

Mentors, Students, and the Undergraduate Medical Course: A Virtuous Circle

Tutores, Alunos e o Curso de Graduação em Medicina: um círculo virtuoso

Patrícia Lacerda Bellodi¹

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PALAVRAS-CHAVE:

- Tutoria
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ABSTRACT

Background: Mentoring Programs have been developed in several medical schools, but few studies have investigated the mentors' perspective. **Purposes:** To explore mentors' perceptions regarding their experience. **Methods:** Mentors at a medical school were invited to participate in an in-depth interview including questions on satisfaction, difficulties, and perception of changes resulting from the program. **Results:** Mentors' satisfaction and difficulties are strongly associated with students' involvement in the activity. Mentors believe changes observed in students were more related to life issues; for some mentors, there is no recognition or awareness of the program. However, most of the mentors acknowledged important changes in relation to themselves: as teachers, faculty members, and individuals. **Conclusion:** Attendance is crucial for both the mentoring relationship and strengthening of the program. Students involved in the activity motivate mentors in teaching and curriculum development, thereby creating a virtuous circle and benefiting undergraduate medical education as a whole.

RESUMO

Contexto: Programas de Mentoring têm sido desenvolvidos em várias escolas médicas, mas poucos estudos investigam essa experiência sob a perspectiva dos mentores. **Objetivos:** Explorar a percepção de mentores a respeito de suas experiências ao longo do tempo. **Método:** Mentores de uma escola médica foram convidados a participar de uma entrevista em profundidade que incluía questões sobre satisfação, dificuldades e percepção de mudanças resultantes do programa. **Resultados:** A satisfação e as dificuldades relatadas pelos mentores mostraram-se fortemente ao grau de envolvimento dos alunos no programa. Os mentores acreditam que as mudanças observadas nos alunos estão mais relacionadas a questões dessa fase de vida e, para alguns, ainda não há reconhecimento do programa pela instituição. Por outro lado, a maioria dos mentores reconhece importantes mudanças nem si mesmos: como professores, como membros da faculdade e como pessoa. **Conclusões:** A adesão dos alunos mostra-se crucial tanto para a relação de Mentoring quanto para a própria consolidação do programa. Alunos envolvidos com a atividade motivam os mentores para o ensino e o aprimoramento do currículo, criando assim um círculo virtuoso, que beneficia o curso e a formação médica como um todo.

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INTRODUCTION

The master-apprentice relationship, characterized by proximity and individualized learning, has declined in the context of medical education. The large numbers of students in learning environments and fragmentation of knowledge have decreased the opportunities for meaningful interactions. Anonymity, distance between teachers and students, and heavy competition among colleagues characterize the interpersonal relationships at medical schools today^{1,2}.

This scenario has encouraged the development of Mentoring Programs in many medical schools³⁻⁷.

As a more experienced person, a mentor can contribute to the personal and professional development of a young medical student by providing support and orientation, as a role model, helper, and friend^{8,9}. Psychosocial support and career development are the two classic functions of mentoring¹⁰, and mentors are able to act as critical references during medical students' journey, thereby fostering their well-being and personal and professional growth.

There is a general acknowledgment that Mentoring benefits the mentors themselves¹¹⁻¹³. However, a recent literature review reported that few studies investigate the mentors' difficulties in the relationship with students and seldom address the mentors' perceptions of their own personal development¹⁴.

A recent exception is the study by Stenfors-Hayes et al.¹⁵ on the Mentoring program at the Karolinska Institute Teaching Hospital, analyzed from the mentors' point of view. All 83 mentors answered a questionnaire and 10 were interviewed. For most respondents, it was gratifying to be a mentor. Mentoring enhanced their relationship to students and fostered reflection on their values and practices.

The Mentoring Program at the University of São Paulo School of Medicine (FMUSP) has been available for all the school's 1,080 students since 2001¹⁶.

