

Evaluation of training and professional expectations of surgery residents

Avaliação do treinamento e expectativas profissionais em residentes de cirurgia

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A B S T R A C T

Residency programs, especially in surgery, have been undergoing constant changes, not only in our country, but also internationally. Due to the depreciation of medical specialties and their lowering compensation, expectations and profile of residents in surgical fields are changing. The assessment of attitudes, experience in training and professional expectations among residents is an important topic. Recent international studies published in the area demonstrate this fact. It is worth noting the absence of similar studies in our country, as well as others. This study aims to assess the residents of the area of surgery, through a questionnaire, their attitudes, experiences during training and professional expectations. We applied and analyzed questionnaires adapted and translated into Portuguese to 50 professionals of both sexes and different years of residence. The results of this study showed high satisfaction with the specialty, but large financial concern and conflicting opinions about the future of the specialty.

Key words: Evaluation. Surgery. Internship and residency.

INTRODUCTION

Residency programs, especially in surgery, have been undergoing constant changes, not only in our country, but also internationally.

Due to the depreciation of medical specialties and their lowering compensation, as well as the search for quality of life, expectations and profile of residents in surgical fields are changing. Also, adverse conditions often alter the attitudes of not only residents but also tutors, making the assessment of attitudes, experience in training and professional expectations of residents an important topic for the correct planning of education and training in surgery.

This article evaluates medical residents in the area of surgery by questionnaires accessing their attitudes, experience in training and professional expectations.

METHODS

There were 50 residents of both sexes from the area of the surgical residency program at the São Paulo Hospital, Paulista Medical School, from several levels of

experience (years of attendance), who voluntarily participated in the study. The interviews were conducted by a resident, co-author of this work, in order to avoid constraints and biases of authority.

We used the questionnaire from Yeo *et al.*¹, translated and adapted to Portuguese, whose response options are: agree, Indifferent and disagree, taking into account randomly oriented human, technical and professional dimensions (Tables 1, 2 and 3). The questionnaire was not identified in sheets and responses were kept anonymous.

The study was approved by the Ethics Committee in Research of São Paulo Federal University (1650/09).

RESULTS

We evaluated 41 male and 9 female residents, median age 27 years (range 24-32). They were residents of the 1st, 2nd, 3rd, 4th and 5th years, respectively 16, 17, 11, 5 and 1 individuals.

The answers to the questionnaire are shown in table 4.

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Table 1 - Human Dimensions.

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1. As a resident, my opinions are important
 2. To be a good surgeon, one must abandon sensitivity
 3. I like to come to work
 4. I've thought of leaving the program
 5. I'm happy when I'm working
 6. I give myself so much that I'm afraid to hurt people
 7. I'm not happy with the personality that takes to be a surgeon
 8. The working hours are causing family problems
 9. The work-related stress is causing family problems
 10. I'm generally pleased with my residency program
 11. I really care about my patients
 12. I get on well with my fellow residents
 13. I am very pleased to work with patients
 14. I feel that I fit well in my program
 15. I am committed to finishing the residence
 16. I like to operate
 17. I'm concern about harming patients
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Table 2 - Technical Dimensions.

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1. I'm happy with my residency educational program
 2. I am pleased with the surgical volume of my residency
 3. The program provides a person to talk if I have problems
 4. I feel I can turn to the preceptors if I have difficulties in the program.
 5. I feel I can turn to the preceptors when I have difficulties in attending the patients.
 6. I do not feel respected by preceptors
 7. I feel uncomfortable with some ethical decisions made by certain preceptors
 8. I feel my surgical skill is appropriate for my level
 9. I am concerned with not being able of doing myself procedures before terminating the residence
 10. My preceptors are going to think badly of me if I ask for help to do a procedure
 11. My preceptors are going to think badly of me if I ask for help if I do not know how to treat a patient
 12. I'm concerned about performing poorly in front of more experienced residents
 13. I'm concerned about performing poorly in front of the preceptors
 14. The number of surgeries has helped me develop my skills
 15. If I have a problem I can count on other residents to help me
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Table 3 - Dimensions Professional.

