

Original article

Employment Status and pursuit of Higher Education among Graduated Students of Operation Room From 1997 to 2006 at Kermanshah University of Medical Sciences.

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Abstract

Introduction: One major undertaking of universities is educating professionals required by the community. Since academic institutes are willing to know about the fate of their graduated students and how they are using their expertise, the present study was performed to have a look at the employment status and the pursuit of higher education among the graduate students of operation room of Kermanshah University of Medical Sciences, in 1997-2006.

Methods: This study was a descriptive, cross- section. Data were gathered using a researcher- made questionnaire containing some demographic information, employment status, and pursuit of higher education among graduated of operation room. Data analysis was performed using SPSS.V.15, yielding findings in the form of frequency tables to study the relationship between some demographic characteristics and the pursuit of higher education and employment, was used.

Results: Findings indicated that the total number of graduated students in this field was 366 from 1997 to 2006. The researcher were able to access 275 (75.1%) of them, comprising of 62.9% females , and 81.5% employed cases. 48.4% of them had pursued higher education in B.Sc ,M.Sc , and PH.D levels , about 86.5% in nursing .

Conclusion: Regarding unemployment levels of graduated students in this field of study, it is recommended that university admission be based on the requirements of the community.

Key words: Graduated students, Operation room, Employment, Pursuit of higher education, Kermanshah.

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Introduction

In the current era knowledge is ever-expanding in scale and scope. Skilled human resource is no playing an important role in development. Employment is a critical

challenge for policy-makers and economists and unemployment a difficult obstacle to overcome on the way development. The unemployment hinders the process of economic, social, and

political development (1). Discrepancies in the numbers of skilled workers needed by society and the numbers of students accepted and educated in universities can lead to loss of resources. Accepting and training students in the fields which are no longer needed by the society may also increase the bulk of unemployment among educated persons (2). When the number of persons educated in a field increases the income of the employed persons will decrease since competition for acquiring a job is accompanied with offering lower wages and accepting wages even lower than what has been offered. This can inversely affect the public interest in being involved in working or qualifying in that field (3). Job position in health system is not exception to this rule (4). It is therefore important to gather precise information on employment, unemployment, and performance of the health care providers so as to guide future planning on allocating resources to mostly needed skills. Using such information executives who are responsible for making policies will be able to adjust capacity of universities for accepting new students in different fields based on real needs of a society and by prioritizing resources in accordance with mostly needed skills. Educational systems can also take advantage of these data and information to modify educational contents and methods accordingly (5). It is important for high educational systems (academic educational systems) to know what is happening to their graduates after they are graduated and how the society is using their skills and knowledge (6). Employing educated workers in fields different from what in which they have been majored may lead to waste of resources spent on their education (3). Recent surveys have demonstrated 20-50% of student graduated from medical universities to remain unemployed after their graduation (2, 5-8). Information is lacking regarding the employment sit-

uation of the student graduated in surgical technician from Kermanshah University of medical sciences. Colleges and universities in Iran previously awarded the academic degree of bachelors in surgical techniques in recognition of the recipient having satisfactorily completed a prescribed 2-year academic course of study. Surgical technician were allowed to assist surgeon in operational settings. Currently, however, surgical technician should qualify an academic degree of license. A licentiate in surgical techniques signifies someone who held a certificate of competence to practice surgical techniques. Students can either be accepted in colleges and universities for a 4-year study program (continuum) or, if qualified a bachelor degree, take a supplementary a 2-year course of study. In other words, qualification for surgical technician position now mandates a higher educational level. This higher level of education imposes much more costs; therefore, it is prudent to study the employment situation of the graduates of the surgical techniques. As such, we will be able to estimate how many new surgical technicians should be accepted to and educated in universities.

We aimed at providing a foundation based on which to decide how many new students should be accepted or how many surgical technicians should be trained. The current study, thus, conducted with purpose of determining the employment situation of the students graduated in surgical techniques and how they continue their education.

Materials and Methods

For this cross-sectional study, we invited all students (both part time and full time students) who during 1997 to 2006 graduated (were admitted to the academic degree of either bachelor or licentiate) in surgical techniques from the Kermanshah university of medical

sciences. Among 366 graduates those with address available (275 participants with 173 being female) were first contacted by telephone call and, when agreeing to participate, were provided with a questionnaire including demographic information and information on employment and supplementary education (participation rate 75.1%).

All statistical analyses were performed using SPSS 15. Data are presented as frequencies. Correlations between potential predictors and education as well as between potential predictors and employment were assessed using chi-squared test.

Findings

Among participants 81.5% were employed with unemployment more prevalently being observed among women (P-value = 0.008). As presented in table 1, the highest and the lowest prevalence of unemployment observed among those graduated in 2006 (45.1%) and 1999 (none), respectively. Among employed participants, 62.7% were qualified the academic degree of bachelor and remaining were licentiate. Most

employed participants were employed temporarily and conditionally (42%). Only 3.3% of participants were privileged to be employed with some special opportunity beyond their qualifications and skills.

