

Original Research Article

Career choices, determinants, and need for medical career introduction among medical students

Rizma Adlia Syakurah^{1,2*}, Yai Suryo Prabandari³, Widyandana³, Amitya Kumara⁴

¹Postgraduate Program, Medical Faculty of Gadjah Mada University, Daerah Istimewa Yogyakarta, Indonesia

²Public Health Department, Medical Faculty of Sriwijaya University, Palembang, Indonesia

³Medical Faculty, Gadjah Mada University, Daerah Istimewa Yogyakarta, Indonesia

⁴Psychology Faculty, Gadjah Mada University, Daerah Istimewa Yogyakarta, Indonesia

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*Correspondence:

Dr. Rizma Adlia Syakurah,

E-mail: rizma@azzahragroup.co.id

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ABSTRACT

Background: Having a specific assessment on medical students' career preferences, their determinants for choosing them, and finding whether a career intervention in introducing career choices is considered needed in students' point of view is important to generate an effective and suitable intervention for medical students, and can give appropriate support to the students. This study aimed to discover medical students' career choices and their reasons for choosing those careers to find out their preferences. This study will also try to find their need of medical career intervention.

Methods: The study conducted in cross sectional approach, and self-administered questionnaires was used to obtain the data.

Results: Among 269 students, specialist is still considered as the most chosen career preference (75%) on students first, second and third choices. Followed by general practitioner, and hospital management. There was 7,8% of undecided students, and more than 75% students don't have second and/or third career alternatives. Determinants of career choices with most votes are personal interest, social factors and experiences, with 35% of the students claiming not to know their reason for choosing their career preferences. Almost all the students agreed on wanting some activities to expose themselves to career choices, and they choose their first year, followed by third year and clerkship year as their preferred time to do the activities.

Conclusions: Specialist is still the most sought out medical career, with personal interest and social factors as their main determinants. Career choices are needed to be introduced to students so they can have more options to choose from, and start to explore their career early.

Keywords: Career choices, Career intervention, Undergraduate

INTRODUCTION

Choosing medical career path is one of major decision one will do in their medical academic life. Most of medical students choose specialty as their preferred medical career.¹⁻³ Many factors influence the career specialty decisions made by medical students.³⁻⁶ These factors embrace a wide spectrum of influences and range

from traditional motivators such as individual characteristics or anticipation of specialty-related income, to generation Y's typical career preferences, such as personal time free from practice requirements for leisure, family and vocational pursuits, along with control of the total number of hours per week spent on fulfilling professional responsibilities. These aspects of lifestyle were found to be more influential than more traditional

motivators, such as remuneration, prestige and length of training.⁵⁻⁷

Information concerning the career choices of medical students is important in planning the health care workforce and medical education programs and providing equitable and quality health care services to the community. It is generally believed that understanding the factors influencing career choice could be used to modify methods of selection, medical school curricula and practice opportunities to better match population needs and student desires.^{8,9}

Aside from institutional support for career choice introduction, medical students' career maturity and preparedness are also substantial, considering that career maturity is playing a key role in students' ability to choose and pursue suitable career for themselves.¹⁰ Having preferred career choices and knowing what direction they want to pursue is the first step in finding suitable career. Finding help and knowing what they want to find out about their career are also important in their career exploration process. In this study, we aimed to discover medical students' career choices and their reasons for choosing those careers to find out their

preferences. This study will also try to find their need of medical career intervention for their career preferences to generate intervention that will be suitable to current medical students' preferences.

METHODS

This cross-sectional survey conducted by self-administered questionnaire. The sample was medical students in Sriwijaya University. After obtaining the data, the results will be processed and presented descriptively. The data used was primary data.

RESULTS

Career choices: first, second, and third choices

Out of 346 questionnaires distributed, 269 were completed, producing a response rate of 77.7%. The overall findings of the study showed that medical students chose different kind of careers, ranging from specialist, general practitioner (GP), hospital director, family doctor, lecturer, researcher, master degree student, national government, to enterpreneur respectively (Table 1).

Table 1: Distribution of career choice among the respondents.

Career Choice	1 st Choice		2 nd Choice		3 rd Choice	
	Frequency	Percent (%)	Frequency	Percent (%)	Frequency	Percent (%)
Undecided	21	7.8	91	33.8	186	69.1
Specialist	201	74.7	92	34.2	34	12.6
GP	30	11.3	12	4.5	4	1.5
Hospital Director	4	1.5	10	3.7	7	2.6
Family Medicine	3	1.1	3	1.1	6	2.2
Lecturer	3	1.1	29	10.8	10	3.7
Researcher	2	0.7	11	4.1	11	4.1
Master Degree	2	0.7	9	3.3	1	0.4
Government	1	0.4	5	1.9	5	1.9
Enterpreneur	2	0.7	7	2.6	5	1.9
Total	269	100	269	100	269	100

Career choices: first choices

Among the first choices, a total of 201 (75%) students were attracted to be a specialist (Table 1).

Table 2: Frequency of 5 most chosen specialty in the first choice.

Specialty	Frequency	Percent (%)
Pediatrician	38	18.9
Internist	30	14.9
Obstetrician	29	14.4
Surgery	18	9
Anesthesiologist	10	5

The most popular specialties in the first choices were (Table 2) pediatrician, internist, obstetrician, and surgery with amount of 18.9% (N=38), 14.9% (N=30), 14.4% (N=29), and 9% (N=18). The second most career chosen as the first choices was general practitioner with amount of 30 (11.1%). Meanwhile there were 21 (7.8%) undecided students.

