

Development of ethical practices and social responsibility in dental education at the university of Chile: student and faculty perceptions

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Abstract

Background: The authors argue that dental curricula in Latin America are noted for providing highly technical and individualistic training that may fail to address society's problems or instil in the dentist the idea that he/she has a social responsibility to contribute to his/her community.

Objectives: This study's main objectives were to determine whether the curriculum and the faculty teaching practices of the School of Dentistry at the University of Chile contribute to its students' commitment to ethical and social responsibility.

Methods: This was a qualitative study that investigated the perceptions of sixteen subjects (eight students and eight faculty members). Data were collected in thorough deep interviews. The interview process model conceptualised and organised the information into sets of dimensions and categories. The dimensions studied were ethical commitment and social responsibility. The categories assessed within ethical commitment were honesty, tolerance, responsibility and respect. In the social responsibility dimension, the categories were solidarity, teamwork and concern for and communication with the patient. Analysis of the textual data was performed using a method of content analysis based upon constructed qualitative matrices.

Results: Our results show that students and scholars alike realise that ethical commitment and a sense of social responsibility are not promoted in the curriculum. They do, however, recognise the importance of these qualities in dental practitioners.

Conclusions: These results indicate that the current curriculum and teaching practices used in our School of Dentistry need to be reviewed and that programmes promoting professionals' commitment to their role in society need to be implemented.

Introduction

Several publications have reported that, in the curricula of dental schools in Latin America and throughout the world, it is necessary to increase the emphasis on the dentist's social role and on his/her social responsibility as a member of society, to improve the connection between educational institutions and community needs, so reducing inequalities and increasing the opportunities for public access to dental care (1–6). In

addition, the Association for Dental Education in Europe (ADEE) has defined the necessary competencies that should possess a dentist, and ethical behaviour and social skills have been recognised as major competences for graduating dentist in Europe (7).

In Brazil, the failure of the dental curriculum to improve the quality of oral health in the population has been reported (1). This failure has been attributed to a lack of appropriate training for dentists, as they do not learn how to implement

programmes of work that target prevention and healthy behaviours (1). The same results have been reported in the United States, where a third of the population has no access to dental care. US dental schools have recognised the need for curricular changes that will promote these facets of dental education for future practitioners (2, 3, 8). In addition, it has been reported that the current curriculum for dental students has no ethical-moral-oriented features, or at least that such curricular features are not explicit. These features are mainly related to professional attitudes and behaviours towards patients and institutions (9–12). In recent studies, Brands et al. have showed that dental students in The Netherlands have a cynicism about the ethics of their future profession and they believe that many dentists regularly violate ethical and legal norms (13). Additionally, they found a significant decrease in ethical behaviour between the first- and fifth-year students and a high percentage of the surveyed students are not consistent, which means that the way they plan to behave in the future do not coincide with what they think is the right way to behave (14). Furthermore, the environment in dental schools is not likely to promote the personal and human development of students (15), with the result that students often engage in unethical conduct in response to career pressures and view patient care as just another set of inflexible requirements that must be met (16, 17). The attitudes and values of their teachers also affect student opinions, especially in the final years of their education, during which much of the education takes place through direct mentoring by the teacher whilst the student is taking care of patients: the hidden curriculum is of great importance in this dental educational context (18, 19). Students perceive that teachers prioritise and reward the successful performance of clinical procedures, student achievement and completion of the programme within the allotted time, not the student's concern for their patients and/or their adherence to appropriate professional ethical conduct (9, 10). In this context, this paper aims to investigate, from the viewpoints of students and faculty, how the curriculum and teaching practices of the School of Dentistry at the University of Chile contributes to the socio-ethical education of dental professionals.

Educational context

The dental school at the University of Chile offers a 5-year Bachelor of Dental Science programme (~100 students/year cohort), and after an additional year, with a community service internship and an investigative thesis, students obtained the title of Dental Surgeon. The programme has a semi-rigid curricular mesh covered by objectives. Content is structured into three segments defining a cycle of basic courses, a pre-clinical cycle (with courses which mainly use simulators) and finally a professional-clinical cycle. Teaching methodologies are traditional and consist of auditorium teaching, seminars, laboratory work and clinical demonstrations/practise. Additionally, our current curriculum is void of any ethical and social responsibility content in formal courses and these aspects are expected to be covered mainly by mentoring or modelling, as described in the hidden curriculum (18, 19). However, our faculty's explicit awareness and education in this aspect of teaching and modelling is minimal.

