

### A Study of relationship between emotional intelligence and clinical performance in training field in Midwifery students of Nursing and Midwifery School

Mahin Tafazoli<sup>1</sup>, Sara Hosseini<sup>2\*</sup>, Hamidreza Aghamohammadian Sharbat<sup>3</sup>, Abbas Makarem<sup>4</sup>, Saeid Ebrahim Zadeh<sup>5</sup>

<sup>1</sup> Department of Midwifery, Faculty of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, Iran

<sup>2</sup> Department of Midwifery, Faculty of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, Iran.

<sup>3</sup> Department of Psychology, Faculty of Education & Psychology, Ferdowsi University of Mashhad, Mashhad, Iran

<sup>4</sup> Department of Medical Education, Faculty of Medicine, Mashhad University of Medical Science, Mashhad, Iran

<sup>5</sup> Department of biostatistics, Faculty of Health Sciences, Mashhad, Iran

\* Department of Midwifery Faculty of Nursing and Midwifery Ibn Sina Street Mashhad, 9137913199, IRAN  
Tel: 0511-8591511  
Fax: 0511-8597313  
Email: Sara.h2363@gmail.com  
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**Background:** In the last decade, researchers have found that, each person's success in education, either in school or in university, is not only related with his/her intelligence quotient, but today Emotional Intelligence is considered as another forecaster of people prosperities in their lives. The aim of this study is to determine the relationship between emotional intelligence and clinical performance of midwifery students in clinical unit.

**Methods:** This investigation is a descriptive- correlation study, which is carried out on 19 eighth-semester midwifery students. The evaluation of clinical performance in this study was performed in training unit in the hospital. Bar- on Emotional Intelligence Questionnaire was given to students at the end of the term in order to answer and then deliver it to researcher.

**Results:** There is a significant and direct relationship between total grade of students' emotional intelligence and clinical performance in training field ( $p=0.003$ ).

**Conclusion:** Students who have higher emotional intelligence could have better clinical performance and as a result improvement of academic performance. So, if they are trained in a manner to acquire higher level of EI we can hope for showing their maximum potential.

**Keywords:** Emotional Intelligence, Clinical Performance, Midwifery Students

### بررسی ارتباط هوش هیجانی با عملکرد بالینی دانشجویان مامایی در محیط کارآموزی

**زمینه و هدف:** در دهه اخیر پژوهشگران دریافته‌اند که موفقیت فرد در آموزش چه در مدرسه و چه در دانشگاه تنها با هوش شناختی وی ارتباط ندارد و اکنون هوش هیجانی به عنوان پیش‌بینی کننده دیگر موفقیت فرد در زندگی مورد توجه قرار گرفته است. لذا مطالعه ای با هدف تعیین ارتباط هوش هیجانی با عملکرد بالینی دانشجویان مامایی در محیط کارآموزی انجام شد.

**روش:** پژوهش حاضر مطالعه‌ای است توصیفی - همبستگی که بر روی ۱۹ دانشجوی ترم ۸ مامایی دانشکده پرستاری و مامایی مشهد که شرایط ورود به پژوهش را داشتند، انجام گرفت. عملکرد بالینی دانشجویان در هفته پایانی کارآموزی بارداری و زایمان در عرصه توسط پژوهشگر مورد ارزیابی قرار گرفت. پرسشنامه هوش هیجانی بار-آن در پایان کارآموزی، در اختیار دانشجویان قرار داده شد تا پاسخ داده و آن را به پژوهشگر تحویل دهند.

**یافته‌ها:** بین نمره‌ی کلی هوش هیجانی با عملکرد بالینی دانشجویان در محیط کارآموزی ( $D=0/003$ ) رابطه معنی‌دار و مستقیم وجود داشت.

**نتیجه‌گیری:** دانشجویان با هوش هیجانی بالا می‌توانند عملکرد بالینی و نهایتاً تحصیلی موفق تر و بهتری را برای خود رقم بزنند. بنابراین اگر دانشجویان بگونه‌ای آموزش داده شوند که هوش هیجانی بالایی را بدست آورند، می‌توان امید داشت که در کنار آموزش‌های شناختی، حداکثر استعدادهای خود را بروز دهند.

**واژه‌های کلیدی:** هوش هیجانی، عملکرد بالینی، دانشجویان مامایی

### دراسة العلاقة بين الذكاء العاطفی والاداء السریری لطلاب القبالة فی محیط التدريب السریری

**التمهيد:** فی العقود الأخيرة، وجد الباحثون أن نجاح الفرد فی كل من التعليم الجامعی والمدرسی لا يرتبط فقط بالذكاء، الإدراکی انما يعتمد أيضاً على الذكاء العاطفی باعتباره مؤثراً لنجاح الفرد فی الحياة . لذلك فقط افقوا دراسة لتسیر العلاقة بين الذكاء العاطفی و الأداء السریری لطلاب القبالة فی محیط التدريب السریری .