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1. Training in surgery is very long
 2. The cost of training is not worth it to me
 3. I'm concerned about the specialty "surgery" becoming obsolete
 4. I'm concerned that other specialties may perform the procedures that I do
 5. The modern surgeon must have a especialty to be successful
 6. Surgeons do not earn as much as they used to
 7. I'm concerned about the high cost of professional insurance (malpractice).
 8. One of the factors that led me to be a surgeon is the possibility of financial gain
 9. Each year the expectation that I will earn less money as a surgeon after the residency increases
 10. I'm concerned about making money as a surgeon.
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DISCUSSION

As already mentioned, the profile and attitudes of residents in the surgical area is clearly changing. Multiple

studies¹⁻⁵, all North American, demonstrate this fact. Motivated in the evaluation of local residents, a group of academic surgeons strove to reproduce the work published by Yeo *et al.*¹. It is multicenter and international, with

Table 4 - Answers to the questionnaire.

Questions	I agree	indifferent	disagree
1. I am generally pleased with my residency program	38	6	6
2. As a resident, my opinions are important	24	16	10
3. The program offers a person to talk to if I have problems	19	13	18
4. To be a good surgeon I must abandon sensitivity	2	2	46
5. I feel that I can resort to preceptors if I have difficulties in the program.	30	17	3
6. I feel that I can resort to preceptors if I have difficulties attending patients.	39	10	1
7. I like to come to work	40	8	2
8. I am satisfied with the teaching program of my residence	19	17	14
9. I am satisfied with the surgical volume of my residence	10	10	30
10. Ever thought about quitting the program	9	2	39
11. Don't feel respected by preceptors	10	10	30
12. I'm happy when I'm working	36	12	2
13. Training in surgery is too long	16	11	23
14. I feel uncomfortable with some ethical decisions made by certain preceptors	19	20	11
15. I give myself so much that I'm afraid to hurt people	2	18	30
16. I feel that my surgical skill is appropriate for my level	31	13	6
17. I am not be able to do procedures alone before finishing the residence	20	13	17
18. I'm not happy with the personality that I have to assume to be a surgeon	4	13	33
19. The working hours are causing family problems	12	13	25
20. The stress of work is causing family problems	10	13	27
21. My preceptors will think badly of me if I ask for help to do a procedure	9	6	35
22. My preceptors will think badly of me if I ask for help if I do not know how to address a patient	5	10	35
23. I really care about my patients	49	1	0
24. I'm concerned about performing poorly in front of more experienced residents	38	7	5
25. I'm concerned about performing poorly in front of the preceptors	43	5	2
26. The cost of training is not worth for me	0	5	45
27. I get along well with my fellow residents	45	5	0
28. I am very pleased to work with patients	44	6	0
29. I feel that I fit well in my program	44	3	3
30. I am committed to finishing my the residence	47	3	0
31. I like to operate	49	1	0
32. I have concerns about harming patients	45	3	2
33. The volume of surgeries has helped me develop my skills	43	5	2
34. If I have a problem I have other residents to help me	42	6	2
35. I'm concerned about surgery becoming obsolete	10	13	27
36. I'm concerned about other specialties performing the procedures that I do	15	14	21
37. The modern surgeon needs to have a specialty to be successful	38	10	2
38. Surgeons do not earn as much as they used to	39	10	1
39. I'm concerned about the high cost of professional insurance (malpractice).	31	14	5
40. One of the factors that led me to be a surgeon is the possibility of financial gain	14	13	23
41. Each year the expectation that I will earn less money as a surgeon after residence increases	18	14	18
42. I'm concerned about making money as a surgeon.	38	10	2

participants from Germany, Austria, Japan, Bolivia, Russia, Colombia, Hungary, Puerto Rico, Brazil and Italy. Hospital São Paulo is the single Brazilian participant. The study is in the process of data collection and writing, the results of the evaluation in Brazil being exposed here. A subanalysis of results based on gender or years of residence was not calculated due to the small number of individuals studied in this branch.

