

### The Effect of Indigenous Selection on Educational Status of the Students of Zahedan University of Medical Sciences

### درامه التأثيرات الناتجة عن الإختيار المحلي للطلاب جامعة العلوم الطبية في زاهدان على وضعم الدراسي

**Background:** Each year many universities are admitting and graduating students, and in this perpetual cycle, paying attention to the quality of education and the environmental conditions are of prime importance. Lack of academic success not only leads to waste of time and cost of training centers, but also causes psychological, familial, and community problems for students and their families. In this study, the effect of switching indigenous status scheme on students' academic career was studied.

**Methods:** In this cross-sectional study all the students enrolled in 86-87 and 87-88 input fields were covered by local switching scheme. Data collection was done through the registered file content and student academic records and information from ministries and judicious organization.

**Results:** Academic status of undergraduate students of Nursing, Midwifery and Family Health Technicians, who have been admitted based on indigenous status method was better than comparison group ( $P < 0.05$ ) and in academic achievements of Associate Degree Students of Environmental and Disease Prevention Sciences no significant difference was seen in both the groups ( $p > 0.05$ ).

**Conclusions:** Considering the academic progress of majority of students admitted with this method, and other influences associated with this admission of students, such as social, cultural, and community economic issues can be improved. This kind of admission can be an appropriate method in admitting students.

**Keywords:** Indigenous; Selection; Student; Educational Status

**التصميم:** ان الجامعات في كل عام تقبل و تخرج عددا كبيرا من الطلاب ، فيزده الدورة المستقرة نظراً لتنوعية التعليم والظروف البيئية تمتاز بكمائه خاصه. ان الفشل في الدراسات الأكاديمية ليست اكلاف وقت واموال المراكز التعليمية فحسب بل ايضاً تسبب مشاكل روحية و نفسية وعائلية واجتماعية للطلاب وعائلة. في هذا البحث ندرس التأثيرات الناتجة عن الإختيارات المحلية للطلاب على وضعم الدراسي. و من الممكن الإستفادة عن نتائج هذا البحث للتخطيط لبرامج تعليمية وطنية شاملة. **الأسلوب:** في هذه الدراسة المقطعية تم دراسة وضع كل الطلاب المحليين الذين التحقوا بالجامعة سنة ٨٧-٨٨ و الطلاب الملتحقين سنة ٨٧-٨٦ بشكل عادي و بعنوان السافدر. و تم مقارنة معدل الدبلوم و المعدل الكلي للإمتحان الدخول و معدل السنة الدراسية الاولى في الجامعة لكلا المجموعتين. و تم جمع المعلومات بالإستفادة من نماذج جمع البيانات و وفقاً لمحتويات سجلاتهم و تراجمهم الجامعية والبيانات من الوزارة المعنية و مؤسسة تنظيم الإمتحانات.

**النتائج :** ان اداء الوضع الدراسي لطلاب مرحلة بكالوريوس التمريض و بكالوريوس القبالة و فوفه دبلوم صحة الاسرة الذين تم اختيارهم بشكل محلي افضل من المجموعة الأخرى  $p < 0.05$  و الأداء الدراسي لطلاب فوفه دبلوم صحة البيئية و دبلوم مكافحة الامراض لم يسجل اي اختلاف ذات معنى لدى المجموعتين  $p > 0.05$ .

**الإستنتاج :** بما أن الغالبية التي انتخبت عبر هذا الأسلوب ادائهم الدراسي افضل. فإنهم بالطبع من الناحية الإجتماعية و الإقتصادية و الثقافية موفقين ايضاً. لذا فإن جذب الطلاب الجامعيين عبر هذه الطريقة يمكن ان يكون له ناتج و تأثير كبير.

**الكلمات الرئيسية :** محلي. منتخب. طالب. الأداء. الدراسي.

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### بررسی تاثیر بومی گزینی بر وضعیت تحصیلی دانشجویان دانشگاه علوم پزشکی زاهدان

**زمینه و هدف :** دانشگاهها هرساله تعدادی زیادی دانشجو را پذیرش و دانشجویانی را فارغ التحصیل می کنند در این چرخه مستمر توجه به کیفیت آموزش و شرایط محیطی از جایگاه ویژه ای برخوردار است. عدم موفقیت تحصیلی نه تنها باعث اتلاف وقت و هزینه های مراکز آموزشی خواهد شد، بلکه باعث ایجاد مسائل روحی، خانوادگی و اجتماعی برای دانشجویان و خانواده ایشان می شود. در این تحقیق تاثیر بومی گزینی بر وضعیت تحصیلی دانشجویان مورد بررسی قرار گرفت.

