents must have received their bioethics degrees from accredited programmes that offered quality education in bioethics.

### Notes

- i A list of some such programmes is available at: The Hastings Centre. Graduate Programs in Bioethics. 2011[cited 2013 June 10]. Available from: <http://www.thehastingscenter.org/BioethicsWire/BioethicsGraduatePrograms/Default.aspx>.
- ii Details of the public sector institution programme can be seen at <http://siut.org/bioethics/> under Academic Programs, the website describes both programmes. Details of the private sector institution are available from: <http://www.aku.edu/collegesschoolsandinstitutes/medicine/pakistan/programmes/graduate/masterinbioethics/Pages/masterinbioethics.aspx>. Both institutions offer their programmes free of cost to all students fulfilling the selection criteria, the public sector institution using indigenous funds from its parent institute and the private sector institution utilising a grant from the Fogarty International Centre of the US National Institutes of Health.

### References

1. Plato. *Protagoras* [Internet]. Jowett B, translator. 2008 Nov 3 [cited 2013 July 14]. Available from: <http://www.gutenberg.org/files/1591/1591-h/1591-h.htm>
2. Aristotle. *Nicomachean ethics* [Internet]. Ross WD, translator. Date unknown[cited 2013 July 14] Available from: <http://classics.mit.edu/Aristotle/nicomachaen.html>
3. Nussbaum MC, Sen AK, editors. *The quality of life*. New Delhi, India: Oxford; 2000.
4. Moazam F, Jafarey AM. Pakistan and biomedical ethics: Report from a Muslim country. *Camb Q Healthc Ethics*. 2005;14(3):249–55. doi: <http://dx.doi.org/10.1017/S0963180105050346>
5. Jafarey AM. Bioethics and medical education [Editorial]. *J Pak Med Assoc*. 2003;53(6):209–10.
6. Iqbal S, Khizar B. Faculty awareness and interest about bioethics in a private medical college of Islamabad, Pakistan. *Indian J Med Ethics*. 2010