Materials and methods

Study materials

The statements of instructors and dental students, at the Dental School of the University of Chile, expressing their perceptions about the contribution of the curriculum to the development of ethical and social responsibility.

Study subjects (or informants)

Sixteen participants eight of whom were students and eight were faculty members.

Strategies used in the selection of informants

Two categories for the informants were selected: key informants and comparable cases.

Key informants: Were selected based upon their similarity to an ideal typical case. The profile or attributes of this prototype were extensive knowledge of culture, which means that they are aware of the socio-educational faculty context (administrative, academic, teaching, relationships, needs and problems within the faculty, etc.). Six key informants were selected: three were faculty members with positions in administration and management, including the Director of the dental school, the Academic Director and the Dean of Students, and three were dental students who were in their 4th or 5th year of the programme. The students belonged to the student union, which is an entity elected by direct vote of the students, representing their concerns, needs and problems to the faculty authorities.

Comparable cases: Ten informants (five faculty members and five students) with the following attributes were selected:

- Faculty members: Teaching experience of more than 5 years, current or past teaching responsibilities in a clinical field and a contract of at least 22 h per week, with more than 50% of that time dedicated to education. In addition, they must belong to different clinical departments within the dental school.
- Students: Graduate-level students who had participated in their community hospital assistant internship by the time of the interview.

The sample size was initially fixed but was open to revision during the course of the investigation if data collection reached the point of information saturation. Information saturation occurs in the course of an investigation when respondents begin to repeat the same concepts and stop contributing new information to the investigation.

Instrument

In this study, the data were collected through in-depth interviews between one of the researchers (MA) and informants.

We used an open and flexible interview script that was designed to obtain as much information at the greatest possible depth from both students and teachers on the issues discussed. The interviews were directed towards understanding the informants' perspectives, as expressed in their own words, on their lives, experiences and situations as they related to socio-ethical

dental education. The interviewer therefore acted as a facilitator without issuing prompts.

Examples of questions of the script for interviews: Do you think that through our teaching practices we contribute to the honesty of our students?

Do you think our current curriculum contributes to the formation of professional solidarity?

Do you think that through our teaching practices we contribute to training in tolerance and respect?

Do you agree that our current curriculum contributes to the formation of professionals capable of working in a health team?

Do you think that through our teaching practices we contribute to the formation of a responsible professional?

Do you think that through our teaching practices we contribute to the development of student's communication skills and concern for the patient?

Interviews lasted between 50 and 70 min and were audio-recorded and transcribed for analysis. To validate the instrument, three interviews were conducted, with two faculty members and a student, prior to the study to ensure that the questions were well designed, which mean they were completely understood by the interviewed individuals.

Analysis of information

An analysis of the discourse of the interviewees in relation to the subject of the investigation was performed to assess the subjects' statements. The content analysis model with qualitative matrices was used to interpret the interview data, using a system of dimensions and categories to conceptualise and organise the data for final reporting of the results. First, two large dimensions or thematic cores were identified that correlated to our research objectives. Second, different ideas were grouped as categories within the established dimensions to obtain a deeper understanding of the subject under study. The operational definition of categories was established adapting the definitions from the American Dental Education Association (ADEA) Statement on Professionalism in Dental Education and the American Dental Association (ADA) Principles of Ethics and Code of Professional Conduct (20, 21). After that, two experts in qualitative research validated definitions of categories. They were asked to identify the text of the interview segments that, in their judgment, corresponded to the different categories. The researchers carried out the same procedure, and the results were compared to verify the reliability of definitions. The agreement between the experts and the researchers was 100%. The dimensions and categories studied and operational definitions of categories are showed in Table 1.

The study protocol was approved by the Ethics Committee of the School of Dentistry of the University of Chile. All participants gave informed consent for the interview and for use of their interview data during the analytical stage of the study. All identifying details and personal information were kept confidential.

Results

The studied categories from ethical commitment were honesty, tolerance, responsibility and respect. A qualitative matrix with

representative citations of the interviews with the informants is shown for each category in Table 2.

Regarding the honesty and tolerance categories, both groups agree that these values are not being promoted or included in the programme. For the categories responsibility and respect, students said that the curriculum and teaching practices provide adequate opportunity for learning. This opinion was contradicted by the faculty members, who believed that these qualities are generally not imparted to the students.

Citations for honesty:

'Sometimes career training can lead to failures in the realm of certain values, and one of those is honesty. For example, in desperation, students forge signatures of teachers on clinical records' (Student, interview 9).

