

### A Comparative Study of Self-efficacy and Self-esteem among Students of Islamic Azad University of Medical Sciences Mashhad Branch

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**Background:** the main purpose of medical education system is that the students achieve the highest levels of learning and professional competency. Training of skilled physicians is based on three domains including educational planning, environment, and psychological situation.

**Methods:** Our study is a descriptive-analysis, conducted on 119 students including medical, nursing and midwifery groups at Islamic Azad university of Mashhad. The sampling was nonprobability and our research tools were general self-efficacy scale and Rosenberg self-esteem scale.

**Results:** Among 119 samples, 26 were male and 93 were female. In accordance with discipline, 63, 38 and 18 were related to medical, obstetrics and nursing, respectively. Range of age was 18-34, and the mean of age was around 23. Correlation of self-efficacy and self-esteem scores was significant. ( $P=0/0001$ ), there was significant difference between general self-efficacy and sex, age and discipline.

**Conclusion:** Data showed average scores of self-efficacy and there was difference among research groups. Thus, in order to improve, it is necessary to reevaluate the infrastructures, programming and education environment. In other words, it is mandatory to reevaluate mentioned factors to achieve higher self-efficacy among students, such as using new methods of teaching strategies and clinical assessment for educational aims.

**Keywords:** self-efficacy, self-esteem, medical student, nursing student, midwifery student

### بررسی مقایسه ای احساس خودکارآمدی و عزت نفس در دانشجویان علوم پزشکی دانشگاه آزاد اسلامی مشهد

**زمینه و هدف:** رسالت اساسی سیستمهای آموزش پزشکی رساندن دانشجویان به بالاترین سطح یادگیری یعنی شایستگی حرفه ای است تا دانشجو هنگام فارغ التحصیلی ضمن اینکه مهارتهای مختلف را فرا گرفته، با کفایت، اعتماد به نفس و اطمینان به توانمندیهای خود، آموخته های خود را اجرا نماید. برای تربیت پزشکان کارآمد سه مولفه برنامه ریزی آموزشی، شرایط محیط آموزش و عوامل روانشناختی بایستی مورد توجه قرار گیرد. بنابراین، خودکارآمدی را باور فرد به توانایی انجام عملکردهای مورد نظر تعریف نموده است، خودکارآمدی شامل عزت نفس نیز می شود که واسطه بین دانش و رفتار است.

**روش پژوهش:** حاضر مطالعه ای توصیفی-تحلیلی است که بر روی ۱۱۹ نفر از دانشجویان رشته های پزشکی، پرستاری و مامایی دانشگاه آزاد اسلامی مشهد انجام گرفت. روش نمونه گیری تصادفی ساده و ابزار پژوهش پرسشنامه های استاندارد عزت نفس روزبرگ و General Self-Efficacy Scale بود.

**یافته ها:** نمونه ۱۱۹ دانشجوی شامل ۲۶ نفر مذکر و ۹۳ نفر مؤنث که ۶۳ نفر رشته پزشکی، ۳۸ نفر رشته مامایی و ۱۸ نفر رشته پرستاری میباشند. دامنه سنی نمونه ها ۱۸-۳۴ سال و میانگین سنی ۲۳ سال بود. همبستگی میان نمرات احساس خودکارآمدی و عزت نفس، معنی دار ( $p=0.000$ ) گزارش شد. سن و رشته تحصیلی با نمره احساس خودکارآمدی ارتباط معنی دار داشتند.

**نتیجه گیری:** باتوجه به اینکه نمرات احساس خودکارآمدی در سطح متوسط میباشند تفاوت بین رشته ای نیز وجود دارد جهت ارتقا آن میتوان مولفه برنامه ریزی و محیط آموزشی را مورد بررسی قرار داد. بازنگری برنامه ریزیهای آموزشی و اصلاح زیرساختها و شرایط محیط آموزشی، استفاده از روشهای نوین ارزشیابی بالینی و استراتژیهای تدریس و... جهت افزایش خودکارآمدی دانشجویان و نیل به اهداف متعالی آموزشی ضروری می باشد.

