

## Reasons for Choosing Medicine and Career Suitability among Medical Students

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### ABSTRAK

Membuat keputusan dalam pemilihan kursus adalah penting bagi seorang pelajar. Kesesuaian kerjaya juga haruslah sepadan dengan personaliti pelajar bagi menjamin kepuasan dalam bekerja di samping kejayaan dalam profesion yang diceburi pada masa akan datang. Tujuan kajian ini adalah untuk mengenal pasti sebab-sebab pelajar memilih bidang perubatan, personaliti diri mereka, dan keupayaan sendiri (kesesuaian). Kajian ini merupakan kajian rentas yang melibatkan pelajar perubatan Tahun 3 pra-klinikal di Universiti Sains Islam Malaysia. Soal selidik yang digunakan mengandungi tiga bahagian iaitu data demografik, Inventori Minat Kerjaya Sidek dan sebab-sebab mereka memilih kursus perubatan. Inventori Minat Kerjaya Sidek digunakan untuk mengukur personaliti pelajar dan kesesuaian kerjaya. Seramai 80 orang pelajar yang berumur di antara 20-21 tahun telah menyertai kajian ini dan majoritinya adalah perempuan (n=56, 70.0%). Dapatan kajian menunjukkan seramai 45.7% (n=44) responden memilih kursus perubatan disebabkan 'kesungguhan dan minat', manakala 24.7% (n=20) 'pengaruh ibu bapa' dan 19.8% (n=16) 'untuk membantu masyarakat'. Dalam bidang perubatan, dua trait personaliti yang penting adalah personaliti penyiasat dan personaliti sosial. Seramai 47.5% (n=38) responden mempunyai skor tinggi bagi personaliti penyiasat tetapi hanya 13.8% (n=11) responden mempunyai skor tinggi personaliti sosial. Bagi gabungan kedua-dua personaliti hanya 12.5% (n=10) pelajar mempunyai skor yang tinggi. Kesimpulannya, majoriti pelajar memilih bidang perubatan atas sebab altruistik. Walau bagaimanapun, berdasarkan penilaian personaliti yang telah dilakukan,

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*hanya sebilangan kecil di kalangan mereka mempunyai kebolehan sendiri yang sesuai untuk kursus ini iaitu kemahiran penyiasatan dan interaksi sosial. Oleh yang demikian, pelajar dan pensyarah perlu mempunyai kesedaran terhadap perkara ini serta meningkatkan kemahiran yang diperlukan dalam bidang ini.*

*Kata kunci: aptitud, pelajar, perubatan, sebab, trait personaliti*

## ABSTRACT

Choosing a course to pursue is an important decision for students to make. A suitable career should correspond to the students' personality for future work satisfaction and success. The objectives of this study were to determine the students' reasons for choosing medicine, their personality traits and aptitude (suitability). This was a cross-sectional study involving all third-year medical students at Universiti Sains Islam Malaysia. A self-administered questionnaire was used, which included questions on demographic data, Sidek Career Interest Inventory and reasons for choosing medicine. The inventory was used to measure the students' personality traits and career suitability. A total of 80 students participated in the study. Majority of them were females (n=56, 70.0%). The findings showed that 45.7% (n=44) of the respondents chose medicine because of 'passion and interest', while 24.7% (n=20) and 19.8% (n=16) because of 'parental influence' and 'to help the society', respectively. For medicine, two personality traits are essential which are investigative and social personality traits. Approximately, 47.5% (n=38) of the respondents had high scores in investigative personality trait. However, only 13.8% (n=11) of them had high scores in social personality trait. Only 12.5% (n=10) of the students had high scores when combining both of the traits. Majority of the students chose medicine for altruistic reasons. However, only a few of them had suitable aptitude for this course namely investigative and social skill. Therefore, the students and the teachers need to be aware of these issues and cultivate the required skills in the students for better career outcome.

Keywords: aptitude, students, medicine, personality traits, reasons

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## INTRODUCTION

Choosing a suitable career is one of the most challenging decisions in our life. A person will progress with the chosen career and achieve success through the decision. In addition, choosing a career which corresponds to personality traits

would lead to utmost work satisfaction. The career satisfaction rate would be highest when it is in accordance with one's personality strength, principles and thoughts (Lounsbury et al. 2016).

Holland's theory (Holland 1997) is one of the best-known theory used for choosing a career. It focuses on

the study of personality types and environments. Career suitability assessment is valuable in helping individuals to recognize their unique personal qualities which contribute to the potential success and satisfaction in different career options and work environments. Certain career possesses specific job requirements and commitments, hence requires certain personality traits that best relates to the nature of that career.

