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Factors Influencing Pediatric Specialty Choice among Pediatric Residents of Ahvaz Jundishapur University of Medical Sciences

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Abstract

Introduction

Factors influencing the choice of the subject could strengthen the knowledge and motivation to enter the field to promote the health of society. This study explores factors influencing pediatric specialty choice of pediatric residents in Ahvaz Jundishapur University of Medical Sciences.

Materials and Methods

In this cross-sectional study, all 38 pediatric residents were undertaken using a questionnaire designed to assess their reasons with regard to pediatric course choice. The nameless questionnaire with sixteen questions was completed separately. The reliability and validity of the questionnaires were verified by experts and Cronbach's alpha (0.81). Data were analyzed by using SPSS-13 software.

Results

From 38 pediatric residents, including 26 female (71%) and 12 male (29%), twenty six (70.3%) were married. Mean age was 33.1 ± 4.2 years. participating in the study mentioned factors such as "helping patients", "raising knowledge and skills" and "the ability to do a better service" with the average of 4.32, 4.26 and 4.18 respectively as high priority; and factors such as "lack of heavy duty," "comfortable and effortless" and "lack of urgency", respectively, with an average of 2.18, 2.24 and 2.37 had a low priority in choosing pediatric specialty course. According to the t-test, statistically significant differences were observed between gender, marital status and factors influence specialty choice of pediatric course (P<0.05).

Conclusion

Pediatric residents paying more attention to factor such as helping patients and increase their knowledge and skills in selection of pediatric specialty. Understanding the factors influencing the process of specialty choice by general physicians will help managers selecting appropriate strategies to promote education and health care in the community.

Key Words: Affecting factors, Ahvaz-Iran, Choice of specialty, Pediatric residents.

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Introduction

The choice of a specialty field is a complex process with several contributing factors. Factors that influences the choice of specialty fields creates a picture of that field and helps the medical student to choose that specific field. Evaluating the factors affecting the choice of specialty fields may help to identify and improve incentives for choosing that profession (1, 2). Physicians are a major part of the health care work force in all countries, which will be responsible for securing, protecting and promoting public health in the future. Therefore in order to be able to fulfill their role as a responsible member of society, their motivation for choosing a specific specialty should be appropriate to goals and standards their (3). Identification of the students' motives for entering pediatric residency programs can strengthen these motives and eventually lead to better educated and more successful pediatricians. Studies have shown a large spectrum of reasons for choosing medical specialties (4, 5). Many studies have been performed in different societies to show the rate of motivation for a higher education in a medical specialty between medical students. These studies have shown that personal preference, helping people, providing better health care, social status, and higher income were the most influential factors (6-8).

Identification of contributing factors for entering specialty residency programs is an important element that can lead to successful plans for training qualified and competent doctors, increasing medical staff quality and composing the workforce needed by society. Understanding of reasons and factors affecting the choice of specialty medical education can be helpful for university medical education planners and public health managers. So far comprehensive studies of the causes and contributing factors in choosing the pediatric course have not been conducted; therefore this study was done to determine effective factors in choosing the pediatric field in employed residents at Ahvaz Jundishapur University of Medical Sciences in years 2014 to 2015.

Material and Methods

This cross sectional descriptive study was conducted during the November 2014 to February 2015 academic year in Ahyaz University Jundishapur of Medical Sciences. Census sampling method was used and all pediatric residents educating University's Hospitals the (40)at participants) were included; therefore, the study population was equal to the sample size. Data were gathered through two part questionnaires designed by the researcher. In the demographic section gender, age, marital status, and educational field satisfaction were documented and the second section included 16 questions about factors that influenced the students' choice of pediatric specialty.

Questions were composed based on Likert scale with five answers (very important, important, average, low importance, and not important). Pediatric residents were asked to answer the questions on Likert scale from 1 (not important) to 5 (very important). To determine the validity of the questionnaire, the questions reviewed by 5 university faculty members and two clinical psychologists. The reliability was calculated by Cronbach's alpha coefficient which was 0.810 for this questionnaire.

Data were analyzed by SPSS software, version 18. Statistical descriptive methods such as frequency and average were used to express data and independent t- test was used for analyses. P< 0.05 was considered significant.

