






Attitudes and experiences during training and professional expectations in generation-y surgical residents

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SUMMARY

BACKGROUND: Residency programs, especially in surgery, have been undergoing constant changes. The profile of residents in surgical fields is changing too since residents are now part of the Generation Y (Millennials). This change in profile mandates a re-evaluation to adapt surgical residency programs. Six years ago, we carried out a study evaluating attitudes and experiences during training, and the professional expectations of residents. This study aims to survey surgical residents to evaluate current attitudes, experiences, and expectations.

METHODS: We surveyed 50 residents to determine professional satisfaction, residency-program satisfaction, future expectations, financial expectations, and correct attitude towards patients.

RESULTS: Our results show that half of the residents are satisfied with the residency program. However, dissatisfaction reaches 40% on surgical volume and 80% on mentorship; 62% of the residents are not confident to perform operations after the residency, the majority believes a specialization is necessary; most residents believe financial compensation will decrease with time, but concerns with reimbursement are low; and most residents are worried about injuring patients, but only two thirds are satisfied working with patients.

CONCLUSIONS: Current residents present lower job satisfaction and more criticism of teaching techniques. These changes compared to previous results match the profile of Generation Y, who is more iconoclastic when compared to previous generations.

KEYWORDS: Internship and Residency. General Surgery/Education. Intergenerational Relationships.

INTRODUCTION:

Residency programs, especially in surgery, have been undergoing constant changes. These changes must consider attitudes and experiences during training, and the professional expectations of residents. Six years ago, we carried out a study evaluating these domains¹; however, the profile of residents in surgical fields has changed. According to McLeod, in her inaugural address to the Society for Surgery of the Alimentary Tract (SSAT)², we are living in

times when the residents are part of Generation Y, also known as *Millennials*, which includes people born between 1982 and 2002. Studying the portrait of this generation helps to understand the attitudes and needs of current residents and, therefore, adapt surgical residency programs to their profile.

This study aims to assess attitudes and experiences during training and the professional expectations of surgical residents.

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METHODS

Surgical residents of a quaternary teaching hospital, from different years of training and specialties, were surveyed with a dedicated questionnaire. Participation was voluntary, and an independent investigator presented the questionnaires in order to avoid authority biases. Questionnaires were not identified and the responses were kept anonymous.

Population

Fifty surgical residents (64% males, mean age 26 years) were surveyed. 80% were junior, and 20% were senior residents.

Questionnaire

We employed an adapted questionnaire by Yeo et al.³, previously translated and adapted¹.

Individuals were asked to agree, be neutral or disagree with forty-two affirmations, taking into account human, technical and professional domains, randomly oriented. Questions were grouped into professional satisfaction, residency program satisfaction, future expectations, financial expectations and correct attitude towards patients.

The questionnaire is presented in Table 1.

Ethics

The project was approved by the local ethics committee and all participants signed a consent form before entering the study. The questionnaire was reused with the authors' permission.

There are no conflicts of interest. The authors are responsible for the study, no professional or ghostwriter was hired.

RESULTS

All individuals agreed to participate.

The answers are presented in Table 1. The main results for the 5 domains are shown in figures 1 to 5.

DISCUSSION

Generation Y comprises individuals born between 1982 and 2002. It is the largest demographic group since Baby Boomers; thus their influence will have an impact on social norms, work, pleasure, and politics. It is estimated that they will account for 50% of the workforce in 2020. This population grew up used to having technology as part of their daily lives,

and many have been raised with extensive parental involvement. They want to make a difference in the world and expect to have meaningful, fulfilling work. They may be impatient and think that they have much to teach older generations, especially when it comes to living a proper life, respecting their health and psychological limits and living a life that makes them happy, regardless of financial success^{2,4-7}.

Generation Y residents follow the same characteristics described above. One would expect a low professional satisfaction in these residents since surgery demands great dedication⁸ and work may be a secondary priority, with life quality and the pursuit of happiness being primary. Indeed, life-work balance is currently an important factor in the decision against surgery as a career after medical school⁹. Our study shows that almost all residents enjoy operating, but less than half are happy at work. Future expectations follow the same ideals. The prospect of surgical specialty is not a big concern among our residents. Curiously, a newspaper article entitled "the generation that found success after being fired" told the stories of young graduates from prominent Universities that were fired or quit their jobs and radically changed their lifestyle to live a simple life¹⁰. Financial expectations are not a motivator to Millennials as well. In our survey, only a third of residents were influenced by good financial compensation when choosing their careers as surgeons and worry about making enough money when finishing residency. Interestingly, not only for this domain but especially on it, the number of answers as neutral is significant.