**روش:** در این مطالعه مقطعی، کلیه دانشجویان ورودی ٨٨-٨٧ که در رشته های خاص به روش بومی گزینی پذیرفته شدند و کلیه دانشجویان ورودی ٨٧-٨٦ همان رشته های تحصیلی که به روش عادی پذیرش شده بودند، به عنوان گروه شاهد، وارد مطالعه شدند، مواردی همچون معدل دیپلم، رتبه کل کنکور و معدل سال اول تحصیل در دانشگاه در این دو گروه با هم مقایسه شد. جمع آوری اطلاعات با استفاده از فرم جمع آوری اطلاعات و با توجه به مندرجات پرونده ثبت نامی و کارنامه تحصیلی دانشجویان و اطلاعاتی از وزارتخانه و سازمان سنجش انجام شد.

**یافته ها:** وضعیت تحصیلی دانشجویان کارشناسی پرستاری، کارشناسی مامایی و کاردانی بهداشت خانواده، که به روش بومی گزینی انتخاب شده بودند، بهتر از گروه مقایسه بود. ( $P < 0.05$ ) وضعیت تحصیلی دانشجویان کاردانی بهداشت محیط و کاردانی مبارزه با بیماریها در دو گروه دانشجویان با هم اختلاف معنی داری نداشت. ( $P > 0.05$ )

**نتیجه گیری :** باتوجه به بهبود وضعیت تحصیلی دانشجویان اکثریت رشته هایی که به این روش انتخاب شده بودند و همچنین سیرتاثیراتی که بومی گزینی در ارتباط با مسائل اجتماعی، فرهنگی و اقتصادی جامعه می تواند داشته باشد، جذب دانشجویان به این روش، می تواند یکی از روشهای مناسب باشد.

**کلمات کلیدی :** بومی؛ گزینش؛ دانشجو؛ وضعیت تحصیلی

### زاهدان میثیکل یونیورسٹی میں مقامی طلباء کے داخلوں سے طلباء کی تعلیم پر ہونے والے اثرات

**بیک گراؤنڈ:** ملک کی یونیورسٹیاں ہر سال سیکڑوں بلکہ ہزاروں طلباء کو مختلف شعبوں میں داخلے دیتی ہیں اس کا مقصد طلباء کی اچھی تعلیم اور وسائل و ذرائع کا بہتر استعمال ہوتا ہے۔ یونیورسٹی تعلیم کا ہدف یہ ہے کہ طلباء عمدہ طریقے سے تعلیم حاصل کر کے معاشرے کے لئے مفید بن جائیں۔ طلباء کا تعلیم میں کامیاب نہ ہونے ان کے لئے اور ان کے گھرانوں کے لئے مختلف سماجی اور اقتصادی مسائل کا سبب بنتا ہے۔ اس تحقیق میں یہ جاننے کی کوشش کی گئی ہے شہروں میں مقامی طلباء کے داخلے سے ان کی تعلیم پر کیسے اثرات پڑتے ہیں۔ یہ تحقیق ملک کے لئے جامع منصوبہ بندی میں مفید واقع ہوسکتی ہے۔

**روش :** اس تحقیق میں دوہزار آٹھ اور نو میں مختلف شعبوں میں داخلہ لینے والے طلباء کو شامل کیا گیا۔ یہ سب مقامی طلباء تھے۔ اس کے علاوہ دوہزار سات اور دوہزار آٹھ میں داخلہ لینے والے طلباء کو بھی شامل کیا گیا۔ ان دونوں گروہوں کے کالج کے نمبر اور انٹرنس سٹ کے نمبر نیز یونیورسٹی کے پہلے برس کے نمبروں کا آپس میں موازنہ کیا گیا۔

**نتائج :** اس موازنے سے پتہ چلا کہ نرسنگ، مڈ وائفری، گھرانے کی صحت کے شعبوں کے طلباء کی پوزیشن جو کہ مقامی تھے غیر مقامی طلباء سے بہتر تھی البتہ دوسرے گروہوں میں کوئی خاص فرق نہیں تھا۔

**سفرشات :** اکثر شعبوں میں مقامی طلباء کی بہتر کارکردگی سے ظاہر ہوتا ہے کہ شہروں میں مقامی طلباء کو داخلے دینے سے ان کی کارکردگی بہتر ہوتی ہے اور سماجی، ثقافتی اور اقتصادی لحاظ سے بھی ان پر بہتر اثرات مرتب ہوتے ہیں لہذا طلباء کو تعلیم دینے کی یہ بہتر روش مانی جاتی ہے۔