وقد اجريت هذه الدراسة التوصیفیة - الترابطة على ۱۹ طالب قدر وجدت فیهم الشروط لهذا البحث و اتوا ۸ فصول دراسية فی كلية التمريض و القبالة فی مشرد.

**الأسلوب :** فی الأسبوع الأخير تم تقييم اداء طلاب التمريض والقبالة السریری من قبل باحث متخصص.

فی نهاية التدریبات وضعت استمارة الذكاء العاطفی (الإنفعالی ) بین ایدی الطلاب لیتم الإجابة علیها و تسلیمها للباحث.

**النتائج :** وجدت بین الدرجات الكلية للذكاء العاطفی و الاداء السریری للطلبة فی محیط التدريب السریری ( $p=0.003$ ) علاقة ذات دلالات مبادرة.

**الإستنتاج :** الطلاب الذین یتملكون ذكاء عاطفی انفعالی عالی یتستطعون ممارسة ادائهم السریری و اداء التعليمی بشكل أفضل.

لذلك یمكن اذا تم تدريب الطلبة لیتسنى لهم الحصول على ذكاء عاطفی (انفعالی ) یؤمل أن یبرزوا مواهبهم إلى جانب التعليم الإدارکیة.

**الكلمات الرئيسية:** الذكاء العاطفی (انفعالی ) ، الاداء السریری ، طلاب القبالة.

### کلینکل تجربوں کے دوران مذ وائفری اور نرسنگ طلباء کی جذباتی ذہانت کا جائزہ

**بیک گراؤنڈ:** گذشتہ دہائی میں یہ انکشاف کیا گیا ہے کہ طالب علم کی کامیابی کا انحصار خواہ اسکول میں ہو یا یونیورسٹی میں صرف ذاتی ذہانت پر منحصر نہیں ہے بلکہ جذباتی ذہانت بھی اس کی کامیابی کی ایک اچھی علامت سمجھی جانے لگی ہے بنابرین کلینکل تجربوں کے دوران نرسنگ اور مذوائفری طلبہ کی جذباتی ذہانت کا جائزہ لینے کے لئے یہ تحقیق انجام دی گئی ہے۔

**روش :** یہ تحقیق مشہد کی نرسنگ اور مذ وائفری کالج کی انیس طالبات پر انجام دی گئی جو اپنی تعلیم کے آٹھویں ٹرم میں تھیں اور اس تحقیق میں شرکت کی صلاحیت رکھتی تھیں۔ طالبات نے حمل اور زچگی کے شعبے میں اپنی کارکردگی پیش کی جس کا جائزہ ایک استاد نے لیا۔ جذباتی ذہانت کے تعلق سے سوالنامہ طالبات کو دیا گیا اور انہوں نے اس کو پر کر کے اپنے استاد کے حوالے کیا۔

**نتائج:** اس تحقیق سے طالبات کی کلینکل کارکردگی اور ان کی جذباتی ذہانت میں مکمل ربط پایا گیا۔

**سفارشات:** طلباء اپنی جذباتی ذہانت سے استفادہ کرتے ہوئے کلینکل شعبے میں یا تعلیم شعبے میں بہتر کارکردگی کا مظاہرہ کرسکتے ہیں، بنابرین اگر طلباء کو ایسی روش سے تعلیم دی جائے جس میں وہ اپنی جذباتی ذہانت سے فائدہ اٹھاسکیں تو یہ امید کی جاسکتی ہے کہ وہ اپنی ذاتی ذہانت کے ساتھ ساتھ جذباتی ذہانت سے بھی فائدہ اٹھا کر بہتر اور اچھی کارکردگی پیش کرسکتے ہیں۔

**کلیدی الفاظ:** جذباتی ذہانت، مذ وائفری طالبات .

## INTRODUCTION

Educational status of any country depends on scientific knowledge and the ability and capabilities of students and is generally inclusive. Evaluating and assessing mental abilities using new scientific methods is one way of approaching this goal that can provide suitable areas for the flourishing of individuals' talents. Therefore, this important step should be considered as part of the main task of those involved (1).

Medical science workers, in health services, are responsible for the common health, and provide services that can lead to maintain the common health and well being. Toward playing this role, it is necessary, not only to have enough knowledge, but also professional skills (2).