The education of Generation Y is under constant debate¹¹. Personal beliefs and opinions, conduct in front of patients, dress codes, attitude towards pets, charity, etc. may be more important to create or destroy a mentor-mentee relation than medical knowledge and educational skills. Millennial residents must be taught that hierarchy is important in surgery. Our study shows some concerning issues. Although half of the residents are satisfied with the residency program, more than half have considered leaving it. Interestingly, they are different individuals. 54% of the residents satisfied with the program and 67% of the unsatisfied ones considered leaving the program. Lifestyle issues have been imputed as the main cause for the high number of attrition in surgical programs¹². Our residents, however, did not answer that working hours or stress causes a strain on family life. They were very critical about the program but confident on their performance, as shown by other studies, including Yers as well¹³.

TABLE 1. PROFESSIONAL SATISFACTION, RESIDENCY PROGRAM SATISFACTION, FUTURE EXPECTATIONS, FINANCIAL EXPECTATIONS AND CORRECT ATTITUDE TOWARDS PATIENTS FOR SURGICAL RESIDENTS (N=50)

QUESTIONS	AGREE	NEUTRAL	DISAGREE
1. Overall, I am very satisfied with my program	26 (52%)	12 (24%)	12 (24%)
2. As a surgical resident, my opinions are important	21 (42%)	16 (32%)	13 (26%)
3. The program has support structures in place that provide me with someone to turn to when I am struggling	17 (34%)	22 (44%)	11 (22%)
4. To be a good surgeon you must give up your sensitivity	0	2 (4%)	48 (96%)
5. I feel I can turn to members of the faculty when I have difficulties in the program	24 (48%)	15 (30%)	11 (22%)
6. I feel I can turn to members of the faculty when I am struggling with how to treat a patient	33 (66%)	11 (22%)	6 (12%)
7. I look forward to coming to work every day	27 (54%)	18 (36%)	5 (10%)
8. I am satisfied with the teaching in my program	11 (22%)	24 (48%)	15 (30%)
9. I am satisfied with the operative experience in my program	11 (22%)	20 (40%)	19 (38%)
10. I have considered leaving my program	28 (56%)	4 (8%)	18 (36%)
11. I do not feel respected by my attendings	4 (8%)	21 (42%)	25 (50%)
12. I am happy when I am at work	21 (42%)	23 (46%)	6 (12%)
13. Surgery training is too long	18 (36%)	14 (28%)	18 (36%)
14. I feel uncomfortable with some of the ethical decisions I see some attendings make	25 (51%)	15 (31%)	9 (18%)
15. I am given so much to do that I am afraid I will hurt someone	5 (10%)	17 (34%)	28 (56%)
16. I feel that my operating skill level is appropriate	27 (54%)	14 (28%)	9 (18%)
17. I worry that I will not feel confident enough to performs procedures by myself before I finish training	31 (62%)	8 (16%)	11 (22%)
18. I am not happy with the personality that I must have to become a good surgeon	6 (12%)	12 (24%)	32 (64%)
19. The hours I am working are causing a strain on my family life	13 (26%)	13 (26%)	24 (48%)
20. The stress of my work is causing a strain on my family life	11 (22%)	18 (36%)	21 (42%)
21. My attendings will think worse of me if I ask for help when I do not know how to do a procedure	5 (10%)	8 (16%)	37 (74%)
22. My attendings will think worse of me if I ask for help when I do not know how to manage a patient	10 (20%)	7 (14%)	33 (66%)
23. I really care about my patients	43 (86%)	3 (6%)	4 (8%)
24. I worry about performing poorly in front of my senior residents	36 (72%)	7 (14%)	7 (14%)
25. I worry about performing poorly in front of my attendings	38 (76%)	7 (14%)	5 (10%)
26. The personal cost of surgical training is not worth for me	3 (6%)	6 (12%)	41 (82%)
27. I feel that I fit in well at my training program	43 (86%)	7 (14%)	
28. I get a tremendous amount of satisfaction working with patients	33 (66%)	15 (30%)	2 (4%)
29. I get along with my fellow residents	29 (58%)	18 (36%)	3 (6%)
30. I am committed to completing my general surgery residency training	43 (86%)	6 (12%)	1 (2%)
31. I enjoy operating	48 (96%)	2 (4%)	
32. I worry about hurting patients	42 (84%)	7 (14%)	1 (2%)
33. My operative experience so far has helped me to develop my skills well	35 (70%)	11 (22%)	4 (8%)
34. If I have a problem I feel I can count on other residents to help me out	45 (90%)	5 (10%)	
35. I worry that the field of general surgery is going to become obsolete	7 (14%)	5 (10%)	38 (76%)
36. I worry that other medical professionals will take over some of the procedures that I do	13 (26%)	11 (22%)	26 (52%)
37. The modern general surgeons must become specialty trained in order to be successful	39 (80%)	6 (12%)	4 (8%)
38. Surgeons do not make as much money now as they used to	25 (51%)	21 (43%)	3 (6%)
39. I worry about the high cost of malpractice insurance	29 (59%)	12 (24%)	8 (16%)
40. One of the factors that influenced my decision to be a surgeon was the expectation of good financial compensation	17 (35%)	15 (31%)	17 (35%)
41. Each year my expectations for the amount of money I am going to make when I finish training seem to go down	14 (29%)	16 (33%)	19 (39%)
42. I worry about making enough money as a surgeon	28 (57%)	15 (31%)	6 (12%)