Career choices: second choices

On their second choices (Table 1), 91 students (33.8%) were undecided, with addition of 70 (26%) undecided students from the first choice. The most chosen career

was specialist beside their first choice, with amount of 34% (N=92). The most popular specialty chosen were surgery, internist, obstetrician, and pediatrician respectively by 16.3%, 13%, 13%, and 9.7% (Table 3).

Table 3: Frequency of 5 most chosen specialty in the second choice.

Specialty	Frequency	Percent (%)
Surgery	15	16.3
Internist	12	13.0
Obstetrician	12	13.0
Pediatrician	9	9.7
Ophthalmologist	4	4.3

Career choices: third choices

Among the third choices (Table 1), there were 186 (69.1%) undecided students, with an increase of 95 (35%) from their second choice. The most chosen career was specialist with 12.6% with internist, followed by pediatrician, obstetrician, and surgery respectively.

Table 4: Frequency of 5 most chosen specialty in the Third choice.

Specialty	Frequency	Percent (%)
Internist	7	20.6
Pediatrician	5	14.7
Obstetrician	3	8.8
Surgery	3	8.8
Anesthesiologist	3	8.8

Determinants of career choices

In the questionnaire, students were asked about the reasons for their choices (Figure 1) and they could have filled multiple responses. There were total of 1117 responses. They were then classified into some main determinants, consisted of self-interest, family factor, financial factor, social factor, experience, difficulty level, opportunity, role model, flexibility, and low risk. Meanwhile, there were 33.5% of students who did not know the reasons why they chose the career.

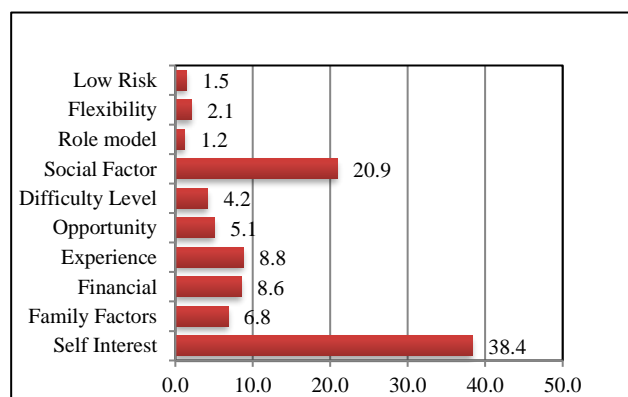


Figure 1: Determinants for career choices.

The need of career choice intervention

When the students were asked about the need for career choices intervention, almost all of them (99%) said that they needed career choices intervention. For the recommended time for the intervention, most of them (55%) choose first year as the recommended time to do career choice intervention. (Table 5). Other recommended time for intervention were during third year (18.5%) and during clerkship year (10%).

Table 5: Recommended time for career choice intervention.

Time for career choice intervention	Jumlah
First year	142
Third year	50
Clerkship year	27
During pre-clinical	16
After graduation	14
Second year	12
After admission	5
Do not know	1

DISCUSSION

It is shown that the most desirable career was being a specialist, either as their priority or their back-up plan. It is in accordance with previous studies regarding medical students' career preferences both domestically and internationally.^{1-4,11-15} The second most chosen career as the first choice was as a general practitioner. The result was similar to the previous study shown that GP is still considered as career preference.¹³ Choosing a career in a primary level as a general practitioners and family physicians were influenced by the opportunity to give a medical service in a holistic manner, with the opportunity to be able to serve patients from diverse population and interact with patients, flexibility in implementing the medical practice, as well as various facilities to get work in desolated areas to provide health care with limited facilities.¹⁶

The most influential factors in choosing career choices for medical students were personal interest (38.4%) and social factors (20.9%). Other studies are also in accordance to the result, where personal interest is shown to be the most influential determinant in choosing medical career choices.^{2,15-18} Social factors, such as eagerness to serve the community, wanting to help people and directly interacted with patients, as one of the main determinants for career preference were also present in previous studies.^{17,18}

Almost all of the students agreed on the need to do career intervention to introduce them to variety of career choices. They have different opinion about the recommended timing for the activity to be carried out. Most of them recommend first year, followed by third year and clerkship year. Each recommendation has a

reason to it. For the first-year intervention, it was in accordance to Super's career development theory, that the late adolescence and early adulthood were the time to explore career possibilities.¹⁹ Work load in first year in medical school is not as heavy as other stages of medical education, making it the perfect time to do activities. Third year and clerkship year are the time when medical students' area already in exposure of several career choices through their lecturers or assignments, making it good and bad in the same time to give them career intervention, because their earlier exposures were creating bias in their intervention. Because all the recommended time has their own advantages and disadvantages, it might be possible to do an intervention with a spiral setting, meaning the activities will be carried out throughout their medical education year.

One of the most highlight of this part was about the undecided students. There was a great increase in number of undecided students in each step of career choices. Although the definite undecided students were quite a few compare to other study, most of the students don't have second and third choices on their career choices, showing their difficulty to find alternative for their career choices which is lacking in career maturity.^{10,18} Having more exposure towards more career choices will be able to help medical students to consider their options.²⁰

CONCLUSION

Clinical specialties were still the most chosen career preference in medical students. Personal interest and social factors are the most chosen determinants in choosing career choices. Having medical career choices' introduction is agreed on, to provide students with more information and exposure to make students be able to choose from more choices and be able to make alternatives on their career plan. The intervention can be in a form of a spiral setting throughout medical education year.

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