**کلیدی الفاظ :** مقامی طلباء، تعلیمی صورتحال۔

## INTRODUCTION

One of the concerns of each educational system is the principles of student acceptance, so that in addition to the decrease of cultural and economical burden resulted from this process and the development of the quality of education, student admission through indigenous selection in medical science universities all over the country is mostly done in majors such as nursing, midwifery, associate degree of environmental health, associate degree of disease protection, associate degree of family health and B.S. of health. Based on this policy in the mentioned majors at least 60% of the capacity is allocated to local students and in no university indigenous selection is 100%, student admission through indigenous selection is done with the purpose of education quality increase and decreasing economical, social, and cultural costs in the country (1).

Preventing educational failure and its resulted psychological harms and improving the quality and efficiency of education need paying attention to individual and educational specifications of the students and effective factors of education process and their function (2). Various factors are influential in the quality of education and student learning and one of the most important of these factors is student preparation from the point of physics, feelings, sentiments, and mind. It's clear that studying and living with the family can affect most of these factors (3). In a large number of studies one of the reasons of educational failure has been being far away from family and experiencing sentimental and social problems (4,5). Educational failure, happened as a result of any reason, not only causes the students to face psychological problems but also even in case of graduation the efficiency level does not match the needs of the society and in case of not correcting the education process and decrease of effective factors of educational quality, we will face various financial disadvantages and social dissatisfaction (6,7,8,9). Therefore, according to this type of indigenous selection, conduction of this study is inevitable.

Lots of studies which have been conducted in the case of student education failure have just pointed that indigenous or not indigenous selection has been an effective factor, while in this study we have examined the indigenous selection of students and its effect on the educational status of the students.

## METHODS

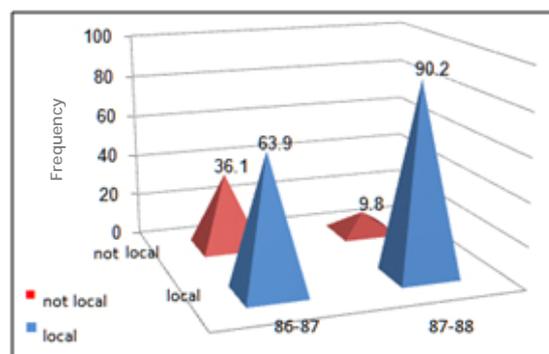
The present study is cross-sectional and descriptive-analytical which has been conducted in Zahedan University of Medical Sciences, all the students who had been admitted in 87-88 and were included in indigenous selection entered the study and the majors included B.S. of nursing, B.S. of midwifery, associate degree of environmental health, associate degree of disease prevention and associate degree of family health. Also all the students of the mentioned majors who had been admitted through the normal selection method were considered as the comparison group. Totally 365 students entered the study through census. Data collection tool was a form planned by a researcher which included information about the field of study, educational level, entrance exam rank, diploma average score, first term average score, second term average score, and the total average score of the study. For determining

the validity of the data collection form content validity was used, in a way that the items of this form were planned by three faculty members. The total rank of entrance exam, diploma average score, and also being local or not were extracted from the data gotten from Sanjesh Organization, also the average scores of the first and second term and the total average score of the first educational year were gotten from the data existing in the education office with the assistance of the education experts. Diploma average score and total rank of entrance exam were considered as the criteria of educational status assessment before getting admitted in university and the total average score of the first year was considered as the main criteria of assessing educational status of the students after getting admitted in university. For keeping the information credential, a code was allocated to each questionnaire based on the person's major, level, and faculty. The total rank of the admitted students and average score of the students who had entered university in 87-88 who were chosen through indigenous selection were compared with those accepted in university in 86-87 and were selected normally. The compared groups were separated based on the field of study and degree and the scientific status of the students while starting university was considered as the comparison criteria, also the average score of the first and second term and total average score of the first year were considered as the educational status assessment of the students.

After data collection, data was analyzed by SPSS software and independent t-test and  $P < 0.05$  was considered as meaningful.

## RESULTS

By applying the policy of indigenous selection, the rate of admission of local students in majors which were included in this selection, increased by 90.21% in 87-88 while it was 63.9% in 86-87, as it is shown in figure 1.