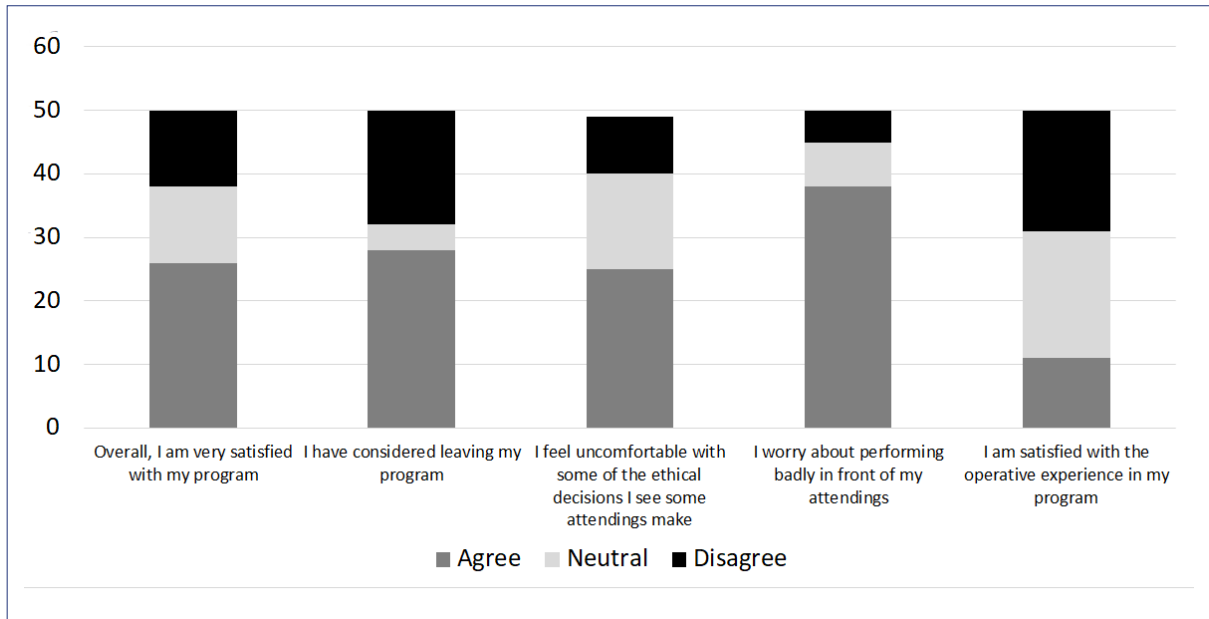


FIGURE 1. MAIN RESULTS FOR “RESIDENCY PROGRAM SATISFACTION” DOMAIN

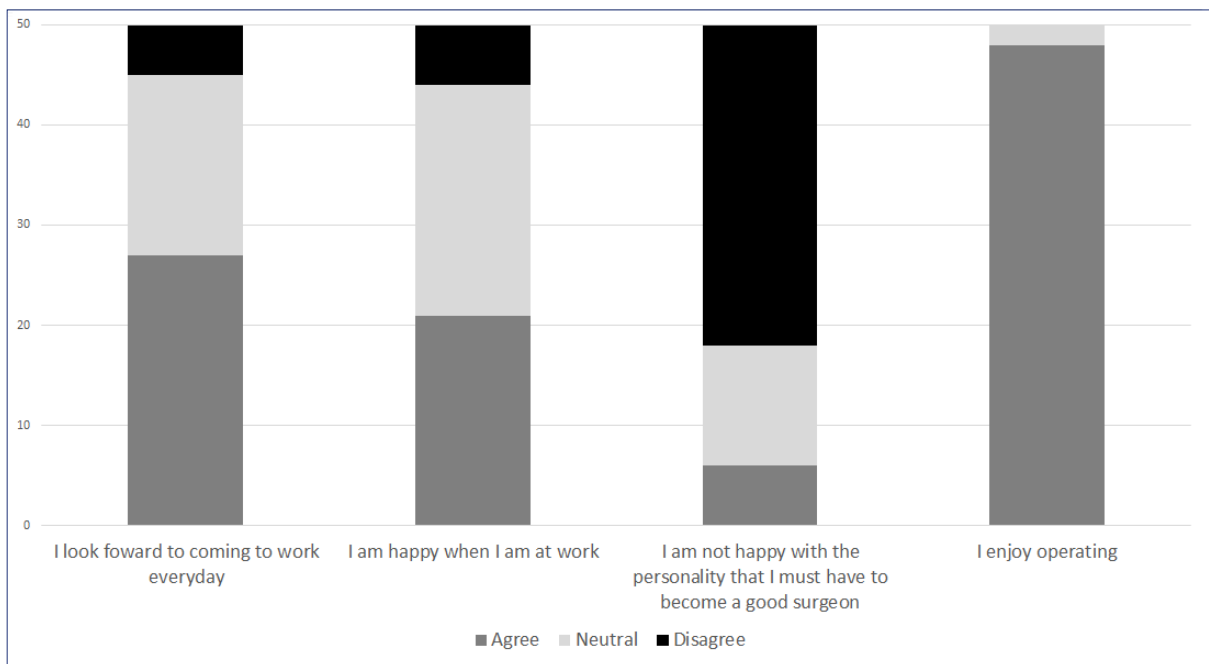


FIGURE 2. MAIN RESULTS FOR “PROFESSIONAL SATISFACTION” DOMAIN

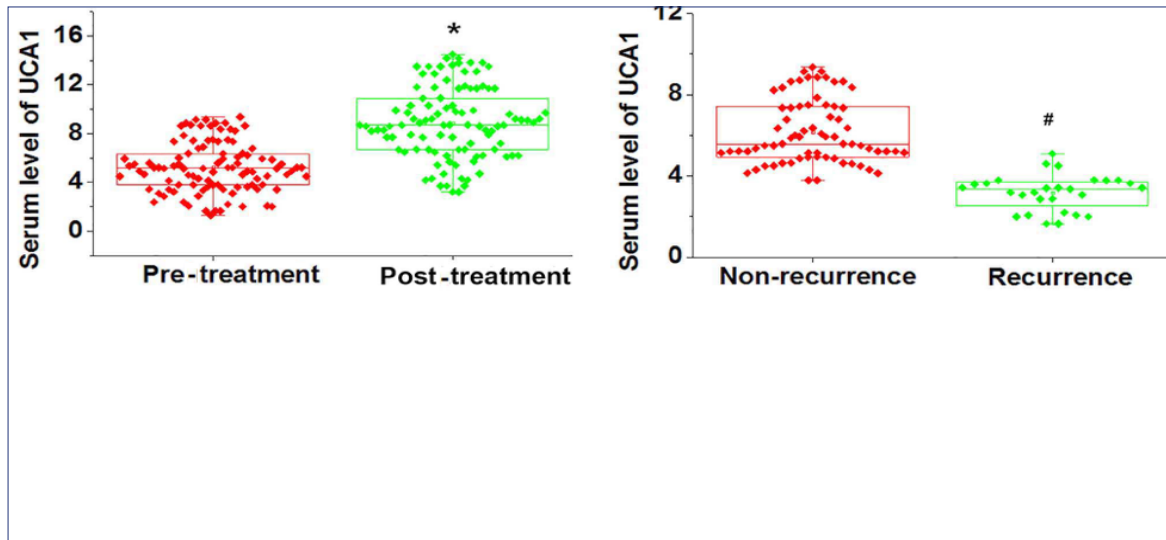


FIGURE 3. MAIN RESULTS FOR "ATTITUDE TOWARDS PATIENTS" DOMAIN

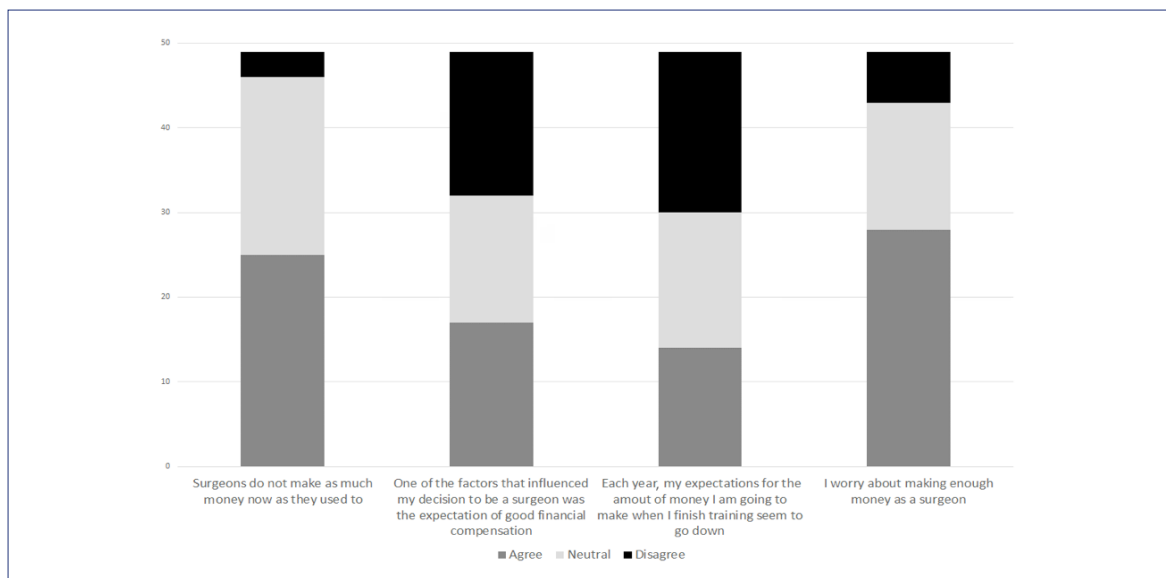


FIGURE 4. MAIN RESULTS FOR "FINANCIAL EXPECTATIONS" DOMAIN

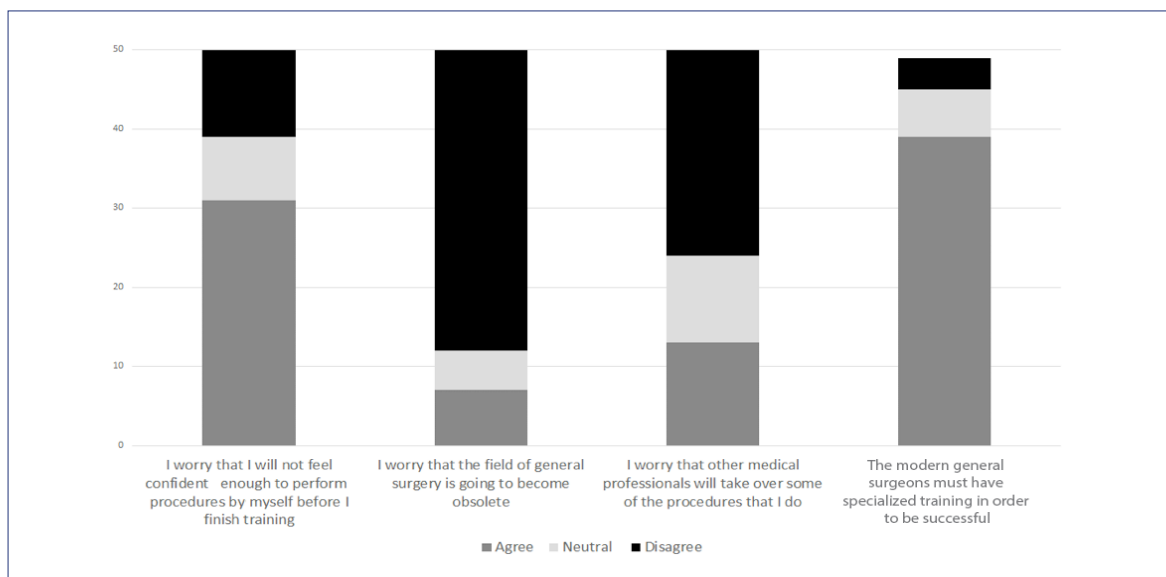


FIGURE 5. MAIN RESULTS FOR "FUTURE EXPECTATIONS" DOMAIN

We surveyed our residents 6 years ago¹. Although most of the residents at that time were Millennials, the world is changing fast. We did notice a change in profile when repeating the same questionnaire. In 2011, residents had great satisfaction with a surgical career but high financial concerns and conflicting opinions about the future of this specialty. Only 20% of the respondents had thought about leaving the program. A USA national survey at that time² showed similar conclusions. Current residents present lower job satisfaction and more criticism of teaching techniques.