Midwifery profession is involved in clinical judgments that have direct effect on mother and fetal health (3). However, one of the ways to provide good health services is to train skilled and competent midwives. Therefore, it is necessary for midwifery students who are ready to enter the health care systems soon, to be skilled at the highest level (4).

The finding of Nekoei and et al.'s research (1381) shows that, nursing and midwifery students, in their last year of education, that have passed most of their theoretical and practical courses, were not able to decide independently in clinical unit (5).

In the research of Hadizadeh and et al. (1385), the findings indicated that nursing and midwifery students that have been educated recently, did not have enough practical skills to utilize in clinical environments in spite of having good theoretical information, and were mostly weak at problem solving processes (6).

Nursing and midwifery students, experience a high level of stress in their workplace. This stress not only can cause educational downfall, but also may lead to anxiety for students. Nursing and midwifery students experience a high level of stress in clinical unit as well as educational environment (7).

Acquiring the necessary skills to encounter with clinical situations, and the way of managing that situation is essential. In addition, it is necessary to investigate the effective factors on students' performances and their dominance on certain skills (8).

In the last decade, researchers have found out that each person's success in education, either in school or in university, is not only related to his/her intelligence quotient, but today Emotional Intelligence is considered as another forecaster of people's prosperities in their lives (9-10).

Golman claimed that, 20% of individuals' success in the future is predicted with cognitive intelligent and 80% of it depends on their emotional intelligence (11). Gardner also believes that there is not a single integrated intelligence that can guarantee success in life, but there is a wide range of intelligence that caused a person's success in different areas. This problem exists in our educational system that emotional intelligence, the set of attributes that are important in determining the fate of individuals, is ignored; because the social and emotional skills and competencies are factors of determining and influencing academic success (12).

Emotional intelligence is the latest evolution in the relationship between thinking and emotion. This term was

introduced as a form of social intelligence for the first time by Salòvay and Mayer in 1990, as an ability to identify, assess, and control the emotions of oneself and others; acceptance of other people's perspectives, control of social relationships (11-13)

Bar-On expressed emotional intelligence as a set of skills, aptitudes, and non- cognitive abilities, which can improve the person's abilities in fighting against pressures, and environmental felicities. Therefore, emotional intelligence is one of the important factors in determination of the person's prosperity, and affects person's psychological health. Emotional intelligence and emotional skills growth during time, changing during the life, and can be improved by education and utilization of reformation programs, such as remedial techniques (13).

Several studies were carried out on first – year physiology students in one of the Canadian Universities, the results showed that emotional intelligence of students who achieved high scores in the final exam, were significantly higher than the comparison group that gained low scores (14).

On the other hand, in Joseph Talarico & et al.'s study, there was no relationship between emotional intelligence and students' performances, in clinical situations (15).

Briefly, it can be assume that deficiency in the parameters of emotional intelligence has an extremely important effect on students' performance. Additionally, in spite of emphasis on discussion of emotional intelligence in medical sciences, there are a few number of researches which have been done about factors which are related to success in medical sciences (16).

This research was carried out to realize the relationship between emotional intelligence and clinical performance of midwifery students in clinical unit to recognize the defects of the existing situation or educational problems. However, in the next educational planning, by reinforcing students' emotional intelligence, the background should be in a way that the midwifery students can determine the needs of the people referring them, provide their services to develop the health level in families and society by using these trainings in future as society – oriented midwives,.

## METHODS

This research is accomplished by descriptive- correlation method, with one group and two variables in 2010. After the approval of the research at the Research Committee on Education in Mashhad University of Medical Sciences, getting an introduction from nursing and midwifery school, and delivering to Ommul-Banin Hospital in Mashhad and getting the justification of the manager of that hospital, the coordination made with the manager of maternity ward, the researchers started sampling. In this research, because of the smallness of the population, the samples were adapted to the population, and sampling implemented according to capitation method. All the eighth semester midwifery students (n=19) were chosen as the samples.

The main criteria for entering the research included; passing all the theoretical and practical courses during bachelor period, being interested in participating in the

study. Students who came from another university as a guest and those who had clinical experience in the maternity ward were excluded from study.

The instruments of the research involved, students' demographics (personal traits) form, Bar – On's emotional intelligence questionnaire, students' performance assessment in maternity ward form.

In this research, Bar – On's emotional intelligence questionnaire, including 90 questions which were standardized in Iran, was utilized. In this test, in addition to the entire score, 5 ordinal criteria, and 15 sub – components of emotional intelligence were also evaluated. The reliability and consistency of the questionnaire were approved by Dehshiry (1386) and Zare (1384) (17-19). The reliability of the questionnaire measured by Alpha – Chronbach method, and 0.82 approved it.