Personality traits was found to play an essential role in determining the success of medical students in their studies and future specialties training (Mehmood et al. 2013). Medical students whom exhibit conscientious trait would generally perform better in the pre-clinical years because medical theories are being emphasized at this stage (Mehmood et al. 2013). In contrast to the clinical years, where doctor-patient interactions are important, personality traits which comprise social values are more important for success (Farin & Meder 2010). According to Holland's theory, the most prevalent types of personality among the medical doctors are investigative and social traits (Lounsbury et al. 2016). Medical professionals are expected to be caring, approachable and inquisitive. They should be able to attend and empathize patients' pain, anxiety and sadness.

Students' motivations for pursuing medicine as a career can play an integral role in influencing how students receive and apply the knowledge that they gain. The reason for studying medicine is a vital issue to explore as it may affect the student's

motivation, resilience in facing the challenges during the course and future commitment in the profession. Therefore, the objectives of this study were to ascertain the medical students' personality, aptitude and their reasons for choosing medicine as a career.

## MATERIALS AND METHODS

This was a cross-sectional study conducted at the Faculty of Medicine and Health Sciences, Universiti Sains Islam Malaysia. Universal sampling was used whereby all pre-clinical third year medical students were selected. The inclusion criteria were i) third year medical students and ii) all ethnicity. Those who were absent during the data collection day were excluded from the study. The third year medical students were chosen because they were available to participate during the study period and they had two years experience in the course which would help them to comprehend and answer the questionnaire more accurately. The duration of the study was one year (from August 2015 to July 2016).

'Sidek Career Interest Inventory' (Sidek 2013) was used to assess the medical students' suitability for the course. Permission to use this inventory was obtained from the author prior to the study. This instrument had been validated locally to suit the local social and cultural context. It assessed the students' personality trait based on Holland's theory and their interests. The content validity of the items in the questionnaire ranged between 0.83–0.93 and the reliability was high between 0.88–0.97 (Cronbach's

alpha). Based on Holland's theory (Holland 1997), personality was divided into six traits namely i) realistic (prefers physical activities that require skill, strength, and coordination.), ii) investigative (prefers working with theory and information, thinking, organizing, and understanding), iii) artistic (prefers creative, original, and unsystematic activities that allow creative expression), iv) social (prefers activities that involve helping, healing, or developing others), v) enterprising (prefers competitive environments, leadership, influence, selling, and status) and vi) conventional (prefers precise, rule-regulated, orderly, and unambiguous activities). These personality traits reflect the environments which are conducive for individuals to express themselves. It is believed that one becomes more motivated, satisfied, productive and stable if his or her personality trait is compatible with the nature of environment around them. The score for each personality trait was categorized as low (0-3.99), moderate (4-6.99) and high (7-10).

For students to pursue the medical course, two main personality traits are considered to be essential namely investigative and social trait personalities. Some of the characteristics of investigative trait include analytical, rational, intellectual and curious, while the characteristics of social trait personality include empathy, friendly, understanding and accommodating. The students were also asked regarding the main reasons for choosing medicine as their carrier. An open-ended question was used

and they were allowed to give more than one reason. The reasons were then categorized based on common themes.

Prior to the distribution of the questionnaire, the students were briefed by the researcher regarding the study. The students were given a set of self-administered questionnaire which included questions on demographic data, Sidek Career Interest Inventory and reasons for choosing medicine. The students were given approximately 45 minutes to complete the questionnaire.

The demographic data was analysed using descriptive analysis namely proportion and frequency. The results from the inventory were processed using the 'Sidek Career Interest Inventory Manual' developed by the author and 'reasons for choosing medicine as career' was analysed using thematic analysis.

Permission to conduct the study was obtained from the Universiti Sains Islam Malaysia Ethical Committee. Consent from the participants was also obtained prior to the study.

## RESULTS

The total number of third year medical students was 81. However, only 80 students were included in the study because one student was absent during data collection day. All the students agreed to participate in the study and completed the questionnaire adequately, thus the response rate was 100%. There were more females (n=56, 70%) compared to males. Their age ranged between 20 to 21 years. More than half of them were from families

with moderate to high socio-economic status. Majority of their parents had tertiary education. The students' socio-demographic characteristics are shown in Table 1.