The Brazilian branch was conducted at the Universidade Federal de São Paulo, which is a federal agency under the Ministry of Education. Its teaching hospital is the Hospital São Paulo, which belongs to the Paulista Society for the Development of Medicine, a nonprofit entity constituted by teachers of the University. The Escola Paulista de Medicina was one of the pioneers to implement Medical Residency Programs in Brazil. The Residency was set up following the same design of the programs developed at the beginning of the century in the United States under the inspiration of Halsted and Osler. Since 1957, the Escola Paulista de Medicina maintains and constantly seeks to improve and modernize its medical residency programs, according to medical advances and needs of the society. In the 1960s, the Residency was composed of two basic cycles: clinical and surgical, where there were distributed twenty doctors, 10 clinics and 10 surgeons. The specialties were initiated only in the third year. In the following years, the Residency has become diversified, until the present day, when 64 different programs are offered to 555 residents⁶.

The surgery department has 16 vacancies for general surgery, with two-year program and a prerequisite for the specialties, and 17 of specialties such as surgery of the digestive tract, cardiovascular, pediatric, plastic, thoracic, vascular and urology, with programs of two or three years.

To compare the results obtained from other countries or with the available literature was not the purpose of this study, since such comparisons may be artificial because of the different realities and they will be published in the multicenter study.

Our results show great satisfaction with the surgical career through the questions that assess this matter (numbers 4, 18, and 35 to 42), but high financial concerns and conflicting opinions about the future of the specialty. It should be noted that the questions "like to operate" and "caring for patients", with 49 answers "agree" each, were the most frequent. The questions that assess satisfaction with the residency program showed great response heterogeneity. Interestingly, almost 20% of the respondents have already thought about leaving the program. Other remarkable results are: (1) 76% of young surgeons believe the education with a specialty is essential and only 4% accept the idea that training limited to general surgery is appropriate; (2) a significant number of respondents were concerned with the medical insurance, despite currently limited use in our country; (3) a very high number of dissatisfaction with the ethics of tutors; (4) only 38% of residents are satisfied with the training content of their programs; (5) only 20% think the volume of procedures they participate in is enough; (6) only 60% of residents would use their mentors to solve problems in the residency affairs; (7) 38% of residents deny the presence of a structure for personal support in their programs; and (8) almost half (48%) of residents feel that their opinions have no value in their work environments.

In conclusion, our results show high satisfaction with the specialty, but large financial concern and conflicting opinions about the future of the specialty.

R E S U M O

Os programas de residência médica, em especial na cirurgia, vêm passando por modificações constantes, não só em nosso meio, como internacionalmente. Em virtude da deterioração da valorização e remuneração médica, as expectativas e perfil do médico residente na área cirúrgica vêm mudando. A avaliação das atitudes, experiência durante o treinamento e expectativas profissionais nos residentes é tópico importante. Recentes trabalhos internacionais publicados na área demonstram tal fato. É digno de nota a ausência de trabalhos semelhantes em nosso meio e a raridade em outros países. O presente estudo tem por objetivo avaliar em médicos residentes da área de cirurgia, através de questionário, atitudes, experiências durante o treinamento e expectativas profissionais. Foram aplicados e analisados questionários adaptados e traduzidos para o Português em 50 residentes de ambos os sexos e diferentes anos de residência. Os resultados deste trabalho mostram alta satisfação com a especialidade, porém grande preocupação financeira e opiniões conflitantes quanto ao futuro da especialidade;

Descritores: Avaliação. Cirurgia. Residência médica.

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Received: 20/10/2010
Accepted for publication: 30/11/2010
Conflict of interest: none
Source of funding: none

How to cite this article:

Herbella FAM, Fuziy RA, Takassi GF, Dubecz A, Del grande J. Evaluation of training and professional expectations of surgery residents. *Rev Col Bras Cir.* [periódico na Internet] 2011; 38(4). Disponível em URL: <http://www.scielo.br/rcbc>

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