Students' performance assessment in maternity ward form was designed by Mashhad nursing and midwifery school professors, to evaluate the clinical performance of students in the training field of gestation and labor course. This form involved communication skills, history taking, abdominal-vaginal-pelvic exam, control of first, second, third, and fourth stages of labor, delivery techniques, neonatal assessment, episiotomy, high risk pregnancy, theoretical knowledge, and appearance specifications. Scoring scale in this form is based on likert. Each student gets scores of 0%, 25%, 50%, 75% and 100% for extremely weak, weak, moderate, good, excellent performance, respectively. Through this form, each student earns a maximum of 40 score, which final score is obtained by dividing by 2.

Mashhad nursing and midwifery school professors confirmed the validity of the performance assessment form. However, the reliability of the assessment form was approved by the accordance between observers with  $r=0.89$ .

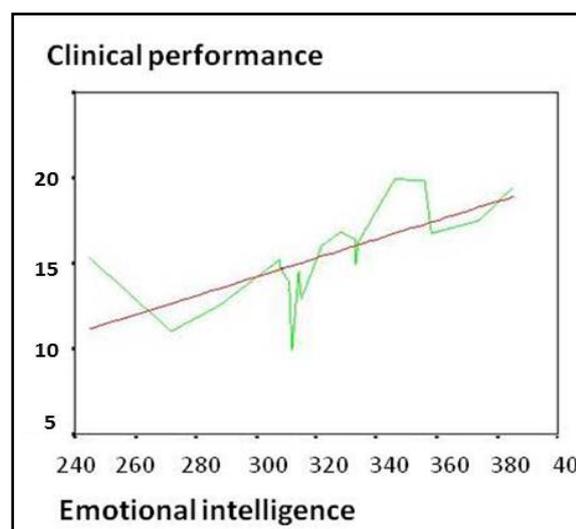
Researchers in the last week of training field of gestation and labor course, was present in the environment and assessed each student's clinical performance carefully. On the last day, the researcher and the trainer in maternity ward determined each student's score, by utilizing the performance assessment form.

To assess students' emotional intelligence, Bar – On's emotional intelligence questionnaire was delivered to the students on the last day of training field to answer the questions carefully, and then deliver it to researcher. After the addition and encoding of the data, SPSS v14 software utilized to analyze the data. We used Pearson correlation coefficient to examine the relationship between EI and student performance. All tests were 2- tailed and were set at  $P \leq 0.05$  to test statistical significance.

## RESULTS

The mean of the students' ages was 22.4 years old, and its standard deviation was 0.8 year. The mean score of midwifery student's emotional intelligence was 323.2 which is between minimum 245 to maximum 385.

The result of Pearson's correlation test indicated that the students who had higher emotional intelligence, performed better in the clinical unit than others. In other words, there is a direct correlation between these two variables



**Figure 1. The relation between emotional intelligence and students' clinical performance in the training field.**

( $r=0.639$ ,  $p=0.003$ , Figure 1). Among fifteen sub-components of EI, there were significant relationship between components: such as optimism, self-regard and emotional self-awareness with students' clinical performance in training field (table 1).

Amongst five total traits of emotional intelligence, there were significant and direct relationships between interpersonal trait and total mood with students' clinical performance (table 2).

In our research, there were no relationships between the total average and the score of theoretical course of gestation and labor with emotional intelligence ( $P=0.913$ ).

The results of this study indicated that there was no significant relationship between the birth degree on the rate of emotional intelligence in the subjects, ( $P=0.483$ ). In addition, there were no significant differences between the scores of emotional intelligence and the rate of the students' interests in education courses of the subjects ( $P=0.320$ ).

## DISCUSSION

It should be noted that a few number of articles in relation to clinical performance and emotional intelligence limited our discussion.

Based on the results of this research, there were direct relationships between the total score of emotional intelligence and students' clinical performance in the training field.

After surveying students' total performances, we could conclude that students who are able to accept their own positive and negative dimensions such as weaknesses and strengths (self – regard) and have ability to look at life from a more perspicuous side (optimism) eventually have better performance in the training field.