Results

A total of 40 questionnaires, 38 were completed and returned (95%). Of 38 participants, 27(71%) were female and 11(29%) were male; 11 (29%) were single and 27 (71%) were married; 8 (80%) of the male participants and 18 (66.7%) of the female participants were married; 22 (61%) were native from Khouzestan province and 14 (39%) were non-native; the average age was 35.6 ± 5.4 and $32.2\pm$ 3.3 years in male and female participants, respectively, and the overall mean age of participants was 33.1 ± 4.2 years. Four (10.5%) of the residents declared that they were not satisfied with their specialty field, 15 (39.5%) were somewhat satisfied and 19 (50%) were completely satisfied. Pediatric assistants' average comments about effective factors in specialty selection can be seen in (Table. 1). As seen, factors such as "helping patients", "enhancing knowledge and awareness" and "ability to do a better job" with averages of 4.32, 4.26, 4.18 respectively had the highest priority; and factors such as "lack heavy shifts", "convenient of and effortless-ness" "not having and emergencies" with averages of 2.18, 2.24, and 2.37 respectively, held the lowest priorities in choosing the field of Pediatrics (Table.1).

Table 1: Mean of Pediatric residents' opinions based on gender and age	Table 1: Mean of	of Pediatric	residents'	opinions	based	on gender	and age
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Items	Total	Gender		Married=38	
		Male	Female	Single	Couple
	(n=38)	(n=11)	(n=27)	(n=11)	(n=27)
Helping patients	4.32 ± 0.74	4.18 ± 0.98	4.37±0.63	4.36±0.51	4.35 ± 0.80
Increase of knowledge and	4.26 ± 0.68	4.09 ± 0.83	4.33±0.62	4.09 ± 0.30	4.35 ± 0.80
information					
Ability to perform better	4.18 ± 0.73	4.09 ± 0.83	4.22 ± 0.70	4.18 ± 0.40	4.19 ± 0.85
Aid in increase of health level	4.08 ± 0.82	4.09 ± 0.83	4.07 ± 0.83	3.73 ± 0.65	4.23±0.86
Obtaining specialty degree	3.89 ± 0.98	4.36±0.67	3.70±1.03*	3.91 ± 0.83	3.88±1.07
Interest in working in the pediatric	3.87 ± 1.09	4.09 ± 1.04	3.78 ± 1.12	4.09 ± 0.94	3.81±1.17
field					
The possibility of continuing	$3.74{\pm}1.06$	$3.64{\pm}1.04$	3.78 ± 0.93	4.09 ± 0.94	3.62±1.09
education and fellowship					
Personal interests	$3.74{\pm}1.18$	4.00 ± 1.00	3.63 ± 1.24	4.00 ± 0.89	3.65±1.29
The span of the specialty field	3.68 ± 0.93	4.18 ± 0.98	$3.48 \pm 0.85*$	3.82 ± 0.60	3.65±1.05
Short time span of pediatric	3.55 ± 1.08	3.55±0.93	3.56±1.15	3.55 ± 0.82	3.54±1.21
specialty					
The title and the social prestige	3.00 ± 0.84	3.18 ± 0.87	2.93±0.83	3.18 ± 0.60	2.96±0.92
The lack of stress	2.61±1.15	$2.64{\pm}1.20$	2.59±1.15	3.27 ± 1.10	2.31±1.08*
High income	2.42 ± 0.89	2.36±1.02	2.44 ± 0.85	$2.45{\pm}1.04$	2.46±0.81
The lack of emergency	2.34 ± 0.99	1.82 ± 0.87	2.56±0.97*	2.91±0.83	2.12±0.91*
Comfortable and effortlessness	$2.24{\pm}1.07$	2.00 ± 0.89	2.33±1.14	2.82±1.17	1.96±0.96*
Not having heavy shifts	2.18±1.06	2.18±0.87	2.19±1.14	2.36±1.21	2.08±1.02

Based on t-test, significant differences were observed between the mean of factors in selecting a specialized field and sex and marital status. The lack of emergencies in female assistants and earning specialized degree in male assistants had significantly higher importance and in unmarried participants not having the stress, the lack of emergency and comfortable and

effortless-ness had significantly higher importance (P >0.05).

Discussion

This study was conducted to determine the effective factors on the choice of fields by employed pediatric residents in Ahvaz Jundishapour University of Medical Sciences. We found that more than twothirds of employed pediatric residents were female, 27 females versus 11 males, meaning that women are more willing to choose the field of pediatrics which was consistent with the results of previous studies (9-11).