The program aims to improve contact between professors and students, promoting exchange of experiences among students, following student development during undergraduate medical training, identifying problems, and integrating academic and personal issues in student life.

FMUSP mentors are responsible for monthly meetings with a group of students (one mentor per group of 10-12 students, randomly assigned, at least one from each year). Mentors must be either faculty members or staff physicians at the teaching hospital, involved in undergraduate teaching. They must also have good rapport with the students. Mentors receive initial training and are supervised over time. Mentors must display ethical professional behavior in order to serve as role models for students.

If students attend at least 70% of the program meetings, they receive credits and a certificate, and the mentoring program is registered in their resumé. Although they do not choose their mentors, students are allowed to switch groups when they lack affinity with the mentor or classmates.

In order to better understand mentors' perceptions of their experience, all mentors at the FMUSP Mentoring Program were invited to an in-depth face-to-face interview. This study aims to describe and discuss their level of satisfaction, difficulties, and perception of changes resulting from the program.

METHODS

In-depth qualitative interviews are an important method for producing rich and detailed data on complex social, behavioral, and educational issues by exploring the meaning of life experiences from the interviewee's own perspective. In-depth interviews are less structured and may cover only one or two issues, but provide much more detailed information. The researcher needs to remain open to the concepts and variables that emerge spontaneously, and the interviewee participates in extracting meaning from the data¹⁷⁻¹⁹.

Four years after the program was launched, all 80 mentors at the FMUSP Mentoring Program were interviewed using this qualitative methodology.

The interviews involved open-ended questions and contained items exploring mentors' perceptions towards satisfaction with the mentoring program, difficulties, and changes resulting from the program over time.

The interviews were conducted with each mentor privately and lasted 30 to 90 minutes. Before each interview, the mentor's personal and professional data were verified (name, age, gender, and specialty) to establish rapport. Data on program participation was also confirmed (duration of the mentor's participation, number of meetings held with the students, and student attendance).

The interview began with the question "Are you happy as a mentor? Why?" Mentors were then asked "When did you really feel like a mentor?" and "What kinds of difficulties have you faced as a mentor?"

Mentors were asked whether they had noticed changes in the mentoring program, with the question "Have you noticed any changes in the students, yourself, or the medical school due to the Mentoring Program?"

Answers were recorded during the interview (note-taking) and data were submitted to qualitative analysis. After a free-flowing reading of the collected material, answers with similar content were grouped into categories for the specific

research questions (thematic analysis). The number of respondents was used as a measure of emphasis of the different categories. Mentors' quotes are used to illustrate and substantiate the findings²⁰.

Due to ethical issues, the participants' rights and protection were assured and each mentor signed a written consent form. The study was approved by FMUSP Research Ethics Committee (CAPPEsq number 058/11). Participants were informed as to the nature of the study, and the interviewees' anonymity was guaranteed. Mentors were specifically assured that answers from their interview would not have negative consequences for their continuity in the program.

RESULTS

Mentors' Personal and Professional Data

Of the 80 interviewed mentors, 56 were males and 24 females, accurately reflecting the overall gender breakdown in the medical school faculty. Age ranged from 30 to 60 years. The group included different medical specialties: internal medicine and subspecialties, surgery and specialties, pediatrics, psychiatry, orthopedics, gynecology-obstetrics, ophthalmology, otorhinolaryngology, anesthesiology, pathology, forensic medicine, and preventive medicine.

As for academic status, the group included 6 full professors, 18 associate professors, 46 teachers with doctoral degrees, and 5 teachers with Master's degrees.

Most of the mentors (74/80) had been in the program since the beginning in 2001, and while 6 had joined the group more recently.

According to 51 mentors, student attendance over time was uneven; according to 10 mentors, the adherence rate had dropped, and only 5 mentors reported that student participation had increased. Student attendance was considered stable by 15 mentors.

Despite of the reported differences in attendance, 60 mentors considered the program excellent or good, and 74 stated that they intended to remain in the program.