**واژه های کلیدی:** خودکارآمدی، عزت نفس، دانشجویان پزشکی

### دراسة مستوى الثقة بالنفس و عزة النفس عند طلاب العلوم الطبية في الجامعة الإسلامية الحرة في مدينته مشهد

**التمهيد والهدف:** إن من أهم وظائف الانظمة التعليمية الطبية إضمار الطالب الى أعلى مستوى من التعلم واللباقة الحرفية حتى يكون عند الطالب بعد التفرغ المبرارة والثقة بالنفس الكاملة في مجال العمل. هناك ثلاث أمور أساسية في مجال تربية أطباء ذكفانته: ١- البرمجة الدراسية -٢ المحيط التعليمي ٣- العوامل النفسية. يعرف بندورا الكفانته، بالثقة بالنفس في اداء العمل. والكفانته تشمل عزة النفس التي تكون بشكل واسط بين المعرفة والعمل.

**الأسلوب:** هذه الدراسة الوصفية - التحليلية تم اجراء لها على ١١٩ من طلبة فرع الطب والتربية واختصاصي القابلة في الجامعة الإسلامية الحرة في مدينته مشهد. كان الاختيار بشكل عشوائي وتم جمع المعلومات عبر استمارة روزبرك و General self Efficacy scale لمعرفة عزة النفس.

**النتائج:** من اصل ١١٩ طالب كان ٢٦ ذكور و ٩٣ انثى. و ٦٣ من فرع الطب. ٣٨ قابله و ١٨ فرع التربية. الاعمار كانت تتراوح بين ١٨-٣٤ سنة و معدل العمر كان ٢٣ سنة. المعدل الاحصائي المرتبط به معدل العلامات وحسن الكفانته وعزة النفس كان ذو معننى ( $p=0.000$ ) كان هناك ارتباط ذو معننى بين الجنس والسن والفرع و من جهة و علامه حسن الكفانته من جهة اخرى.

**الاستنتاج:** نظرا الى إن علامه حس الكفانته كانت في الحد المتوسط و كان هناك فروق واضع بين الفروع نرى انه يجب الإلتفات الى البرمجة التعليمية و المحيط التعليمي لأجل رفع المستوى. ان تجديد النظر في البرمجة التعليمية واصلاح اليرس و شرائط المحيط التعليمي و استخدام أساليب التقييم السريري الحديثة و استراتيجيات التدريس و ... لأجل رفع مستوى الكفانته عند الطلاب والوصول الى اهداف التعليم امر ضروري جدا.

**الكلمات الرئيسية:** الكفانته ذاتية، عزة النفس، طلاب الطب

### مشهد میں اوپن میڈیکل یونیورسٹی کے میڈیکل طلباء میں احساس ذمہ داری، عزت نفس اور خود اعتمادی کا جائزہ

**ہیک گراؤنڈ:** کسی بھی تعلیمی نظام خواہ میڈیکل ہو یا غیر میڈیکل اسکا بنیادی ہدف یہ ہوتا ہے کہ طلباء اعلیٰ ترین پیشہ ورانہ صلاحیتوں کے مالک بن جائیں اور فارغ التحصیل ہونے کے بعد اپنی ان صلاحیتوں کو بروئے کار لا کر خود اعتمادی عزت نفس اور اطمینان سے دوسروں کی مدد کریں۔ میڈیکل طلباء کی ٹریننگ کے لئے تعلیمی نصاب، تعلیم کا ماحول اور نفسیاتی عوامل کو مد نظر رکھنا ضروری ہے۔ بندورا کہتا ہے کہ احساس ذمہ داری سے مراد فرد کا اپنی صلاحیتوں کو عملی شکل دینا ہے۔ احساس ذمہ داری میں عزت نفس بھی شامل ہے جو علم اور رفتار و گفتار کے درمیان پل کی حیثیت رکھتی ہے۔

**روش:** یہ ایک تجزیاتی تحقیق ہے جس میں ایک سو انیس میڈیکل، نرسنگ اور میڈیواترفی کے طلباء و طالبات نے شرکت کی۔ ان کا تعلق مشهد میں اوپن میڈیکل یونیورسٹی سے ہے، ریڈم طریقے سے طلباء کا انتخاب کیا گیا۔ ڈاتا کا تجزیہ روزبرگ کے اصولوں اور جنرل سلف ایفی شی اینسی اسکیل سے کیا گیا۔

**نتیجے:** ایک سو انیس طلباء میں چھبیس مذکر تھے جبکہ ترائوے طالبات تھیں۔ ترسنو افراد میڈیکل کے طلباء تھے جبکہ اڑتیس کا تعلق میڈیواترفی سے تھا اور اٹھارہ افراد نرسنگ کے شعبے سے منسلک تھے۔ اس طلباء و طالبات کی عمریں اٹھارہ سے چونتیس برس کی تھیں اور اوسط عمر تیس برس تھی۔ طلباء طالبات کے جوابوں سے معلوم ہوتا ہے جنس، عمر اور تعلیمی موضوع کا احساس ذمہ داری سے کافی گہرا رابطہ ہے۔