Residents who participated in this study expressed that helping patients and enhancing knowledge and awareness were most important motivations the for entering the period of residency and specialized fields. Aiding people has always been an attractive factor in the health employment sector that attracts many people. The findings of the different studies show that aiding people continues to be an important factor in choosing the medical field (12-14). In a study in Turkey, 61% of college students named helping people and following that maintaining public health and promoting community health were the most important factors in choosing medical degrees (15). Therefore, it is expected that the health system officials attempt achieve maximum efficiency in compliance with ethical and professional standards in maintaining this factor. Participating residents choose obtaining a specialty degree as an important motive. Due to the increase in the number of general practitioners in recent years from one direction and the tendency of people to refer directly to specialist doctors on the other hand, the position and the status of general practitioners in the community is severely weakened. Therefore, obtaining higher medical degrees and specialties is vital for general practitioners. In a study to investigate the effective factors in the choice of specialized fields in Turkey, capabilities and increased earning specialized degree to provide services to patients were the named factors which were in co-ordinance with our study (15-16).

Personal interest and attachment to the pediatric field were also of decisive factors

in the choice of a specialized degree in the present study, which was consistent with the results of other studies (17-18). The findings of a study in the United Kingdom showed that personal interest was the most important motivation in selecting specialized fields (19).

In 2012, Khorvash et al. also showed that personal interest was a factor in selecting specialized fields in 45.4% of residents (5). Interest in the selected specialty can cause progress and scientific promotion or on the contrary lead to despair and hopelessness. motivation is satisfactory This and favorable, because a positive attitude to the profession and the work environment is one of the aspects of job satisfaction. In the present study the factors such as the high income and social status, as well as comfort and effortlessness of the specialized field were less important factors in the choice of field selection. High income and social status were the fourth factor in the choice of specialization by assistants in our study and were not important factors in the choice of pediatrics. These findings were compatible with findings from studies by Parsa. Chang, Subba (1, 17, 20). However other studies have shown that income and social factors have higher priorities in specialty selection (21, 22). These results show that economic and welfare factors can have a high impact on students' choices for specialty fields. The convenience factor and effortless-ness were the least important factor in the selection of assistants specializing in pediatrics. The results of a study in Turkey also indicated that this factor was one of the less important factors in selecting a specialized field (23).

Comparison of male and female participants' opinions showed that lack of emergencies was more important for females. This finding was similar to those from studies in Karachi Pakistan, Manchester and Zurich University (24-26). Lifestyle and spending more time with family and parents were factors that contributed in females to choose lighter and easier specialty fields. However factors such as earning specialized degree and expanding medical fields had a higher importance for male participants. This shows that because of more freedom in Iranian men, earning a higher degree and expanding medical fields were motives for choosing pediatrics. Another important point is that although in Iranian men are responsible for providing costs of living, and therefore it is expected that men have higher incomes compared to women, a significant relationship between gender and specialty choice was not seen. Probably, the importance of economic issues has increased for women due to life style change and the increased participation of women in providing cost of living. Other findings of the study showed that factors such as comfort and effortless-ness and lack of emergency and shifts had a higher importance in the selection of this field in single assistants.

A limitation of our study was that our study was conducted in a restricted area and on a small population therefore, findings were not extensible and should be interpreted with caution. It is suggested that similar studies be performed in other universities.

Conclusion

The results of this study indicated that factors such as helping patients and increasing professional capabilities had high importance and factors such as high comfort and a high income had little significance in the selection of pediatrics specialty. Residents' care and attention to high impact factors such as the ability to help patients and to increase their knowledge and professional abilities in comparison with less impact factors such as comfort, high income and effortlessness suggest that community needs and

personal interests had more impact on specialty field selection. If this tendency continues in our country, we can expect to see the training of committed and efficient physicians.

Conflict of Interest: None.

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References

- 1. Shakurnia A, Ahmadi F, Mozaffary F. The factors influencing the specialty choices of medical residents in Ahvaz Jundishapur University of Medical Sciences: a cross sectional study in 2013. Journal of Medical Council of Iran 2014; 32 (2) :113-120.
- 2. Abbaszadeh A, Borhani F, Mohsenpour M. Factors Affecting Discipline (Major) Choice among Newly Admitted Students of Nursing in Kerman University of Medical Sciences. Iranian Journal of Medical Education 2011; 11(6): 600-608.
- Khorvash F, Vesal S, Mousavi S, Ghasemi G, Mehrbod N. Relationship of specialty select and education place with internship students' anxiety in 2010. SDME 2013; 9 (2):162-9.
- 4. Aslam M, Ali A, Taj T, Badar N, Mirza W, Ammar A, Muzaffar S, Kauten JR. Specialty choices of medical students and house officers in Karachi, Pakistan. East Mediterr Health J 2011; 17(1):74-9.
- 5. Mwachaka PM, Mbugua ET. Factors influencing choice of paediatrics as a career among medical students at the University of Nairobi, Kenya. SAJCH 2010; 4(3):70-2.
- 6. Wang KI, Chang PY, Hung CY, Huang YH. Analysis of Senior Medical Students' Preferences in Specialty Choice A Survey in a Medical School in Northern Taiwan. Chang Gung Med J 2007; 30(4):339-53.
- Buddeberg-Fischer B, Klaghofer R, Abel T, Buddeberg C. Swiss residents' speciality choices – impact of gender, personality

traits, career motivation and life goals. BMC Health Services Research 2006; 6(98):1-9.