'I got to see other cases in which people lacked a restoration (to complete the clinical program), and they wrote it in the file because otherwise they would lose a full year' (Student, interview 10).

'I think we talk a lot about honesty but we do not stimulate it; I'm talking about specific methods or practices that make students learn honesty. I think that we supervise rather than teach them to be honest' (Faculty member, interview 2).

Citations for tolerance:

'I believe that if there is something bad about the training at the school, it is that it is rigid, it is intolerant; even from a conceptual standpoint, the teeth must have a specific color and shape and no other' (Student, interview 9).

'I think that tolerance is generally low. There is a lot of intolerance, even among teachers, and students are aware of this, and these are their models' (Faculty member, interview 8).

Citations for responsibility:

'I think it does provide this because we are taught to respond to a patient, to deliver high quality treatment' (Student, interview 15).

'The scheduling requirements and the demand for results make you more responsible' (Student, interview 12).

'The responsibility, I believe, is directly related to the behaviour of the faculty, through teaching. That is to say, students grasp when things are true, the faculty are responsible, and they assume the same responsibility' (Faculty member, interview 6).

Citations for respect:

'Yes, respect is a value that the academy promotes widely among peers' (Student, interview 11).

'Respect is promoted in training. I had no experience to the contrary. In general, the school has an environment of respect and promotes this same attitude toward others' (Student, interview 9).

'I do not know if we encourage respect, and I do not know if I have built it. There are some areas, like fixed prosthesis or prostheses in general or surgery, where the teacher is like the one true God and has no respect for the student' (Faculty member, interview 7).

'In general, we do not promote respect. What they do is observe silently and learn the quirks of the teachers and behave according to who is listening at that time' (Faculty member, interview 2).

Table 2 summarises the results in the social responsibility dimension. Both groups said that this dimension was the less

TABLE 1. Operational definition of categories

Dimension	Category	Definition
Ethical commitment	Honesty	To behave and speak with consistency and sincerity, and in accordance with the values of truth and justice. Respect for the truth regarding the world, events and people.
	Tolerance	Capacity of an individual to accept something that he disagrees. Respect for the ideas, beliefs or practices of others when these are different or contrary to their own.
	Responsibility	Existing capacity in all active subject of right to recognise and accept the consequences of a freely act. In our context, the responsibility was mainly directed towards the patient, but also to peers and teachers.
	Respect	It is consideration and deference. It is the foundation of our social life valuing in its proper dimension all opinions and all reflection. In this category, the relations of respect between peers, students and academics, and students to their patients were considered.
Social responsibility	Solidarity	Cohesion. Adherence to a cause, person or group of people. This work established that students apply solidarity mainly to the group to which they belong.
	Teamwork	Group of people working in a coordinated manner and committed to the implementation of a project or to achieve common goals.
	Concern for and communication with the patient	Being interested in the welfare of a person (in this case the patient). Communication involves talking; tell something to someone by considering his/her opinion. Also be able to explain to the patient, in an understandable language, implications of the dental treatment.

TABLE 2. Qualitative matrix comparing perceptions of faculty members and students regarding the curriculum's contributions to the development of ethical commitment and social responsibility

Dimension	Category	Students (n = 8)		Faculty (n = 8)	
		Positive opinions	Negative opinions	Positive opinions	Negative opinions
Ethical commitment	Honesty		It is not encouraged or expected owing to other pressures and demands. (8)		It is not encouraged or developed. (8)
	Responsibility	It is encouraged and developed. It is being acquired. (6)	Weakened by irresponsible conduct of teachers. (2)	It is developed. (3)	It is not implemented. (5)
	Tolerance		Not developed. Rigid and discriminatory instruction. (8)		It is not taught or cultivated. There is much intolerance shown by teachers. (8)
	Respect	It is encouraged, developed and promoted. (8)			It is not implemented or developed; it is in crisis. (8)
Social responsibility	Solidarity	It is relative, only amongst some (friends). (4)	It is not encouraged. There is a competitive environment. (4)		It is not implemented. Individualistic development and intense competition. (8)
	Teamwork		It is not encouraged. It is not obtained. (8)		It is not considered or implemented. (8)
	Concern for and communication with the patient	There is concern.(4)	The teachings do not give the tools to communicate. (4)		It is not encouraged; patients are like a programme. (8)

The number in parenthesis represents the number of individuals who expressed the idea. Empty cells mean nobody gave an opinion in those items.

promoted or facilitated by the curriculum and the teaching practices and related to all the studied categories of the dimension.