The reasons stated by the students

for choosing medicine as their carrier were categorized into seven themes as shown in Table 2. The three main reasons were i) own passion or interest in the medicine, ii) parents or family encouragement and decision and iii)

Table 1: Demographic characteristics of the respondents

Variable (N=80)	Frequency (n)	Percentage (%)
Gender		
Male	24	30.0
Female	56	70.0
Age (year)		
20	64	80.0
21	16	20.0
Place of Origin		
Urban	49	61.0
Rural	31	39.0
No. of Sibling		
1	1	1.0
2-5	46	58.0
Above 5	33	41.0
Family Income		
Below 2000	8	10.0
2000-5000	26	33.0
5001 above	46	57.0
Father's Occupational Classes		
Blue collar	6	8.0
White collar	48	60.0
Pensioner	18	22.0
Others	5	6.0
Not stated	3	4.0
Mother's Occupational Classes		
Blue collar	5	6.0
White collar	48	60.0
Pensioner	7	9.0
Others	18	23.0
Not stated	2	2.0
Level of Father's Education		
Primary School	2	3.0
Secondary school	22	27.0
Higher Education	56	70.0
Level of Mother's Education		
Primary School	0	0.0
Secondary school	22	27.0
Higher Education	58	73.0

Table 2: Reasons for choosing medicine

*Reasons	n	%
Own passion or interest in the medical field <i>(Example of excerpt: It's my own interest to become a doctor)</i>	44	45.7
Parents or family encouragement and decision <i>(Example of excerpt: It was my mother who wanted me to study medicine)</i>	20	24.7
Achieved excellent results in the exam <i>(Example of excerpt: I was chosen to study medicine because I obtained excellent result in my exam).</i>	2	2.5
To help society <i>(Example of excerpt: I love to help people).</i>	16	19.8
Offered by the University <i>(Example of excerpt: Well.....I was offered by the university to do medicine)</i>	1	1.2
Job opportunity in future <i>(Example of excerpt: If I study medicine I can become a medical specialist in future).</i>	1	1.2
Friends' Influence <i>(Example of excerpt: I decided to do medicine because my best friend had chosen medicine).</i>	3	3.7

\*The respondents were allowed to give more than one reason.

Table 3: Respondents' personality score

Type of Personality	Low (0-3.99)		Moderate (4.00-6.99)		High (7.00-10.00)	
	n	%	n	%	n	%
Realistic	59	73.7	17	21.3	4	5.0
Investigative	5	6.3	37	46.2	38	47.5
Artistic	54	67.5	23	28.7	3	3.8
Social	44	55.0	25	31.2	11	13.8
Enterprising	47	58.7	22	27.5	11	13.8
Conventional	45	56.2	24	30.0	11	13.8

Table 4: Respondents with high investigative and social personality traits score

Type of Personality	n	%
Investigative ( score: 7.00- 10.00)	38	47.5
Social (score: 7.00- 10.00)	11	13.8
Combination of both (score: 7-10)	10	12.5

to help the society.

Table 3 illustrates the score of the different types of personality among the students. Approximately, half of the students (47.5%) scored high for investigative trait. However, for social

trait, only 13.8% of the students scored high while 31.3% scored moderate. The score of other personality traits are shown in Table 3.

Table 4 described the proportion of students who scored high in

investigative and social personality traits. Only 12.5% (10) students had high scores for both investigative and social traits when combined together.

## DISCUSSION

The number of students choosing medicine as a career has increased over the recent years despite the challenges (Palatino 2010). The reasons why these students chose medicine need to be explored. It is important that students pursuing a medical course should do so for the right reasons.

In this study, the main reasons given by the students for choosing medicine were 'own interest and passion', 'family's influence' and 'to help others'. Choosing the medical course due to own interest and 'to help others' were good altruistic reasons, however pursuing the course due to family influence may not be a strong motivational factor in future. Perhaps some parents believed that the medical profession is a noble job, thus they insist their child to pursue medicine regardless of the child's interest. Some parents who are doctors as profession wish their children to follow their footsteps. The above could be some of the reasons why the students stated 'family influence' as their reason for choosing medicine.

In a study of medical students' perceptions of medicine, a desire for prestige, money and success were among the main motivational factors for pursuing medicine as their career (Powell et al. 1987). In contrast, there were other studies that reported about the altruistic reasons for studying

medicine such as 'concern for the well-being of others' (Ferreira et al. 2000; Crossley & Mubarik 2002; Millan et al. 2005). This attitude is an essential value for medical students to become empathic doctors with good soft skills in future. However, recent studies reported that students have a range of other motivations (Wagoner & Bridwell 1989; Mitchell & Hayes 1983; Ewan & Bennett 1981) such as personal satisfaction (Fajardo-Dolci et al. 1995) and an interest in human biology (Junas et al. 1990) rather than predominance of altruistic motivations.