Different ideas on how to deal with generation Y residents have been proposed. Among them: (a) provide challenging, constant and variable tasks as they become bored quickly⁴; (b) technology as a teaching and working tool is very attractive to these individuals^{4,6,7}; (c) millennials are independent of hierarchy but at the same time work environment, support and leadership must mimic the helicopter parenting style they are used too⁴; (d) they like to have their opinion heard with instantaneous feedback^{5,6}; (e) teamwork should be encouraged as they are part of the “we” generation^{4,7}; and (f) millennials do not fight for mon-

ey, fame, fortune or status; do not offer these as advantages⁵. In summary, Y'ers must be understood.

Our study has some limitations. First, the results have a regional influence and may not be extrapolated elsewhere, although Generation Y is a worldwide phenomenon. Second, the small number of participants, that was defined by the current number of residents in the program, did not allow a subanalysis of results according to the level of training, different specialties, and gender. As a strength, the manuscript was written by 2 medical students and 1 fellow part of the generation Y, 1 senior surgeon part of the X generation, and 1 senior surgeon part of the Baby Boomer generation to include multigeneration opinions and critiques.

In conclusion, current residents present lower job satisfaction, more criticism of teaching techniques and greater concerns about preparedness for the future. These changes compared to previous results match the profile of Generation Y, who is more iconoclastic when compared to previous generations. Program directors, senior colleagues and all other individuals dealing with new surgical residents must be aware of these new characteristics.

RESUMO

INTRODUÇÃO: Os programas de residência, especialmente em cirurgia, estão em constante mudança. O perfil dos residentes nos campos cirúrgicos também vem mudando, dado que atuais residentes fazem parte da Geração Y (Millennials). Essa mudança de perfil demanda uma reavaliação para adaptar os programas de residência. Este estudo tem como objetivo entrevistar os residentes de áreas cirúrgicas para avaliar suas atuais atitudes, experiência e expectativas.

MÉTODOS: Entrevistamos 50 residentes para determinar satisfação profissional, expectativas em relação ao futuro, expectativas financeiras e atitude correta em relação aos pacientes.

RESULTADOS: A insatisfação com o volume cirúrgico chega a 40% e a 80% com a preceptoria; 62% dos residentes não se sentem confiantes para realizar procedimentos sozinhos após o fim do programa e a maioria acredita que uma especialização cirúrgica é necessária; a maioria dos residentes acredita que os ganhos monetários diminuirão com o tempo.

CONCLUSÃO: Os atuais residentes apresentam menor satisfação com o trabalho quando comparados com os antigos, e são mais críticos quanto ao ambiente de ensino. Essas mudanças seguem as premissas da Geração Y, cujos participantes são mais iconoclastas quando comparados a gerações passadas.

PALAVRAS-CHAVE: Geração Y. Programas de residência. Educação em cirurgia.

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