Citations for solidarity:

'No, that's definitely not encouraged by the curriculum. In fact, it encourages competition' (Student, interview 11).

'I don't feel that our education, in general, encourages solidarity. I think the opposite, which is that it generates competition' (Faculty member, interview 2).

Citations for teamwork:

'I think that here, teamwork is not encouraged, and I consider it somewhat important, especially if one thinks

in terms of the healthcare field as a whole' (Student, interview 9).

'Overall, the curriculum points to a very individualistic professional practice; there are few ways someone can become part of a team' (Student, interview 16).

'Teamwork is the least taught and implemented. I believe that the training of dentists in dental school is very individualistic' (Faculty member, interview 1).

'I think teamwork is not established or internalized in such a way as to be transmitted through the curriculum or study plan' (Faculty member, interview 7).

Citations for concern for and communication with the patient:

'When one has just graduated, much work is needed to effectively treat and communicate with people because here in dental school, it is different in that we have the support of faculty on this front' (Student, interview 9).

'I feel that at no time do they give us the tools to communicate with the patient' (Student, interview 14).

'What I see is that the patient in general is not seen as a patient but rather as a program, and students thus forget about the patient as a human being and only remit their actions to whatever needs to be done technically' (Faculty member, interview 3).

'I think the communication often fails, it is deficient; they don't see the patient as a person' (Faculty member, interview 5).

Discussion

The main objective of this study was to establish, based upon the opinions of students and faculty members, whether the curriculum and the teaching practices at the School of Dentistry of the University of Chile foster ethical commitment and social responsibility in students. This work is within the framework of the qualitative methodology that offers an opportunity to explore perspectives not easily found in quantitative research. Here, the inclusion criteria of the informants allowed us to develop a deep understanding of the subject of the study.

Our results are consistent with others that have reported that students identify themselves as engaging in dishonest conduct because of the pressures imposed by the demands of the curriculum, which includes inflexible requirements that must be completed to graduate (16, 17, 22). The curriculum in our institution, which delays, in some cases, students a full year, encourages dishonest behaviour in students who hope to avoid the economic impact associated with an additional year of study. In contrast, students noted that courses with clinical activities did a good job of promoting respect and responsibility. However, some believe that this development of responsibility occurs via competition and is weakened through the example of some teachers who engage in irresponsible conduct, such as being late to the clinic, delaying the delivery of assessments and leaving a group of students unsupervised in the clinic for excessive periods. In this context, our results are consistent with a study that showed that the irresponsible behaviour of teachers diminishes the ethical conduct of students because the students learn almost through the examples present in their environment (23). Moreover, there is consensus that

amongst the most powerful instruction existent in dental schools regarding ethical practices is that which is modelled by the behaviour of members of the faculty (24). According to this, an obligatory mentor programme for dental students in Sweden has shown that ethical issues are amongst the main topics discussed between mentors and mentees (25). The opinions that teachers expressed about the practice of teaching ethical commitment are consistent with several publications that have noted that the ethical component in dental education is weak (2, 13–15, 26, 27). This is because many dental curricula are constructed with only a few hours of theoretical coursework and do not include appropriate methodologies to instil in students the importance of ethical behaviour in real situations. If ethical components are not formally included in the curriculum, they cannot be formally assessed in students' behaviour.

A comparison of the informants' perceptions regarding their ethical commitment in the honesty and tolerance categories shows that both groups agree that these values are not being promoted or included in the programme at the school. With regard to honesty, it has been reported that academic integrity is a value that has been gradually decreasing in students (14, 16, 22). In dental schools in the United States and Canada, this trend is usually attributed to the pressure exerted by the curriculum (16, 22). The environment within the institution, in which no penalties exist for those with dishonest attitudes, encourages students to question whether it is worth engaging in ethical conduct, as those who do not generally receive penalty, or if they do receive a penalty, it is weak (23). In addition, the low commitment of both students and faculty members, especially in denouncing and punishing dishonest behaviour, does not help to create an atmosphere of academic honesty (28, 29).

Regarding tolerance, our results showed that students and teachers perceive it as a failure in training, as it does not often occur in intra-faculty relations. This may be related to the inflexibility shown by important academics of our faculty, who have the perception of an 'absolute truth' in a particular topic.

In the categories of respect and responsibility, students said that the curriculum provides an adequate experience. This opinion contradicts the faculty members, who believe that these qualities are generally not imparted to the student. These differences of opinion may be due primarily to the students' perception that the imposition of certain standards related to schedule adherence and programme does eventually lead to their learning to be responsible. In this study, most scholars feel that students, rather than internalising the value of respect, simply obey rules and regulations for fear of being punished and question the real integration of these values into students' future professional conduct.