Interview Themes

I. The mentoring experience

I.I Mentor Satisfaction

According to mentors, satisfaction is closely associated with student involvement in the program. Forty-seven (47) mentors stated that when the mentoring group is present or when the participating students are active and interested (even when few in number), the activity is motivating and relevant.

Yes, I'm very happy!

"Yes! I really like the contact with students. I learn a lot. Mentoring motivates me!" (Mentor 41)

"The relationship with students is great. It's a fantastic experience!" (Mentor 17)

"Yes, because I made a natural connection with the students. They talk to me now as if I were an old friend." (Mentor 34)

Thirty-three (33) mentors mentioned they were partially satisfied or dissatisfied.

These mentors feel frustrated when students fail to show up, and although they appreciate the program's objectives, their satisfaction decreases significantly. Mentors are disappointed because the relationship to students was not as deep as expected

I'm happy, but...

"Yes, I like the program. It can be an effective way of getting closer to the students, but student involvement is less than expected. I thought having a teacher available to help students would make a difference to them." (Mentor 7)

"I'm happy to be a mentor, but not with my mentoring group attendance. On the other hand, when the students come, even when there are few of them, I feel really satisfied." (Mentor 49)

"I have ups and downs. It depends, but when they come, I feel happy after the meeting. It's nice." (Mentor 47)

I.II The mentor's role

According to most mentors (57), feeling like a real mentor involves two experiences: sharing their experience, providing good advice, and helping in decision-making and when students seek mentors spontaneously, even if on rare occasions, outside scheduled meetings:

Being helpful by sharing experience

"When we had discussions on ethical issues and the uncertainties of the profession, I shared my 'old-time' experience and was able to help students with some of their anxieties." (Mentor 61)

"Especially regarding the residency exams, we understand and experienced the same anxiety, so we can help them [...]" (Mentor 69)

"I encourage students to go to the sports facilities, and I say that playing football is as important as an extra point on their resumé! I remember my experience: I was always at the uni-

iversity sports contests to cheer for our team! Today, the friends I made on these occasions help me discuss my patients.” (Mentor 77)

When students turn to the mentor outside formal meetings

“I think [it’s good] when a senior student asks for a letter of reference and says, ‘You’re the one that knows me best here.’” (Mentor 21)

“It’s especially [gratifying] when they come to me outside the regular scheduled meeting. When I was sick, they called me at the hospital and asked, ‘Is everything OK?’ Later they visited me at home!” (Mentor 42)

“After the meeting a student asked me: ‘Can I speak with you? Only to you! I’m not sure if I’m following the course well. ‘What about when I become a resident?’ He was only in the second year[...]’.” (Mentor 65)

II. Facing Difficulties

II. I Time

Regardless of their level of satisfaction with the program, nearly all of the mentors reported difficulties in establishing the mentoring relationship over time. Some mentors (23) mentioned lack of time for participating in mentoring activities on a regular basis, meeting students or participating in supervision.

Lack of Time

“Most mentors are involved in several activities. We have more interest than available time for Mentoring.” (Mentor 77)
“Supervision is really nice, a relaxing moment. The problem is lack of time.” (Mentor 58)

II.II Student Attendance

The main difficulty highlighted by many mentors (42) is low student participation. Mentors have difficulty understanding the reasons for students’ absence and in turn feel insecure in relation to themselves and their role.

Low Attendance

“First and second year students always attend. Students from later years show up occasionally. I once had a meeting with only two students. On another occasion, no one came. I felt very unhappy.” (Mentor 1)
“Thirty percent attendance is very low for such a well-organized program! I feel like I’m ‘preaching to the choir’[...]” (Mentor 29)

Reasons for low attendance

“Attendance is low. Why does it happen? Is it because of me? Is it because of the group, or the place? I don’t know what to do to change this!” (Mentor 2)

“I’m concerned about my role. I’ve made several changes to the goals, days, and schedules. I invited them to my home. I organized a farewell party for the graduating class, but they didn’t come! Is the program wrong, or is it the students?” (Mentor 31)

III. Evaluating changes

III.I Students’ changes

Most mentors (42) believe it is difficult to perceive changes in students based exclusively on mentoring. According to the mentors, changes observed in students had more to do with life-related issues. They recognize that students are young and are therefore undergoing a natural process of transformation.