- 8. Van der Horst K, Siegrist M, Orlow P, Giger M. Residents' reasons for specialty choice: influence of gender, time, patient and career. Medical Education 2010; 44(6): 595–602.
- 9. Mwachaka PM, Mbugua ET. Factors influencing choice of paediatrics as a career among medical students at the University of Nairobi,Kenya. SAJCH 2010; 4(3):70-2.
- 10. Turner G, Lambert TW, Goldacre MJ, Turner S. Career choices for paediatrics: national surveys of graduates of 1974-2002 from UK medical schools. Child Care Health Dev 2007; 33(3):340-46.
- 11.Gjerberg E. Gender differences in doctors' preference – and gender differences in final specialization. Soc Sci Med 2002; 54(4):591-605.
- 12. McManus IC, Livingston G, Katona C. The attractions of medicine: the generic motivations of medical school applicants in relation to demography, personality and achievement. BMC Med Educ 2006; 6(11): 1-15.
- 13.Baboolal NS, Hutchinson GA. Factors affecting future choice of specialty among first-year medical students of the University of the West Indies, Trinidad. Medical Education 2007; 41(1): 50–6.
- 14. Wright KA, Orcutt VL. Physician Assistant Specialty Choice: A Factor Analysis, The Journal of Physician Assistant Education 2011; 22(2):20-4.
- 15. Karaoğlu L, Çelebi E, Pehlivan E. Nursing, Midwifery and Health Officer Programs Undergraduate Students' Attitudes towards Their Future Career: Motivating/Demotivating Professional Characteristics and Career Preferences. Journal of Inonu University Medical Faculty 2007; 14(4):219-25.
- Hadadgar A, Yousefy A, Sabouri M, Richard G. Psychometric Properties of a Persian Version of the Specialty Indecision Scale: A Preliminary Study. Iranian Journal of Medical Education 2008; 8(2):229-37.
- 17.Subba SH, Binu VS, Kotian MS, Joseph N, Mahamood AB, Dixit N, et al. Future specialization interests among medical students in southern India. The national

medical Journal of India 2012; 25(4):226-29.

- 18.Azu OO, Naidu E, Naidu J. Choice of specialty amongst first-year medical students in the Nelson R. Mandela School of Medicine, University of KwaZulu-Natal. Afr J Prm Health Care Fam Med 2013; 5(1): 1-7.
- 19.Ko HH, Lee TK, Leung Y, Fleming B, Vikis E, Yoshida EM. Factors influencing career choices made by medical students, residents, and practising physicians. BC Medical Journal 2007; 49(9): 482-89.
- 20. Parsa S, Aghazadeh A, Nejatisafa A, Amini H, Mohammadi M, Mostafazadeh B, et al. Freshmen versus Interns' Specialty Interests, Archives of Iranian Medicine 2010;13(6): 509-15.
- 21. Akhund S, Ali Shaikh Z, Bux Kolachi H. Career Related Choices of Medical Students from an International Medical College of Karachi, Pakistan. JLUMHS 2012; 11(3) : 180-84.
- 22. Newton DA, Grayson MS, Thompson LF. The variable influence of lifestyle and income on medical students' career specialty choices: data from two U.S. medical schools, 1998_2004. Acad Med 2005; 80(9): 809-14.
- 23.Dikici MF, Yaris F, Topsever P, Filiz TM, Gurel FS, Cubukcu M. Factors Affecting Choice of Specialty Among First-year Medical Students of Four Universities in Different Regions of Turkey. Croat Med J 2008; 49(3):415-20.
- 24. Rehman A, Rehman T, Ateeb Shaikh M, Yasmin H, Asif A, Kafil H. Pakistani medical students' specialty preference and the influencing factors. J Pak Med Assoc 2011; 61(7): 713-18.
- 25.Oche MO, Raji MO, Kaoje AU, Gana G, Ango JT, Okafoagu N, et al. Medical students' specialty preferences: A survey in a medical school in Northern Nigeria. Sci. Res. Essays 2013;8(25):1603-1609.
- 26. Al-Nuaimi U, McGrouther G, Bayat A. Modernizing medical careers and factors influencing career choices of medical students. British Journal of Hospital Medicine 2008; 69 (3):163-66.