Dharamsi et al. have elaborated on the topic of dentist's social role and social responsibility exploring how dentists explain the concept of social responsibility and its relationship to issues affecting access to oral health care by vulnerable segments of the population. They concluded that students who experience the prevalence of social inequalities in health are more likely to want to address disparities and to realise why society recognises and accords dentistry 'a special social, moral and political status as a profession'. The value of social

responsibility springs forth from here. It is tied to a social conscience, and it connotes an ethic of care and trust beyond individualism and private interests (5, 6, 30). The students' opinions about teamwork are consistent with several studies that have suggested the need to expose students to greater interaction with other health disciplines, as dental students currently come away with the concept of individual and solitary work over the dental chair (17, 31, 32). The communication with and concern for the patient category, most students believed that they were concerned about patients but felt apprehensions that this concern may have been because the patients represented academic requirements to be completed as part of the programme. This feeling has been described in the literature (9, 15, 17), with the aim of promoting learning experiences that enable students to develop a genuine concern for their patients rather than seeing them as tools for academic achievement that they will later use in their professional practice to increase their status. Students also expressed that the delivered education does not give them the psychological and social tools to communicate with and relate well to patients and this is also consistent with what has been described in the literature supporting the necessity to develop these abilities as an essential part of the dental and medical programmes (32–35). In the solidarity category, our results are in agreement with those studies that have shown dental students to be competitive and individualistic (1, 36). The attitudes of teachers contribute to these attitudes in students because they emphasise only those with high scores and achievements and do not give equal recognition to students who exhibit behaviours of social solidarity (9, 10). Students also attributed their competitiveness to the value placed on qualifying for acceptance into graduate programmes (1, 9–11). When analysing the opinions of faculty members about the practices of teaching social responsibility, our results are consistent with those described in dental schools in Brazil where there is no emphasis on the social role and responsibility of the dentist as a community member (1). In addition, diverse strategies have been reported in the United States to improve these aspects, and specially, the relationship between academic institutions and the community, highlighting the necessity to establish a new social contract that ensures the development of these skills in the students (2, 3). Courses aimed at developing this value by adding early community service experiences are implemented in curricula in the United States and Canada (31, 32). In a similar approach, the ADEE, in a global consensus workshop, has defined the necessary profile and competencies for a dentist in Europe and an ethical behaviour and social responsibility are amongst the main competences they should have (7). After this consensus, the ADEE strongly recommended an integrated approach to education in ethics and professional conduct to dental students through Europe (37).

Finally, all the informants believed that training in the career of dentistry is very individualistic and highly competitive. They attributed this atmosphere to the fact that, from the beginning of patient care, students must compete each other to get patients who will complete clinical programmes. In our context, patients are becoming scarce. Another reason put forward by teachers to explain individualism and the isolation of dental training is the lack of interaction in joint activities with other health disciplines at the university.

Study limitations

Our sample size was small and represents the views of members in only one dental school. However, we believe that owing to the quality of the informants and the information gathered, we are able to describe some important attributes needed for future curriculum discussion and design that can be considered to be applied by other dental schools.

Future directions

This study reveals the need to reassess our current curriculum and teaching practices. We are currently implementing a deep transformation of the curriculum that includes the development of generic skills, highlighting the ethical commitment and social responsibility. This process has considered the following elements based on this work and other original studies:

- Real and transversal representation of generic skills over to the full curriculum. We are considering 10% of total curriculum hours to ethics courses, citizenship and culture with methodologies that allow the student's critical analysis and the reflection of situations in context (23).
- Working to achieve an environment of academic and professional integrity of all members of the faculty: students, academics and collaboration staff (24).
- Patient's care will be provided by in comprehensive care clinics, which will not only emphasise the concept of improving oral health status as a whole, but will also decrease the risk of seeing the patient as a disassociated object (2).
- Early extramural experiences, from the early years of training in community hospitals, polyclinics, rural villages, etc. This will enable the contact with other students in health care education together with the approach to different socioeconomic and cultural realities (6, 28).

We believe that these measures, amongst others, will improve the impact of the curriculum of dental schools in training professionals with an ethical behaviour and social responsibility to efficiently contribute to the improvement of oral health and the quality of life of the population.

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Conflict of interest

The authors have no financial conflict of interest.

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