Students change naturally...

“Students change, but not due to Mentoring. They’re growing, they’re experiencing changes. Their shyness decreases a little, I think. They change so much at this age [...]” (Mentor 33)
“It’s possible to notice an evolution, but I don’t know if it depends on me or on mentoring. I don’t know how to evaluate my exact role in this natural process.” (Mentor 57)

However, there are mentors (36) who acknowledge the positive effects of mentoring on students’ academic and personal life. For these mentors, Mentoring clearly helped some students expand their friendships and engage in scientific and social opportunities. In some cases, it even helped students persist in medical school.

Relevant Changes Resulting From Mentoring

“I have a student in my mentoring group who refused to take part in the University social events. He had a conservative position towards family and friends. Now he participates in sports and social activities and also develops projects based on discussions held in the meetings.” (Mentor 37)
“I had a student who wanted to drop out in his freshman year. He claimed he didn’t see the need for the subjects and asked, ‘Why do I have to study these things?’ Then I answered, ‘Let’s imagine that tomorrow you have a patient like this...’. I tried to provide him with real-life knowledge. He enjoyed the course more during the second semester!” (Mentor 60)

III.II Mentors' changes

Most mentors (69) believe they have changed: as teachers (knowing better the students' lives, understanding how they think and getting closer to them), as members of the faculty (perceiving the school as a whole and following the curriculum development) and also as people (rethinking about their relationships, personal values and increasing self-insight).

I learned a lot (as a teacher)

"Today I know university students better. I feel more secure working with students and more satisfied with my relationship to them." (Mentor 3)

"Mentoring significantly increased my wish to be a medical professor. I always believed that being a teacher is more than just giving classes." (Mentor 14)

I learned a lot (as a member of the university)

"I take great advantage of mentoring. It enriches me. I discovered the university that I belong to. I want to live this experience. I strongly believe in mentoring." (Mentor 39)

"I have a better understanding of the university. I see things now that I didn't see before because I was isolated." (Mentor 19)

I learned a lot (as a person)

"I had a very strict personal education. With mentoring, I learned how to open communication channels." (Mentor 9)

"I don't know how much I'm giving, but I know I'm receiving on all levels. I've received a lot and learned a lot. It's a privilege to be a mentor! I feel younger, renewed, and more hopeful." (Mentor 4)

III.III Changes in the medical school

For some mentors (41), the mentoring program spawned institutional changes, especially because many more people are aware of and currently debating students' problems. According to others (39), medical school does not value the program, nor is it impacted by the activity.

I think so...

"Yes, a lot of people are being influenced by the mentoring program." (Mentor 40)

"Problems are discussed more often because of the mentoring program. Problems are no longer limited to the student level or the Dean's Office." (Mentor 23)

"Yes, there is a silent revolution, with more people getting to know each other deeper and better." (Mentor 70)

"The undergraduate course is being discussed in greater depth. Teachers who are mentors feel more involved in the University." (Mentor 16)

I don't think so...

"No, there are many people who don't know what it means to be mentor [...]" (Mentor 42)

"No, the school hasn't accepted mentoring yet [...]" (Mentor 65)

"No, it would make no difference if the Mentoring Program ended ... (Mentor 38)

I'm pessimistic about medical school[...]" (Mentor 62)

Discussion and Conclusions

This study investigated the experiences of mentors in an undergraduate medical course by inviting them to answer an in-depth interview focused on their level of satisfaction, difficulties, and perception of changes over time.

The interviews showed that both the satisfaction and difficulties experienced by mentors are closely related to the degree of student involvement in the activity.

