

Medical Professional Values and Education: A Survey on Italian Students of the Medical Doctor School in Medicine and Surgery

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Abstract

Background: The values such as participation/empathy, communication/sharing, self-awareness, moral integrity, sensitivity/trustfulness, commitment to ongoing professional development, and sense of duty linked to the practice of the medical professionalism were defined by various professional oaths. **Aims:** The aim of this study was to evaluate how these values are considered by the students of the degree course of medicine. **Materials and Methods:** Four hundred twenty three students (254 females, 169 males) taking part of the first, fourth, and fifth years of the degree course in medicine were asked to answer seven questions. Pearson's Chi-square, Wilcoxon rank sum test, and Kruskal–Wallis test were used for the statistical analysis. **Results:** The survey showed a high level of knowledge and self-awareness about the values and skills of medical profession. In particular, the respect, accountability, and the professional skills of competence were considered fundamental in clinical practice. However, the students considered that these values not sufficiently present in their educational experience. **Conclusions:** Teaching methods should be harmonized with the contents and with the educational needs to ensure a more complex patient-based approach and the classical lectures of teachers should be more integrated with learning through experience methods.

Keywords: Empathy, Ethical values, Influencing factors, Medical education, Teaching methods

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Introduction

Ever since antiquity the values linked to the practice of the medical professionalism (MP) have been stated and defined by various professional oaths, starting with the well-known Hippocratic Oath.^[1] Over the centuries and with the evolution of the MP in modern and postmodern society, the ethical values underpinning these oaths

have gradually changed.^[2-5] World's leading medical organizations have recently updated and explained the definition of MP.^[4] In this context, the relationship between the physician and the patient is a core issue: A review produced by several medical associations in Europe^[6] and in United States^[7] stresses that the patient–physician relationship^[8] is a surrogate marker to assess the role of MP.^[9,10] Although the knowledge and internalization of the values connected to the MP are fundamental requirements for professional practice at any level, the studies concerning this topic have mostly been carried out among fully trained professionals^[10] or in the advanced phases of specialized training.^[11,12] On the contrary there are still very few data available about medical students^[13,14] of the medical doctor (MD) degree in medicine.

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In this paper the medical student is considered as a sensor acceptor of the values of MP,^[15,16] investigating by questionnaire the awareness of the values of the medical profession and the way these values are taught. Students were also asked to express their point of view on the methods to improve their educational level linked to ethical values of MP.

Materials and Methods

The survey was held between May and June 2010 at the MD degree in Medicine and Surgery at Padua University, in collaboration with the Association of Medical Practitioners, Surgeons and Dental Practitioners of Padua in Italy.

Participation was voluntary, and we assured respondents of confidentiality. Four hundred twenty three students (169 males and 254 females) were involved, out of a total population of about 1200 students in the first, fourth, and fifth years of the MD degree; 52.0% of them ($N = 220$) attending the first year of the MD degree, 23.8% ($N = 101$) the fourth year and 24.2% ($N = 102$) the fifth year of the MD degree.

First-year students may be considered naïve as regards personal academic experiences. The investigation on this group allowed a direct evaluation of the ideas and initial expectations of those who choose to follow a career in Medicine and Surgery. Fourth- and fifth-year students already have some cultural and practical experience that may influence their perception of the values of the MP in various ways. Second- and third-year students were excluded from the survey, as they are supposed not to have had any practical activity in the wards yet.

It was presumed that students do not significantly alter their perception of the MP, unless for personal reasons (e.g., one of their relatives is a physician), as long as they lack direct clinical and health care experience. Sixth-year students were not included in the survey due to the difficulty of recruiting them, as they have no lessons in the second semester of the MD degree.

General protocol

Questionnaires were given to students in the classrooms, just before the beginning of lessons. The participation in the study was voluntary, and supplying personal identification information such as names or student identification numbers was optional. According to the Physician Charter on MP,^[6,7] students were asked to fill an anonymous questionnaire, composed of seven questions [Table 1] on the values [Table 2] of the MP. The values were translated into Italian language and

Table 1: Questionnaire

Question	Method of reply
1. Do you know the above listed values/skills inherent to medical professionalism?	Likert scale (0→5)
2. Considering your present experience, how much do you believe it is important to apply these values/skills in your future medical profession?	Likert scale (0→5)
3. Which of these values/skills do you consider essential in the medical profession?	Max 3 preferences
4. What is the level of teaching of these values/skills in the degree course in medicine and surgery?	Likert scale (0→5)
5. Do you think it is useful to teach these values/skills in the degree course in medicine and surgery?	Likert scale (0→5)
6. Which of these themes would you be interested in learning more about?	Max 3 preferences
7. In your opinion, which of the methods below can convey further knowledge of these values/skills?	Max 2 preferences