- Oct-Dec;7(4):220–2.
7. Patenaude J, Niyonsenga T, Fafard D. Changes in students' moral development during medical school: a cohort study. *CMAJ*. 2003;168:840–4.
8. Hicks LK, Lin Y, Robertson DW, Robinson DL, Woodrow SI. Understanding the clinical dilemmas that shape medical students' ethical development: questionnaire survey and focus group study. *BMJ*. 2001 Mar 24;322(7288):709–10.
9. Satterwhite RC, Satterwhite WM 3rd, Enarson C. An ethical paradox: the effect of unethical conduct on medical students' values. *J Med Ethics*. 2000 Dec;26(6):462–5.
10. ten Have H, Gordijn B. Broadening education in bioethics. *Med Health Care Philos*. 2012 May;15(2):99–101. doi: 10.1007/s11019-012-9392-x
11. Shelton W. Can virtue be taught? *Acad Med*. 1999 Jun;74(6):671–4.
12. Freeman JW, Wilson AL. Virtue and longitudinal ethics education in medical schools. *S D J Med*. 1994 Dec;47(12):427–30.
13. Eckles RE, Meslin EM, Gaffney M, Helft PR. Medical ethics education: where are we? Where should we be going? A review. *Acad Med*. 2005 Dec;80(12):1143–52.
14. Schwitzgebel E, Rust J. The moral behavior of ethicists: peer opinion. *Mind*. 2009;118:1043–1059.
15. Schwitzgebel E, Rust J. Do ethicists and political philosophers vote more often than others? *Rev Philos Psychol*. 2010 June;1(2):189–99.
16. Schwitzgebel E. Do ethicists steal more books? *Philos Psychol*. 2009;22(6):711–725. doi: 10.1080/09515080903409952
17. Gross ML. Ethics education and physicians morality. *Soc Sci Med*. 1999 Aug;49(3):329–42.
18. Fan T, Sears J. Will the Sunshine Act be a tough act to follow?[Internet]. Meetingsnet; 2011 [cited 2013 July 12]. Available from: <http://meetingsnet.com/medical-meetings-resources/will-sunshine-act-be-tough-act-follow>
19. Khan MM. Why physicians should not have any contact with pharmaceutical companies? *J Pak Med Assoc*. 2007 Nov;57(11):572–3.
20. Callahan D. Bioethics: private choice and common good. *Hastings Cent Rep*. 1994 May–June;24(3):28–31.
21. Grady C, Danis M, Soeken KL, O'Donnell P, Taylor C, Farrar A, Ulrich CM. Does ethics education influence the moral action of practicing nurses and social workers? *Am J Bioethic*. 2008 Apr, 8(4):4–11. doi: 10.1080/15265160802166017
22. Cigman R. How not to think: medical ethics as a negative education. *Med Health Care Philos*. 2013 Feb;16(1):13–8. doi: 10.1007/s11019-012-9407-7
23. Medical negligence: tragedy under wraps [Internet]. Islamabad: The Network for Consumer Protection; 2006 Mar [cited 2014 Mar 11]. Available from: <https://docs.google.com/viewer?url=http%3A%2F%2Fthenetwork.org.pk%2FResources%2FReports%2FPDF%2F15-8-2011-3-26-0-835-medical%2520negligence%2520final.pdf>
24. Jafarey AM, Farooqui A. Informed consent in the Pakistani milieu: the physician's perspective. *J Med Ethics*. 2005 Feb;31(2):93–6.
25. Knoppers BM, Chadwick R. Human genetic research: Emerging trends in ethics. *Nat Rev Genet*. 2005 Jan;6(1):75–9. doi: 10.1038/nrg1505.
26. Greely HT. Human genomics research: New challenges for research ethics. *Perspect Biol Med*. 2001 Spring;44(2):221–9.
27. Gorovitz S. Baiting bioethics. *Ethics*. 1986 Jan;96(2):356–74.
28. Fox RC, Swazey JP. Medical morality is not bioethics—medical ethics in China and the United States. *Perspect Biol Med*. 1984 Spring;27:336–60.
29. Koch T. *Thieves of virtue: When bioethics stole medicine*. Cambridge, MA: MIT Press; 2012: 352 + xx pp.
30. Elliott C. Six problems with pharma-funded bioethics. *Stud Hist Philos Biol Biomed Sci*. 2004;35:125–9.
31. Emanuel EJ, Lemmens T, Elliot C. Should society allow research ethics boards to be run as for-profit enterprises? *PLoS Med*. 2006 Jun;3(7):e309. doi: 10.1371/journal.pmed.0030309.
32. De Vries RG, Keirns CC. Does money make bioethics go round? *Am J Bioethics*. 2008 Aug;8(8):65–7. doi: 10.1080/15265160802342931.
33. Stolberg SG. Bioethicists find themselves the ones being scrutinized. *The New York Times* [Internet]. 2001 Aug 2 [cited 2014 Mar 12]; Available from: <http://www.nytimes.com/2001/08/02/us/bioethicists-find-themselves-the-ones-being-scrutinized.html?pagewanted=all&src=pm>
34. Cyranoski D. Editor's move sparks backlash [Internet]. Nature. 2012 Feb 21 [cited 2014 Mar 11];482(7386):449–50. doi: 10.1038/482449a.

Available from: <http://www.nature.com/news/editor-s-move-sparks-backlash-1.10068>

35. Smith WJ. Culture of death: The assault on medical ethics in America. San Francisco, CA: Enterprise Books;2000.
36. Culliton BJ, Waterfall WK. Flowering of American bioethics. *BMJ*. 1978 Nov 4;2(6147):1270-1.
37. Williams N. To the heart of a clinical matter. *The Guardian*. 1991 Apr 17: 21.
38. Rothman DJ. Strangers at the bedside: a history of how law and bioethics transformed medical decision making. New York: Basic Books; 1992.
39. Jafarey AM, Iqbal SP, Hassan M. Ethical review in Pakistan: The credibility gap. *J Pak Med Assoc*. 2012; Dec;62(12):1354-7.