There are two important personality traits namely investigative and social trait personalities which are believed to be essential for students who wish to pursue in the medical course (Holland 1997). Analytical, rational, intellectual and curious are among the characteristics included in the investigative traits, while the characteristics of social trait personality include empathy, friendly, understanding and accommodating. The personality scores for most of the medical students were moderate to high in the investigative trait, yet they were lacking in the social values. This is worrying since medical students are expected to be good in both investigative and social skills in order to become good medical doctors. Furthermore, patients would highly rate on the empathy and interpersonal skills for the qualities of a good doctor (Derksen et al. 2013). However, with persistent motivation and conscientious hardwork, the required skills can be acquired in the training of medical schools. Thus,

the medical students should have strong good reasons for pursuing the medical course to persevere through the challenges if necessary. It would also be beneficial if the students and the medical educators identified the students' strengths and weaknesses in order to implement teaching and learning methods which emphasized on the lacking areas for further improvement in future.

There were few limitations in this study. Including students from both pre-clinical and clinical years would represent the student population better in the university rather than only third year medical students. Majority of the participants in this study were females as there were more female students in that batch which led to gender disproportionate. This study only involved one institution, thus the results cannot be generalized for all medical students.

## CONCLUSION

This study showed that the medical students had good scores in the investigative personality traits, however they scored low in the social personality traits. Both personality traits are important for the students to become good medical doctors. Thus, the students need to improve their social interactive skills in order for them to become good doctors in the future. The main reasons given by the students to pursue the medical course were 'own interest and passion', 'family's influence' and 'to help others'. It is recommended that the personality traits assessment to be done at the

initial phase of the medical course as it will assist the students to understand themselves better and give them the opportunity to improve in their lacking areas.

## ACKNOWLEDGEMENT

This study was funded by USIM Administrator Grant (PPP-FPSK-14415-00). The authors also express their thanks to Faculty of Medicine, USIM for the cooperation given in this study.

## REFERENCES

- Crossley, M.L., Mubarik, A. 2002. A comparative investigation of dental and medical students' motivation towards career choice. *Br Dent J* 193(8): 471-3.
- Derksen, F., Bensing, J., Lagro-Janssen, A. 2013. Effectiveness of empathy in general practice: a systematic review. *Br J Gen Pract* 63(606): e76-84.
- Ewan, C.E., Bennett, M.J. 1981 Medicine in prospect: the first-year student's view. *Med Educ* 15(5): 287-93.
- Fajardo-Dolci, G.E., Laguna-Garcia, J., Ponce de Leon-Castaneda, M.E., Gutierrez, H. 1995. The choice of career and the prospects for the professional development of students of medicine. *Salud Publica Mex* 37(1): 31-6.
- Farin, E., Meder, M. 2010. Personality and the physician-patient relationship as predictors of quality of life of cardiac patients after rehabilitation. *Health Qual Life Outcomes* 8:100.
- Ferreira, R.A., Peret Filho, L.A., Goulart, E.M., Valadao, M.M. 2000. [Undergraduate students of "Universidade Federal de Minas Gerais": profile and trends]. *Rev Assoc Med Bras (1992)* 46(3): 224-31.
- Holland, J.L. 1997. *Making vocational choices: A theory of vocational personalities and work environments*. 3rd edition. Odessa, FL: Psychological Assessment Resources.
- Junas, J., Komon, J., Giacova, D., Vencelikova, M. 1990. Motivation for medical studies. *Cesk Zdrav* 38(2): 57-65.
- Lounsbury, J.W., Loveland, J.M., Sundstrom, E.D., Gibson, L.W., Drost, A.W., Hamrick, F.L. 2016.



- An Investigation of Personality Traits in Relation to Career Satisfaction . *J Career Assess* **11**(3): 287-307.
- Mehmood, S.I., Khan, M.A., Walsh, K.M., Borleffs, J.C. 2013. Personality type and specialist choices in medical students. *Med Teach* **35**(1): 63-8.
- Millan, L.R., Azevedo, R.S, Rossi, E., De Marco, O.L., Millan, M.P., de Arruda, P.C. 2005. What is behind a student's choice for becoming a doctor? *Clinics (Sao Paulo)* **60**(2): 143-50.
- Mitchell, K.R., Hayes, M. 1983 Student characteristics on entry to an innovative medical programme. *Med Educ* **17**(2): 79-82.
- Palatino, M. 2010. *Too Many Doctors in Malaysia*. Asia-Pacific: The Diplomat Magazine. Dec 20, 2010.
- Powell, A., Boakes, J., Slater, P. 1987. What motivates medical students: how they see themselves and their profession. *Med Educ* **21**(3): 176-82.
- Sidek, M.N. 2013. *Sidek Career Interest Inventory Manual*. Selangor: Universiti Putra Malaysia Publisher. <https://www.scribd.com/.../Psikometrik-Inventori-Minat-Kerjaya-Si>. Accessed on 15th June 2017
- Wagoner, N.E., Bridwell, S.D. 1989. High school students' motivations for a career as a physician. *Acad Med* **64**(6): 325-7.

Received: 20 Jun 2017

Accepted: 23 Oct 2017