Table 2: List of the values and professional skills of the medical profession

1. Altruism, in the sense of willingness to invest the "right" amount of time, patience, and energy for the patient's benefit
2. Respect of the patient
3. Sensitivity regarding age, gender, culture and different ability
4. Accountability=taking responsibility for one's actions
5. Confidential relationship between patient and doctor; ability to keep personal information (privacy)
6. Communicating and sharing decisions with the patient (informed consent)
7. Integrity=remaining faithful to one's values and convictions
8. Compassion and Empathy=ability to create an understanding with the patient
9. Sense of Duty=respecting one's tasks and responsibilities
10. Competence=medical knowledge, practical skills and ability to decide in accordance with the most up-to-date scientific data and with the patient's choices
11. Managing conflicts of interest=being able to put the good of the patient before any other interest (political, economic, etc.)
12. Self-awareness=being able to manage one's own feelings, knowledge, behavior and convictions in the most opportune manner
13. Commitment to ongoing professional development to improve the quality of care provided to the patient

accompanied by a brief explanation, supplied on the first page of the questionnaire. This was done in order to reduce variability in the possible personal interpretations of the items, following an internationally agreed line of interpretation.

For questions 1, 2, 4, 5 [Table 1] students were asked to assign a score using the Likert scale from 0 to 5 (where 5 was the maximum). In question 1 they were asked to express a score for each of the 13 values. In questions 3, 6, and 7 they had to express their preferences between the items proposed, as follows: 3 preferences out of 13 items to questions 3 and 6, and 2 preferences out of 6 items to question 7 [Tables 2 and 3].

In general the questionnaire dealt with (1) the knowledge of values and professional skills, (2) the importance of the values of the medical profession, and (3) how values and skills are taught.

Statistical analysis

Pearson's Chi-square test was used for dichotomous variables, while for ordinal variables the Wilcoxon rank sum test was used for comparison by gender and the Kruskal-Wallis test for comparison between the course years. The data were analyzed using the SPSS statistical package for Windows, version 19. The chosen degree of significance was the conventional value $P \leq 0.05$.

Results

The survey stressed quite a high level of knowledge and self-awareness about the values and skills of MP. As for question 1 [Table 1], the median value was 4-5 for all years of DC in both genders. After stratification by course year, the values of sensitivity ($P = 0.0371$), integrity ($P = 0.0098$), professional skills of communication and shared decision making ($P = 0.0054$), compassion and empathy ($P < 0.0001$), and managing conflicts of interest ($P = 0.0076$) are better known between the fourth-and fifth-year students than first-year students. On the contrary, first-year students declare to know the professional skills and values at a higher level than those of the fourth and fifth years of DC ($P = 0.0267$). Gender differences are to be considered as well: Female students gave emphasis to the values of altruism ($P = 0.0147$), respect ($P = 0.0045$), sensitivity ($P = 0.0318$), confidentiality ($P = 0.0309$), communication and shared decision making ($P = 0.0132$), integrity ($P = 0.011$), duty ($P = 0.0054$), managing conflicts of interest ($P = 0.019$) more than males students. No

statistically significant gender-based difference was found for accountability, compassion and empathy, self-awareness, and ongoing professional development.

More than 70% of students, agreed in attributing a high importance level (Likert scale score 5) to the application of all the values/skills of MP in clinical practice (question 2), especially female rather than male students ($P = 0.0025$). For the main part of students the values of respect, accountability and the professional skills of competence are fundamental in clinical practice; on the contrary the values of self-awareness and confidentiality and the professional skills of managing conflicts of interest, compassion and empathy are considered as less important [Figure 1]. No relevant gender-based difference was found for these question. Considering the different years of MD degree, the values of confidentiality ($P = 0.0188$) and integrity ($P = 0.0125$) and the professional skills of communication and shared decision making ($P = 0.0242$) were more significantly distributed in fourth-and fifth-year students than in those of the first year; the value of competence was also more significant ($P = 0.0045$) in the former than in the latter.