Knowledgeable people in the case of emotional intelligence introduced emotional self – awareness as the most evident and necessary component. They believed

**Table 1. relationship between subs – components of emotional intelligence with clinical performance of students in the training field.**

sub – components of EI	Clinical performance in training field	
	r	P Value
Problem Solving (PS)	0.612	0.050
Happiness (HP)	0.335	0.161
Independence (IN)	0.334	0.162
Stress Tolerance (ST)	0.381	0.431
Self-Actualization(SA)	0.431	0.066
Emotional self- awareness(ES)	0.522	0.022 *
Reality Testing (RT)	0.327	0.175
Interpersonal relationship(IR)	0.108	0.659
Optimism (OP)	0.762	0.000 *
Self-regard (SR)	0.610	0.006 *
Impulse Control (IC)	-0.50	0.838
Flexibility (FL)	0.150	0.540
Social Responsibility (SR)	0.362	0.128
Empathy(EM)	0.388	0.100
Assertiveness (As)	0.417	0.750

EI denotes emotional intelligence.

\* Significant

**Table 2: The relationship between five total traits of emotional intelligence and clinical performance of students.**

total characteristics of EI	Clinical performance in training field	
	r	P Value
inter – personal characteristics	0.341	0.154
intra – personal characteristics	0.544	0.016 *
fighting against pressure	0.456	0.050 *
Coping	0.193	0.429
total mood	0.701	0.001 *

EI denotes emotional intelligence.

\* Significant

that the people with higher level of self – awareness always have a higher self – esteem and self – confidence than others because they know their abilities (20). In this research as mentioned before there was a direct and significant difference between this component and students’ performances.

The research of Stratton et al. (2005) that was accomplished on the students of medicine showed that various components of emotional intelligence were effective on students’ clinical performances; so there was accordance between the results of these two researches (20).

But the research of Talarico and et al. (2006) was

accomplished on residents of the third year of medicine and its results indicated that there were no significant differences between the students’ emotional intelligences with their clinical performances; in this research only there was a negative significant relationship between decisiveness and the first part of performance assessment (necessary attributes), ( $r=0.040$ ,  $p<0.05$ ). However, there was no significant difference between other components of students’ emotional intelligence and 7 scores of students’ clinical performances ( $p=0.3$ , 15).

The cause of the difference between the results of the research of Talarico et al. with the results of this research is

the difference in the method of students' performance assessment. In this study, the trainers who were present in the hospital wards, accomplish assessment. Therefore, it is possible that the trainers' viewpoints, based on their previous recognition of the students have affected their judgements about students and their current performances may have had no effect on changing their judgements. In the other words, the "Halo Effect" that is observed in some of teachers' judgements may have affected trainers' assessments. Based on the results of our research, there were significant and direct differences between the three general characteristic traits which means interpersonal traits (0.016) and total mood (0.001) with students' clinical performance in the training field.

Therefore, the students who are better able to feel pleased with their lives, give pleasure to themselves and others, also be happy, and show good and comfortable sentiments in their workplace and in their pleasure time (happiness), and have ability to look at life from a more perspicuous side and protect a positive attitude even in encountering with unluckiness, and this shows better and more hope to life, also positive view to daily life (optimism), eventually can have successful clinical performance in training unit.

According to literature regarding stress tolerance and emotional intelligence, it was expected to find a significant relationship between performance and stress tolerance. It seems that in our study due to small sample size there was not any relation between these two components.

Samari and et al. (1386) reported a meaningful relationship between emotional intelligence and academic achievement. Amongst fifteen sub – components of emotional intelligence, there were significant relationships between components such as independence, emotional self-awareness, empathy, and self – regard and assertiveness with students' clinical performance in the training field (12). The relationship of these components was also found in our study.

The research of Namdar and et al. (2005) that was accomplished on the students of nursing showed that, there were no significant relationship between the scores of emotional intelligence and the rate of the students' interests in the subjects' education courses and birth

degree. So there was accordance between the results of these two researches (21).

One of the limitations of this research was the control of variables such as individual differences, memory, incentive, and fatigue that are effective in the case of students' performances because they were beyond researcher's responsibility.

In addition, the small number of the samples can be accounted for one of the limitations of this research. According to this fact, that gestation and labor course in training field were offered to fifth semester students for the first time (control of delivery is not the educational objectives of this term); 5th and 6th semester students are in the learning stage. Furthermore, there were not any January entrance students in the field of obstetrics, so examining on both 7th and 8th semester students was impossible at the same time. Therefore, there was not any possibility to increase the sample size.

Nursing and Midwifery Schools are responsible for the training of nurses and midwives who can provide clinical services based on updated scientific knowledge. According to the results of this research, about "the effects of students' emotional intelligences on their clinical performance", because emotional intelligence and emotional skills grow during time and can be improved by education and utilization of reformation programs such as remedial techniques (14) it is necessary to be lugged in routine medical education to develop and enhance the physicians, midwives, and nurses' performances, patients' health, and the most important matter to extol patients' results.

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