## Knowledge, attitudes and practices related to healthcare ethics among medical and dental postgraduate students in south India

CHANDRASHEKAR JANAKIRAM<sup>1</sup>, SEBY J GARDENS<sup>2</sup>

<sup>1</sup> Professor, Bioethics, Amrita School of Dentistry, Cochin INDIA <sup>2</sup> Assistant Professor, Department of Public Health Dentistry, Amrita School of Dentistry, Cochin INDIA  
Author for correspondence: Chandrashekar Janakiram e-mail: [sekarcandra@gmail.com](mailto:sekarcandra@gmail.com)

### Abstract

**Background:** Conventional medical training offers students little help in resolving the ethical dilemmas they will encounter as healthcare professionals. **Objective:** This article aims to assess the knowledge of, practices in and attitudes to healthcare ethics among postgraduate medical and dental students. **Methodology:** A questionnaire-based, cross-sectional study was carried out at two medical and dental schools in south India. A total of 209 medical and dental students were contacted and at least three were selected from each subspecialty of medicine and dentistry. One hundred and ninety-nine consented to participate and 172 returned the questionnaire (response rate 83%). The questionnaire, which was a 35-item pre-tested, self-administered questionnaire, included both closed and open-ended questions. The proposal for the study was approved by the institutional review board (IRB) and the permission of the respective heads of department was obtained. Written consent was obtained from each participant. The returned questionnaires were analysed using SPSS version 11.5. Descriptive analysis was carried out for all the data. The attitudes of the postgraduates of different courses towards practical ethical problems were compared using a Chi square test. **Results:** Medical and dental postgraduates had obtained their knowledge of bioethics from "other sources such as the Internet, newspapers, etc", followed by their "undergraduate training" and "experience at work". Nearly 68% of the postgraduates had not undergone any bioethics training. Nearly 98% of the medical postgraduates, as compared to 79% of the dental postgraduates, knew that their institution had an ethics committee. There was a difference between the medical and dental students in terms of their attitude to and knowledge of healthcare ethics, with the former having a superior knowledge of the subject and a better attitude. **Conclusions:** The medical and dental postgraduates come across ethical issues during their training, but are not equipped to resolve the ethical dilemmas they encounter. The dental postgraduates have less of an appreciation of healthcare ethics than their medical counterparts. The incorporation of a bioethics curriculum in the initial period of the postgraduate programme would be beneficial.

### Introduction

Doctors attending to patients in an emergency health situation have often had to face assaults on account of the recent increase in the awareness of patients' rights in India (1,2,3). These may be due to the paternalistic attitude of the doctor or a lack of understanding, or may simply be emotional outbursts. Advances in biomedical technologies such as life support and artificial reproductive technologies have brought new ethical dilemmas in their wake and have exacerbated the problem. Ethical dilemmas are usually encountered in areas such as abortion, contraception, treatment of a patient with a terminal illness, professional misconduct, maintaining a patient's confidentiality, the doctor's professional relationship with the patient's relatives, religion, traditional medicine, and conflict of interests. The conventional medical course offers students little help in resolving the ethical dilemmas they will encounter as healthcare professionals. Training in medical ethics has been made mandatory in the undergraduate curriculum by the regulatory body of medical education, the Medical Council of India (MCI); but it has been placed under forensic medicine (4). There are very few medical colleges in India with a standardised ethics curriculum, and with provisions for evaluation (5). The dental curriculum makes merely a passing mention of the principles of ethics (6).

Medical and dental postgraduate students undergo intensive training in their specialties and their focus is chiefly on organ specialisation. Postgraduates need intensive training in bioethics so that they have an appreciation of the patients' rights, cultural differences and research ethics, and are equipped to resolve ethical dilemmas.

There are varied views on strategising the teaching of bioethics. Most of them emphasise the importance of tailoring the teaching of the subject to the needs of the society concerned (7). The teaching of bioethics should also be holistic. For example, students could be taught about the value of the "heart" over the "mind", of the system of values and beliefs in a community, and of the need to understand the lived experiences of patients; while also incorporating various ethical approaches (8).