**سفارشات:** اس تحقیق سے واضح ہوتا ہے کہ احساس ذمہ داری کے نمبر متوسط ہیں لہذا طلباء کی عزت نفس اور احساس ذمہ داری کو بڑھانے کے لئے نصاب پر توجہ دینے اور اسے وقت کے تقاضوں کے ساتھ ڈھالنے کی ضرورت ہے، اسی طرح تعلیم کے ماحول پر بھی نظر ثانی کرنی پڑے گی۔ تدریس کے نئے اصولوں کو بھی اپنانا ضروری لگتا ہے۔ تعلیمی اہداف کے حصول کے لئے طلباء و طالبات میں عزت نفس کے احساس اور ذمہ داری کا احساس جگانا تعلیمی سسٹم کی بنیادی ذمہ داری ہے۔

**کلیدی الفاظ:** احساس ذمہ داری، عزت نفس، اعلیٰ اہداف .

## INTRODUCTION

Health of a community depends on the level of services offered by physicians and paramedical professions. Therefore, identifying and resolving the barriers of performance, self-efficacy and self-esteem in clinical education should be considered in the training phase of Medical students. By increasing the sense of self-esteem, universities should provide a suitable ground for the successful completion of the study, and helping students to achieve their professional role.

Albert Bandura in his Social Cognitive Theory (sociocognitive theory), and in response to environmental factors in determining the human behavior or internal states, says that personal behavior will form through reciprocal interaction between environmental and personal factors(1). Concisely, Bandura considers this issue as a reciprocal determination in which the person, environmental and behavioral cognitive factors affect each other; and neither of them is a determinant of human behavior lonely. Bandura's social cognitive theory is based on a tripartite model including behavior, the environment and the individual. It models the interaction between behavior and environmental impact of personal factors (cognitive, emotional, and biological) that perception is used to describe the psychological functions(2, 3).

In current theories and researches on the psychology, the role of personal beliefs and inner strength have been mentioned, for example, Bandura (1977) says that the inner strength of self-evaluation or external evaluation of the enhancement provided by others is more powerful. Bandura brought up a concept of the self (self-efficacy) as an important cognitive variable that can contribute to their success and dominance of the role of each person. Bandura definition of self-efficacy is: the belief in one's ability to conduct his/her affairs so that it will lead to a happy outcome(1-3). Some studies state that people who have high self-efficacy usually try harder; they are more successful, show more persistence and experience less fear toward persons with lower self-efficacy imagination(1, 4). Bandura suggests that people with high levels of perceived self-efficacy perception experience less uncertainty. Since people cannot control events that affect them, they become afraid and uncertain, however, people with high levels of perceived self-efficacies become less afraid(3).

Several studies suggest that self-confidence and the confidence in doing things on one's own abilities (self-efficacy) includes self-esteem, as well. Self-confidence can be isolated through two levels: self-competence and self-interest. Jurisdiction is a valuable personal experience, in which the person feels himself/herself as a cause of an action, and with conscious and deliberate attempts, tries to gain experience and earn the outcomes of interest and needs through training and experience. So the level of competence can be positive or negative direction of inclusion. Self-interest, as another dimension of self-esteem, provides useful qualifications and new factors for the individual as a social being. Proceeding to develop this interest is a sense of social values within which the individual

may experience. Many findings imply that high self-esteem and positive components of psychological issues such as optimism, coping effectively, and even physical health is associated with positive emotions. The low self-esteem is also associated with the negative psychological characteristics such as depression, fear, shyness and loneliness. Accumulating evidence also suggests that low self-esteem is associated with psychological disorders(4, 5). Other study showed that people with low self-esteem prefer to work with groups who have fewer skills because they feel less pressure in the group while individuals with high self-esteem, on the contrary, tend to participate in high skills groups. Accordingly, the students who have more self-efficacy, intention, stamina and perseverance in their learning tasks, have more confidence in their own ability(6). Active learner, without the need to be monitored, tries to learn, monitor and evaluate his learning. Self-efficacy is very effective on the person's behavior; for example, a student with low self-efficacy may not even prepare himself/herself for a test, because he thinks that no matter how hard he tries, it will be to no avail. In contrast, a person with high levels of efficacy is more hopeful and prosperous in doing his affairs and this issue gives him an ability to control and monitor his behavior and examine their own criteria and, if necessary, to punish or to reinforce their goals in order to reach them(7).

