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## The Choice of Medical Career and Specialty: Aspirations and Influences in Medical Students from University of Campinas, Brazil

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### Abstract

Despite recent efforts to understand the complex process of medical career and specialty choice, medical education community has a low understanding of why, how and when doctors make their choices. This information can be an important tool to identify obstacles and orientation in relation to career counseling among students.

### Key words:

Medical Students, Career choice, Sociodemographic Profile.

### Introduction

Brazil's economic development in recent years has enabled bigger and more equality access to medical education, as well as feminization of its medicine <sup>1</sup> in line with the world trend <sup>2</sup>. In this context, they're necessary efforts to understand the complex process of choice of medical career and specialty throughout graduation. This paper aimed to evaluate influence of sociodemographic factors and aspirations on the choice of the medical specialty and its variation throughout the course.

### Results and Discussion

Years 1, 3 and 6 medical students at University of Campinas were invited to take part in a questionnaire designed based on current literature, which approached subjects such as demographic factors, career preferences and influencing factors. Sociodemographic profile of Y1/Y3/Y6 medical students is composed mostly of a white, female, 20-24 years population, from interior and state of São Paulo. For Y1, there was statistically significant difference for 'pardo' (it can be translated as brown) and black ethnic groups, even though its white student population was bigger, public school provenience, lower maternal schooling (High School) and family income. Years 3 and 6 majority was composed of white academics, with significant difference for yellow population in Y3, coming from private schools (basic education and high school), with further maternal education (Higher Education/Post graduation), a medical first-degree relative and bigger average income.

Most related influence motivations to medical career choice were 'take care of people', 'social responsibility', 'medical career characteristics', 'vocation/aptitude' and 'empathy'. There were significant differences between Y1/Y3 in comparison to Y6 among factors such as 'social responsibility', 'empathy' and 'take care of people'.

In same way, choice for medical specialty modified among the years ( $p=0,001$ ). Public school graduates opted more frequently for 'surgery/orthopedics', 'social medicine' and 'psychiatry', while private school graduates chose more 'anesthesiology', 'medical clinic/neurology', 'pediatrics', 'ObGyn' or 'diagnostic area' ( $p=0,047$ ). Female participants who wanted to marry and have a family mostly chose 'part-time work' and not having this desire performed 'no influence' or allowed 'majority hospital care' ( $p=0,038$ ). Having children aspiration was also related to

'flexible schedule' (1 child), 'part-time work' (2 children) or 'self-organized journey' (3 children), while not wanting children enabled 'bigger work journey' or 'no influence' on medical specialty option.

Medical specialty preferences also modified throughout graduation ( $p < 0,001$ ). In Y1 the most reported specialties were 'surgery/orthopedics', 'psychiatry' and 'I don't know'. Similarly, for Y3, the most desired specialties were 'medical clinic/neurology', 'ObGyn' and 'I don't know'. In other hand, to Y6, the most chosen specialties were 'anesthesiology', 'pediatrics', 'ObGyn' and 'others'.

Table 1. Medical Career and Specialty Influence Factors

Medical Career Choice Motivation Factors		Year 1 N (%)	Year 3 N (%)	Year 6 N (%)	P
Take care of People	Yes	66 (62,3)	51 (56,7)	37 (39,4)	0,004
	No	40 (37,7)	49 (43,3)	57 (60,6)	
Social Responsibility	Yes	24 (22,6)	15 (16,7)	7 (7,5)	0,013
	No	82 (77,4)	75 (83,3)	87 (92,5)	
Empathy	Yes	10 (9,4)	13 (14,4)	3 (3,2)	0,028
	No	96 (90,6)	77 (85,6)	91 (96,8)	
Vocation/Aptitude	Yes	28 (26,4)	31 (34,4)	26 (27,7)	0,428
	No	78 (73,6)	59 (65,6)	68 (72,3)	
Medical Career Characteristics	Yes	34 (32,1)	39 (43,3)	41 (43,6)	0,160
	No	72 (67,9)	51 (67,7)	53 (56,4)	
Influence Factors on Medical Specialty Option		Year 1 N (%)	Year 3 N (%)	Year 6 N (%)	P
Job Security		17 (16,5)	16 (17,8)	7 (7,7)	<0,001
Satisfactory Income		4 (3,9)	10 (11,1)	5 (5,5)	
Status		1 (1)	0 (0)	5 (5,5)	
Direct Patient Contact		20 (19,4)	23 (25,6)	15 (16,5)	
Flexible Schedule		6 (5,8)	3 (3,3)	12 (13,2)	
Personal Reasons		44 (42,7)	23 (25,6)	27 (29,6)	
Professors' Influence/Educational Experience through Graduation		6 (5,8)	14 (15,5)	16 (17,6)	
Parents', Friends' or Health Professionals' Advice		5 (4,9)	1 (1,1)	4 (4,4)	

### Conclusion

Awareness of young doctors' career preferences should help educators anticipate mismatches between the preferences and the necessities of future physicians in each specialty and improve orientation.

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<sup>1</sup> Fiorotti K. P., Renzo R. R., Miranda A. E. Perfil do Estudante de Medicina da Universidade Federal do Espírito Santo, 2007. Rev Bras Educ Med. 2010; 34 (3): 355-62.

<sup>2</sup> Alers M., Verdonk P., Bor H., Hamberg K., Lagro-Janssen A. Gendered Career Considerations Consolidate from the Start of Medical Education. Int J Med Educ. 2014 Sep 13;5:178-84.