**Figure 1. The frequency of the medical sciences students in two study groups based on their entrance year to the university.**

Described entrance years are solar years.

According to table 1, the mean of total rank of B.S nursing and midwifery students in entrance exam who were admitted through indigenous selection was lower than the mean score of students admitted through the common method ( $P < 0.05$ ). In environmental health (associate degree) the total rank of the admitted students through indigenous selection was higher ( $P < 0.05$ ). In family health (associate degree) and disease prevention, there was not a

significant difference between the total rank of entrance exam of those admitted through indigenous selection and common method ( $P > 0.05$ ). Diploma average score of those admitted in B.S. of midwifery chosen through indigenous selection was higher than those chosen through the common method ( $P < 0.05$ ). In other majors which were included in indigenous selection the average score of the

two groups did not differ ( $P > 0.05$ ).

According to table no 2, the average score of the first term of B.S. nursing, midwifery, associate degree of family health in indigenous selected students had increased ( $P < 0.05$ ) but in two majors of associate degree of environmental health and disease prevention, there was not a meaningful difference ( $P > 0.05$ ).

**Table 1. The comparison of the educational status of students before getting admitted in the two study groups.**

Field of study	Diploma average score Mean (SD)	P Value	Total rank of entrance exam Mean (SD)	P Value
B.S. of Nursing 86-87	15.6(2.01)	0.8	81828(61002)	0.0001
B.S. of Nursing 87-88	15.52(1.92)		48509(21114)	
B.S. of Midwifery 86-87	15.85(2.13)	0.002	70453(47120)	0.0001
B.S. of Midwifery 87-88	16.96(1.36)		40279(19246)	
Environment health (associate degree) 86-87	14.62(1.64)	0.291	83722(27269)	0.042
Environment health (associate degree) 87-88	14.08(1.67)		99238(19861)	
Family health (associate degree) 86-87	14.83(1.76)	0.437	102843(45260)	0.241
Family health (associate degree) 87-88	14.54(1.62)		93186(24765)	
Disease prevention(associate degree) 86-87	12.99(1.38)	0.734	104898(21681)	0.13
Disease prevention(associate degree) 87-88	13.16(1.69)		117475(31290)	

BS denotes Bachelor of Science and DOE denotes date of entrance to the university.

**Table 2. The comparison of educational status of students after entering the two groups understudy separated by major.**

Field of study	First term average Mean (SD)	P Value	second term average Mean (SD)	P Value	Total average score of year Mean (SD)	P Value
B.S. of nursing 86-87	13.4(1.46)	0.013	14.02(1.39)	0.1	13.66(1.23)	0.017
B.S. of nursing 87-88	14.2(1.77)		14.5(1.40)		14.34(1.52)	
B.S. of midwifery 86-87	13.36(1.85)	0.0001	14.03(1.35)	0.0001	13.64(1.5)	0.0001
B.S. of midwifery 87-88	15.05(1.54)		16.13(1.17)		15.59(1.26)	
Environment health (associate degree) 86-87	14.91(1.33)	0.518	16.59(1.46)	0.173	15.76(1.7)	0.587
Environment health (associate degree) 87-88	15.24(1.59)		15.85(1.62)		15.51(1.57)	
Family health (associate degree) 86-87	13.64(1.17)	0.0001	14.78(1.48)	0.994	14.20(1.13)	0.04
Family health (associate degree) 87-88	14.94(1.44)		14.78(1.71)		14.84(1.53)	
Disease prevention(associate degree) 86-87	14.41(1.73)	0.542	14.58(1.54)	0.117	14.46(1.61)	0.269
Disease prevention(associate degree) 87-88	14.10(1.09)		13.89(0.97)		13.96(0.93)	

BS denotes Bachelor of Science and DOE denotes date of entrance to the university.

The average score of the second term of B.S. of midwifery, in indigenous selection group increased ( $P < 0.05$ ) and in other majors there was not a meaningful difference ( $P > 0.05$ ). The total average score of the first year in B.S. of nursing, midwifery and associate degree of family health in students selected through indigenous selection increased ( $P < 0.05$ ). In environmental health and disease prevention there was not a difference between the two groups ( $P > 0.05$ ).