A study showed the relationship between self-efficacy and progresses. The results revealed that there is a correlation ( $R=0.37$ ) between self-efficacy and educational progress; the development variance was 0.14. Providing effective learning opportunities, necessary environmental conditions, mental continued preparatory and psychological factors, and three detailed plans should be considered in order to achieve specific goals(8). This study examines the current status of psychological factors in sense of self-efficacy and self-esteem of medical students, nursing and midwifery, moreover, it compares the deals.

## METHODS

This is a descriptive - analytic study, conducted on 119 of medicine, nursing and midwifery students, from Islamic Azad University of Mashhad. A random sample was drawn from student based on their numbers. Standardized questionnaires of Rosenberg self-esteem (5) and self-efficacy (9) were the research instruments as well as questions related to demographics of the representatives. Rosenberg Self-Esteem Scale, a ten-item scale, is based on self-reporting and cognitive dimensions of self-esteem, in other words, the overall self-esteem is measured. Any statement in this scale has four items. They range from strongly agree (score 4) to strongly disagree (score 1). The overall score between 40-10 is the higher score that indicates higher self-esteem. The extensive research on this tool is not limited to Rosenberg. Several studies (10, 11) have evaluated about the psychometric characteristics of the instrument in different European countries (12), China (13) and Japan (14). In various studies the reliability and validity of the Rosenberg Self-esteem Scale were confirmed. Correlation with the total score of this scale was high. For measuring

self-efficacy, general self-efficacy scale consists of 10 questions on the standard four-point Likert scale, and used in 23 countries and its Cronbach coefficient is 83%. This scale was translated to Persian in 1996. The scale consists of 10 questions, including "If I ever tried to make enough to be able to solve difficult problems" It is quite correct that the alternatives are simply not true and is graded from 1 to 4. Getting a high score on this scale indicates a higher general self-efficacy and vice versa. This scale is used to predict the consistency of life changes, or as an index of life quality at every stage of growth and changes in clinical behavior. After completing the questionnaire, data were analyzed. Descriptive statistics were derived based on variables and the normality of the data, analysis, and Tukey test was used to compare each mean. IBM SPSS 20 software was used in this analysis and significance tests have been less than 0/05.

## RESULTS

Among 119 samples, 26 were male and 93 were female. 63 of samples were studying medicine, 38 of them were midwifery students and 18 people have enrolled in nursing. The age range was 18-34 and mean age of the subjects was 23. The minimum Rosenberg scale was 22, the maximum score was 31 and the average score of Rosenberg self-esteem was 26. The minimum score of general self-efficacy was 10, the maximum score was 34 and the average scores of general

self-efficacy was 24. Correlation between scores of self-esteem and self-efficacy was significant ( $p=0.000$ ).

Table 2 shows the distribution of scores on Rosenberg scale based on the variables. Statistical data present there was no significant relationship among the Rosenberg scale and disciplinary ( $p = 0.441$ ), age ( $p = 0.348$ ) and sex ( $p = 0.338$ ). The lowest self-efficacy was 10, the highest was 34, and the mean of self-efficacy was 24. The correlation between scores on self-esteem and feelings of self-efficacy was reported significant ( $p = 0.000$ ). General self-efficacy scores in different stage of medical education (basic sciences, extern and Internee) had no significant difference but in different fields of medicine (24.5) in Midwifery (26.3) and nursing (23.7) the results are as follows. Therefore in this study, general self-efficacy scores showed significant difference according to gender, age and discipline, so that it was higher in boys (25.9) and lower in girls (24.7).

Table 3 shows the distribution of general self-efficacy scores based on variables.

Statistical analysis showed that according to Table 4, there is a significant relationship between self-efficacy and academic disciplinary, age and sex.

## DISCUSSION

In this study, feelings of self-efficacy and self-esteem were positively correlated, however, self-esteem has always been in relation with general and social self-efficacy.