When students attend and participate actively, the mentors' sense of achievement is high and increases further when students come to them informally for advice and help. However, when students are absent, mentors are discouraged and feel doubts about their own role. For them, it is difficult to understand students' reluctance to participate in the meetings and find ways to motivate them to attend.

Rather than demands for attention or affection, the mentors' answers show that the mentoring relationship depends on both parties. A mentor's power to help depends on student involvement.

As stated by Rhodes²¹, the potential of a mentor to engage the mentee in more satisfied interactions grows when the young actively respond to the relationship. Mentoring is a dynamic and complex process¹³ with a particular chemistry²². Other studies¹⁵ have also shown that mentors are disappointed in the relationship with mentees because it did not become as deep as they had hoped. It is important that mentees show that they value the mentor's effort, and that they be proactive. Key characteristics of youth who participate in successful mentoring relationships are the ability to communicate needs and to be committed to the activity^{23,24}.

Most mentors interviewed in this study acknowledged that changes observed in students were due to natural changes in this phase of life, i.e., late adolescence and early adulthood.

Considering that high expectations of success can endanger the future of a mentoring relationship, this realistic perception of the program's influence is a key aspect to be considered by mentors.

Mentoring is not the only source of support students have, and it is extremely difficult to isolate its influence. Crediting changes to mentors only can be an arrogant assumption, for it ignores parents and other adults who guide young people in their daily lives²¹.

Studies on mentoring programs indicate need for "mentoring the mentors" by offering training and support to the performance of their task^{11,25}. Understanding when, how, and how much mentors can be helpful to their students may be an important point to be addressed in mentors' development.

Considering the effects of Mentoring on medical school, some mentors felt that the institution still fails to properly value the activity, nor is the school impacted by it. According to these mentors, there is not enough awareness of the mentoring program's importance. Other mentors, however, felt that the activity allows the discussion of issues which were formerly restricted to the Dean's Office: according to these mentors, the mentoring program enables more people to access these problems, thereby allowing timely intervention.

By recognizing that the school still needs to assimilate the mentoring culture, mentors show maturity and self-criticism regarding the program's possibilities. A successful relationship is known to require more than simply pairing mentors and mentees. Institutions must provide recognition for mentoring and resources to assist mentors and mentees in an environment that allows the relationship to develop²⁶.

If the students' transformations due to mentoring were perceived as a modest effect of the activity, mentors' acknowledgment of changes in themselves was present in most reports.

Mentors perceived that they developed skills — especially communication — and acknowledged that contact with young students is renewing in a personal and professional way. Being close to students allows mentors to better understand their needs and characteristics, helping them become more secure mentors and further motivating them as teachers.

These results corroborate other studies claiming that mentoring is a "two-way street", benefiting students and mentors alike: mentors report greater career satisfaction and a revival of creative energy, besides fostering new ways of thinking about their own practice through contact with students^{27,28,13,15}. Especially in the University, mentoring can be

considered one of the most rewarding activities in academic life, a period in which teachers, when guiding students, also reassess own issues¹².

This is a valuable finding with relevant educational impact: students committed to mentoring enhance their mentors' teaching role and help them become powerful agents of transformation in the institution.

In a virtuous circle, when improving their teaching, motivated mentors are able to benefit students, the undergraduate medical education, and even the quality of work of future doctors.

Mentoring can provide an important link between teaching and clinical practice. As highlighted by Freeman^{29,30}, when it is part of a supportive, internal, and non-hierarchical network, it can influence the professional culture itself.

In an appropriate environment that supports mentoring, students and mentors are able to establish meaningful relationships that will positively influence their future, both as persons and as professionals, far more than they imagine during the actual mentoring meetings.

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CONFLICT OF INTEREST

The author reports no conflicts of interest.

CORRESPONDING AUTHOR

Patricia Lacerda Bellodi
Rua Dona Luiza Júlia, 12, apto 62
Itaim Bibi — São Paulo
CEP. 04542-020 SP
E-mail: ptbellodi@uol.com.br