The students globally consider that the values/skills are poorly taught and not so present in their educational experience (question 4). The level of teaching values/skills was generally marked as low: Likert score of 3 or less was 48% for first-year students, 52% for fourth-year students and 56% for fifth-year students of DC. No significant gender-based differences has been observed. The level of teaching was found especially low (Likert score of 2 or less) by the students of the fifth year [Figure 2]: More than 30% of fifth-year students attributed a Likert value 2 to this question, while for first- and fourth-year students the most frequent score was 3. Compared to their younger colleagues, senior students seem to be more skeptical about the actual importance given to ethical values within teaching programs.

Students generally judged that teaching values/skills is fundamental for clinical practice (question 5): More than 50% of them responded to question 5 with the top score of the Likert scale. The usefulness of teaching values and skills was more evident for female rather than male students (58% vs. 46.5%, $P = 0.0017$). Male students instead showed a higher and more significant interest for ongoing learning than females ($P = 0.0427$). The value of "trustfulness" (basically, a physician-patient relationship based on trust) is given more emphasis by fourth-and fifth-year ($P = 0.0366$) (question 6): We may argue that senior students, who already have some clinical experience, have already be faced to complex physician-patient relationships (e.g., the patient's lack of confidence in the physician's skills, or even in medical science in general).

Table 3: Methods proposed by the questionnaire for further learning

1. Teaching in classroom situations
2. Teaching by seminars in small groups
3. Showing audiovisual recordings of doctor-patient interactions
4. Activity in the ward in direct contact with the patient
5. Role play
6. First-hand accounts from junior specialist physicians

As regards the methods to improve teaching of values/skills [question 7, Table 2], more than 70% of the students required more practical activity in the hospital department, in direct contact with the patient. The students also consider that they could take advantage from the experience of young specializing physicians, being tutored by senior students or just having more opportunities of dialogue and exchange. This is considered as more useful by first-year student ($P=0.0062$) rather than those of fourth and fifth years of MD degree.

The main part of the students seem to prefer seminars in small groups, and therefore a more direct student-professor approach, rather than the classic magisterial lessons. Students of the fourth and fifth year would especially appreciate role-plays, that is a kind of cooperative learning based on the simulation of possible every-day situations. Learning-by-experience method in small groups are especially requested by senior students, who had practical lessons in the ward, already experienced “overcrowding” around the patient’s bed during the exercises followed from the 4th year onward [Figure 3]. As for gender-based differences, male students are more interested than female in role playing.

Discussion

In this study students declared to have a good knowledge and awareness of the values and skills related to the MP and considered them very important in their learning. As expected the knowledge of the values and skills progressively increases during the years of MD degree, demonstrating that lessons and clinical experience improves their sensitiveness and perception of these elements.

The most considered professional skills are altruism, ongoing professional development, sense of duty, and competence and among the values respect and accountability. These values are core issues of the patient-centered approach,^[17,18] characterized by a global relationship between the physician and the patient. The patient, as well as the physician, is not regarded as an object of medical profession, but as an actor. This model shifts the physician’s point of view: His attention is no longer focused exclusively on the patient’s illness, but rather on the patient himself. In this approach it is therefore fundamental to learn how to create a relationship and a therapeutic alliance with the patient. Factors such as respect, sensitivity for individual differences, altruism, confidentiality, compassion, empathy, integrity, accountability, commitment, self-awareness, and competence all contribute to determine the outcome of the therapeutic intervention.^[19]