**Table 1. Descriptive statistics of self-efficacy and self-esteem's overall scores**

	Minimum	Maximum	Mean	Standard Deviation
Age	18	34	23	3
Rosenberg	22	31	26	2
General Self-Efficacy Scale	10	34	25	5

**Table 2. Rosenberg Scale scores based on the distribution of variables**

		Minimum	Maximum	Mean	Standard Deviation
Age	21>	22.0	31.0	26.8	2.1
	21-25	22.0	31.0	26.4	2.0
	26-30	23.0	28.0	26.1	1.9
	30 <	23.0	27.0	25.0	2.0
Gender	Male	23.0	29.0	26.5	1.8
	Female	22.0	31.0	26.4	2.0
Student disciplinary	medicine	22.0	31.0	26.3	2.1
	Midwifery	23.0	30.0	26.7	1.7
	nursing	22.0	29.0	26.3	2.2
Medical students stage	Basic sciences	23.0	31.0	26.9	2.5
	extern	22.0	31.0	26.2	2.1
	Interne	24.0	28.0	26.3	1.4

**Table3. distribution of general self-efficacy scores based on variables.**

		Minimum	Maximum	Mean	Standard Deviation
Age	21>	13.0	34.0	24.7	5.5
	21-25	10.0	34.0	25.4	5.3
	26-30	17.0	31.0	23.5	4.8
	30 <	10.0	22.0	17.0	6.2
Gender	Male	10.0	34.0	25.9	5.4
	Female	10.0	34.0	24.7	5.4
Student disciplinary	medicine	11.0	34.0	24.5	5.0
	Midwifery	10.0	34.0	26.3	5.8
	nursing	10.0	31.0	23.7	5.9
Medical students stage	Basic sciences	18.0	34.0	24.5	4.3
	extern	11.0	34.0	24.4	5.2
	Interne	18.0	34.0	24.9	5.3

**Table 4. Association of self-esteem and general self-efficacy with academic discipline, age and gender**

		General self-efficacy		Rosenberg self esteem	
		Mean	sig	Mean	sig
Student disciplinary	Medicine	24.5	0.024	26.3	0.441
	Midwifery	26.3		26.7	
	Nursing	23.7		26.3	
Gender	Male	25.9	0.028	26.5	0.338
	Female	24.7		26.4	
Age	<21	24.7	0.019	26.8	0.348
	21-25	25.4		26.4	
	26-30	23.5		26.1	
	>30	17.0		25.0	

Wulff and Steitz suggested that there is a general correlation between self-esteem and self-efficacy ( $r=0.38$ )(15), Klein and Betz reported this correlation is  $r=0.53$  for men and  $r=0.43$  for women(16). These studies show that there is a moderate relationship between self-esteem and self-efficacy structures, to the extent that some other researchers argue that these structures are both one structure.

This study found no significant relationship between self-esteem and age, gender and academic disciplinary of the students. In EMIL'S research (2003), there was no difference between self-esteem scores and gender of the METU students, but the score of students' achievement were higher than students' failure and there was a significant relationship between anxiety and interpersonal problems, environmental compatibility, family problems, self-esteem and etcetera(10). Naderi et al (2009) reported (from the Iranian students in Malaysia) a significant difference between self-esteem and gender, which may cause discrepancies in the foreign country(11). Kordtamini

(2011) reported that the self-esteem scores among boys were more than self-esteem scores among girls but there was no relationship between self-esteem and age groups and academic disciplines (engineering, arts, sciences and humanities)(17). While other studies such as Erol and Orth's study (2011) have been done on self-esteem increase coincided with puberty and young adults continue to increase at a slower pace(18). Self-efficacy has also significant difference in the academic disciplines. General self-efficacy scores in different stage of medical education (basic sciences, extern and Internee) had no significant difference but in different fields of medicine (24.5) in midwifery (26.3) and nursing (23.7) the results are as follows. Therefore in this study, general self-efficacy scores showed significant difference according to gender, age and discipline, so that it was higher among boys (25.9) and lower among girls (24.7); the results of Burgoon (2008) and Mamanyi (2010) are the same(4, 19). Ghaderi (2011) also reported that accounting students' sense of self-efficacy is

significantly more than management students(20). However, due to the different programming and learning environment, differences could be justified. Several studies also showed that factors such as concept, previous experiences, learning environment, mental competence and self-confidence can affect psychological competence development in medical education at internship stage(21-25). In the present study,

the mean scores of self-efficacy and self-esteem among students were moderate; therefore the more improvement of psychological factors the more achievement of the quality of education. Further studies on educational factors affecting self-esteem and self-efficacy, and advantages of improving the psychological factors in student learning outcomes, and determine the differences are required.

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