## DISCUSSION

The results of the present study showed that the educational status of B.S. nursing, midwifery, and associate degree of family health that were chosen through indigenous selection had improved more than students selected through the common method. Also a lot of studies had found a significant relationship between educational success and being local, for example in Janzadeh's study the local students who lived with their families were more successful than other students, also in Tagharobi et al.'s study educational failure of local students was less than those who were not local (10,11). In this study the educational status of students of associate degree of environmental health and disease prevention was not meaningfully different from the control group. Hazavehee et al.'s study in Hamedan University of medical sciences which was conducted for finding out the reasons of educational failure and Raoufi et al.'s study in Tabriz university of medical sciences got similar results (12,8).

As in Ashtiani et al.' study that students with higher average score; were also more successful in university and vice versa, in this study also we can see that midwifery students with higher diploma average score, are more successful in university as well (13).

In khazaei et al.'s study in Kermanshah medical school, the type of privilege (sahmieh) of entrance exam has been

identified as one of the influential factors of educational success or failure, in a way that students of regions of 1 and 2 had better educational conditions and other students with special privileges because of the area they used to live had more educational failure, in this study which was conducted for the first time in student selection in specific majors with indigenous selection, the educational success was more among local students (selected through indigenous selection), it is worth mentioning that in some majors no significant difference was observed (14).

The strong point of this study was accessibility and accuracy of information and the limitation of the study was not being able to follow up the students' educational status.

**Conclusion:** According to the improvement of the educational status of the students of the most of the majors selected through this method and other effects of indigenous selection on social, cultural, family economy, and society, this method of student selection can be generalized to more majors and universities. In order to reach this goal, it is suggested that studies be conducted in the case of continuity of indigenous selection effects during education period of students as, studying students' and their families' opinions in this case and the possibility of developing this method of student admission in other majors and universities.

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## REFERENCES

- 1- Ministry of health and medical education website. Available from: URL; <http://www.behdasht.ir> [In Persian].
- 2- Fakharian E, Tagharrobi Z. Risk factors of course retaking, academic probation and graduation delay in graduate students of Kashan University of Medical Sciences medical school during 1986-2003. *Strides in development of medical education* 2010; 7(2): 153-60. [In Persian].
- 3- Smeltzer SC, Bare BG. Brunner and Sudarth textbook of medical surgical nursing. 11th ed. Canada: Lippincott; 2006.
- 4- Moniri R, Ghalebtarash H, Mussavi GA. The reasons of educational failure among paramedical students in Kashan University of Medical Sciences. *Iranian journal of medical education* 2006; 6(1): 135-40. [In Persian].
- 5- Tamannaifar MR, Mohammadabadi FS. The Relationship between mental health and happiness with academic success of university students. *Islamic University journal* 2011; 15 (2): 39-52. [In Persian].
- 6- Tagharrobi Zahra, Fakharian Esmaeil, Factors Influencing Probation in Graduated Students of Kashan Faculty of Nursing and Midwifery. *Iranian journal of medical education* 2009; 9(1): 21-9. [In Persian].
- 7- Motlagh ME, Elhampour H. Factors affecting students' academic failure in Ahwaz Jundishapur University of Medical Sciences in 2005. *Iranian journal of medical education* 2008; 8(1): 91-9. [In Persian].
- 8- Hazavehei MM, Fathei Y, Shamshiri M. Study on causes of students and academic probation in Hamadan University of Medical Sciences, 2001-2002. *Strides in development of medical education* 2006; 3(1): 33-42. [In Persian].
- 9- Edalatkah H, Jahangiri S. The educational situation of graduates in Ardabil University of Medical Sciences. *Iranian journal of medical education* 2005; 5(2): 193-5. [In Persian].
- 10- Janzadeh A. Factors influencing academic failure of students in public universities. *Journal of higher education* 2011; 3(3): 137-63. [In Persian].
- 11- Tagharrobi Z, Fakharian E. Miserable outputs of a faculty and its related factors. *Iranian journal of education strategies* 2011; 3(4): 183-8. [In Persian].
- 12- Raoufi M, Sedaghat K. Personal and familial factors influencing academic failure of students in Tabriz University of Medical Sciences in 1383-84. *Medical journal of Tabriz University of Medical Science and Health Service* 2008; 29(4): 113-5. [In Persian].
- 13- Changizi Ashtiani S, Shamsi M. Frequency of educational decline and some effective factors of student's opinion in Arak University of Medical Sciences, 2009. *Arak University of Medical Sciences Journal* 2010; 12(4): 24-33. [In Persian].
- 14- Khazaei M, Rezaii M. Survey of personal and educational characters in unsuccessful medical students in compare with success students. *Journal of Semnan University of Medical Sciences* 2008; 9(2): 87-92. [In Persian].