About 83% of employed participants were working in the Kermanshah province. We failed to locate the working place of 1.4% of participants. Employed participants were mostly (95.2%) working in hospitals affiliated to ministry of health. Length of unemployment period was 1.1 and 5.5 months for periods before and after out-of-center human resource project, respectively. Continuing education was reported by 48% of women and 48.6% of men (P-value >0.05). Among those who continued their education, 94.7% did so to achieve licentiate, 3.0% to master, and 2.3% to medical doctorate. Majority of participants who continued their education did so in nursing (86.5%), 3.7% in surgical techniques, and 9.8% in other fields. As shown in table 2, continuing education was most and least commonly observed among those graduated in 2001 (66.7%) and 2000 (20.7%), respectively.

Table 1. Employment among surgical technicians graduated from the Kermanshah University of Medical Sciences during 1997-2006 across different type of courses (full time vs. part time) and years of graduation.

* No data were available.

Year of graduation	Total		Part time		Full time	
	Employed Number(%)	Unemployed Number(%)	Employed Number(%)	Unemployed Number(%)	Employed Number(%)	Unemployed Number(%)
1997	16(88.5)	2(11.1)	2(100)	0	18(90)	2(10)
1998	13(100)	0(0)	14(93.3)	1(6.7)	27(96.4)	1(3.6)
1999	9(100)	0(0)	*	*	9(100)	0
2000	15(100)	0(0)	13(92.9)	1(7.1)	28(96.6)	1(3.4)
2001	8(80)	2(20)	8(100)	0	16(88.9)	2(11.1)
2002	9(81.8)	2(18.2)	3(100)	0	12(85.7)	2(14.3)
2003	10(83.3)	2(16.7)	13(81.3)	3(18.8)	23(82.1)	5(17.9)
2004	13(65)	7(35)	23(85.2)	4(14.8)	36(76.6)	11(23.4)
2005	18(90)	2(10)	9(81.8)	2(18.2)	27(87.1)	4(12.9)
2006	7(46.7)	8(53.3)	21(58.3)	15(41.7)	28(54.9)	23(45.1)
Total sample	118(82.5)	25(17.5)	106(80.3)	26(19.7)	224(81.5)	51(18.5)

Table 2. Continued education among surgical technicians graduated from the Kermanshah University of Medical Sciences during 1997-2006 across different type of courses (full time vs. part time) and years of graduation

Year of graduation	Full time		Part time		Total	
	Continued Number(%)	Not continued Number(%)	Continued Number(%)	Not continued Number(%)	Continued Number(%)	Not continued Number(%)
1997	10(55.6)	8(44.4)	0(0)	2(100)	10(50)	10(50)
1998	9(69.2)	4(30.8)	5(33.3)	10(66.7)	14(50)	14(50)
1999	3(33.3)	6(66.7)	*	8(100)	3(33.3)	6(66.7)
2000	5(33.3)	10(66.7)	1(7.1)	13(92.9)	6(20.7)	23(79.3)
2001	4(40)	6(60)	8(100)	0(0)	12(66.7)	66(33.3)
2002	6(54.5)	5(45.5)	3(100)	0(0)	9(64.3)	5(35.7)
2003	8(66.7)	4(33.3)	6(37.5)	10(62.5)	14(50)	14(50)
2004	7(35)	13(65)	13(48.1)	14(51.9)	20(42.6)	27(57.4)
2005	12(60)	8(40)	6(54.5)	5(45.5)	18(58.1)	13(41.9)
2006	10(66.7)	5(33.3)	17(47.2)	19(52.8)	27(52.9)	24(47.1)
Total sample	74(51.7)	69(48.3)	59(44.7)	73(55.3)	133(48.4)	142(51.6)

* No data were available.

Discussion

We observed that 81.5% of surgical technicians were employed and 48.4% of continued their education. The employment rate we observed here while being far higher than those previously reported from Rafsanjan (30.5%), is comparable with 80% employment reported by Iranfar et al. for nurses and midwives of Kermanshah (8). Unemployment prevalence rates for students graduated in environmental health were 64.6% and 42.6% for bachelors and licentiates, respectively (9). Hamdi et al determined the employment rate among graduates of the school of health of Isfahan and observed that 28.1% of them were unemployed with 35.6% being studying in a higher educational level (2). These findings show that surgical technicians have an acceptable chance of employment as compared to other graduates. Nonetheless, the unemployment is still high among these graduates considering that mean unemployment rate in the Iran is 11.9%.

In the current study, higher employment rate was observed among men as compared to women. This could, at least partially, be explained by marriage or less inclination towards working among women; since the opportunity

for employment has been shown to be equally provided for men and women.

Our finding interest was that the employment increase from 1997 to 2006. This shows that job opportunity has been becoming available in an increasing fashion; which heralds of favorable trend in employments of surgical technician.

Whether such a favorable is going to be continued in the future, however, remains to be elucidated.

Accepting new students should be based on the prediction made with respect to the future distribution of employment among graduates; the latter in turn should be based on the essential needs the society may encounter in certain era. Otherwise, the society will suffer from non-productive human resource inflation and socio-economic disturbances.

It is noteworthy that employed graduates are easier to trace. It is not surprising to reach graduates who have been employed more commonly than those have not been employed, since employers usually asked applicants to provide their certificate and certificates are usually sent to employers by related unive-

rsities. As such we might have over-estimated the employment rate due to selection bias.

Conclusion

In conclusion, we documented a high rate of unemployment among qualified surgical technicians. Future studies will be required to determine the nation-wide unemployment among qualified surgical technicians. If the findings of the current study are to be reproduced in nation-wide studies, then students would best be guided to other educational fields where society needs most.

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