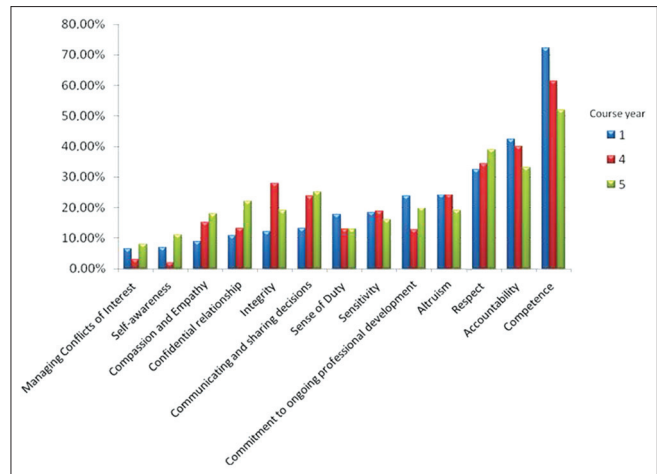


Figure 1: Essential values by course year

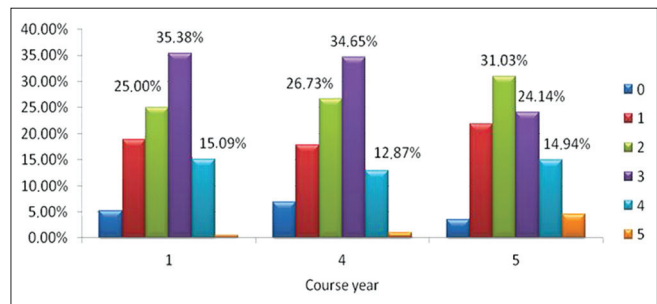


Figure 2: Degree of teaching by course year

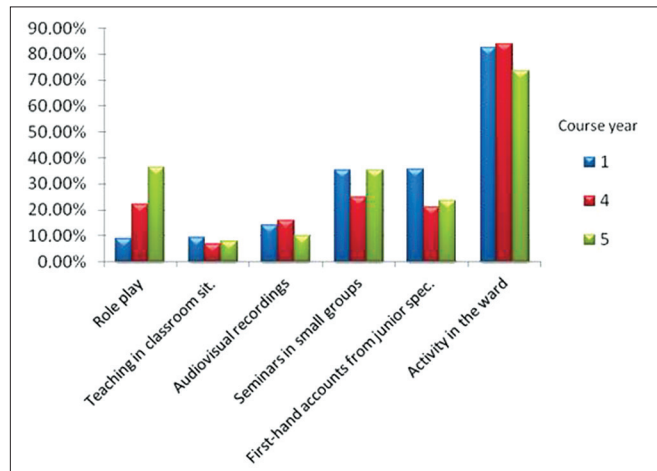


Figure 3: Methods of further learning by course year

Despite the high interest of students, the basic values of MP appear to be poorly developed during their studies in Medicine and Surgery.

Students particularly requested more intensive activity in the ward with the patient, stressing the importance of learning by experience. Also the possibility of hearing first-hand accounts from junior specialist physicians would be appreciated, with regard to their human, rather than technical, experience; this is probably due to the fact

that junior specialist physicians are seen as being closer to the student's own situation. The interest for learning techniques such as role-playing might arise from the practical difficulty encountered in the direct contact with patients, so it may be considered as a complementary or support activity. Lastly there is a clear request for a more direct and personal approach to these themes, rather than just classic classroom lesson.

Faced with these data, we should now consider what would be the correct tools to deepen the knowledge of MP. Some aspects of communication and self-awareness, for example, can be dealt with in theoretical lessons. But how can one set about "teaching" aspects such as empathy and sensitivity, sense of duty or integrity? Students shall have the opportunity to learn about a real patient-centered approach, and to directly observe the benefits coming from this approach, as well as its critical points. In this way future physicians could also find scientific reasons for a commitment in this direction, and shall be more aware of the importance of the care relationship as a therapeutic instrument. Just as the tradition of medical teaching has established over the centuries, first-hand experience is fundamental, although requiring a more time and commitment.

As confirmed by literature in the field,^[20,21] learning to communicate effectively, feeling and showing respect and empathy, building up a therapeutic relationship based on confidentiality and joint responsibility are educational goals that can be only reached through the various forms of learning by experience: Learning directly from an expert model during training or activities in the ward, role playing with eventually making a video recording to be watched afterward, practicing with fellow students in exercises involving pairs or groups, being supervised by a more expert tutor during activities with patients. Ongoing evaluation is to be implemented as well: These activities should be backed up by a reflection on what has been done,^[22] possibly within a small group. Students would thus become more aware of and the effects of their own actions, and would develop new and more effective ones, also thanks to the contribution of their fellows.

All the above aspects need to be favored in developing countries as has emerged from recent literature.^[23,24]

Conclusion

The student of the MD degree requires a widespread educational process for the MP involving the acquisition of specific competences (e.g., empathy, self-awareness). Ethical values and "human" skills have been considered as core issues of MP, but the acquisition of professional skills and the awareness of ethical values were considered as an implicit consequence of the practice.

The results of the study are in line with recent choices of the Medical School Faculty of the University of Padua, where new courses were implemented, focusing on "human" aspects of medical education.^[24-26] Finally teaching methods should be harmonized with the contents and with the educational needs to ensure a more complex patient-based approach and the classical lectures of teachers should be more integrated with learning through experience methods.

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