DOI: http://dx.doi.org/10.22122/ijbmc.v9i3.406 Published by Vesnu Publications

International Journal of Body, Mind and Culture

An Evaluation of the Impact of Teaching Emotional Intelligence Components on the Emotional Intelligence of Medical and Nursing Students

Moayad Aziz Abdulqadir[1], Laith Hamza Samein[2], Moaed Abdullah Jasim[3], Muneam Hussein Ali[4], Asmaa Hussein Abbas[5]

[1] Department of Anesthesia Techniques, AlNoor University College, Nineveh, Iraq
[2] The University of Mashreq, Baghdad, Iraq
[3] College of Education, Al-farahidi University, Baghdad, Iraq
[4] Al-Nisour University College, Baghdad, Iraq
[5] Al-Esraa University College, Baghdad, Iraq

Corresponding Author: Moayad Aziz Abdulqadir; *Department of Anesthesia Techniques, AlNoor University College, Iraq*
Email: moayad.aziz@alnoor.edu.iq

Quantitative Study

Abstract

Background: Emotional intelligence is a collection of emotions and skills that increase a person's capacity to cope with and exert control in adversity, and lead to optimal performance in various domains, including academic achievement. The present study was conducted with the aim to investigate the impact of teaching different components of emotional intelligence on the emotional intelligence of medical and nursing students of Basra University, Iraq.

Methods: The current quasi-experimental study was performed with a pretest-posttest design. With the help of a quota system, 247 students were selected at random and divided into two groups (intervention and control group). The data collection tools used included the Bar-On Emotional Intelligence Questionnaires in the academic year 2020-21. Each group took part in the posttest after 10 training sessions on emotional intelligence components. Analysis of covariance was used in SPSS software to examine the effect of group, discipline, and intervention on various components of emotional intelligence.

Results: The results indicated that teaching emotional intelligence components was effective on the emotional intelligence of medical and nursing students ($F = 99.422$; $P < 0.01$).

Conclusion: It can be concluded that emotional intelligence training is effective on the emotional intelligence and can be used as an effective method to improve students' psychological status.

Keywords: Emotional intelligence; Medical education; Nursing education

Citation: Abdulqadir MA, Samein LH, Jasim MA, Ali MH, Abbas AH. **An Evaluation of the Impact of Teaching Emotional Intelligence Components on the Emotional Intelligence of Medical and Nursing Students.** Int J Body Mind Culture 2022; 9(3): 207-17.

Received: 8 June 2022
Accepted: 27 June 2022

Introduction

Emotional intelligence consists of emotions and skills that increase a person's ability to cope with and maintain control in the face of problems and anxiety. It also promotes optimal self-awareness, social awareness, relationship management, and self-management performance. In other words, emotional intelligence is the ability to recognize, utilize, and control one's own and others' emotions (Karimi, Leggat, Bartram, Afshari, Sarkeshik, & Verulava, 2021). Emotional intelligence is one of the practical strategies for relationship management and enhancement of communication functions. This skill improves a person's problem-solving abilities and decreases the amount of conflict between intellectual and emotional perceptions (Humphrey, Curran, Morris, Farrell, & Woods, 2007). Learning effective strategies enables students to manage stress effectively and communicate in stressful situations. One of these methods is the development and application of emotional intelligence. Emotional intelligence is one of the essential self-regulatory learning strategies associated with empathic communication in students (Beauvais, Brady, O'Shea, & Griffin, 2011).

Emotional intelligence consists of the ability to comprehend oneself and others better. Mayer and Salvi (1997) stated that emotional intelligence has four parts: recognizing emotions, using emotions and feelings, understanding emotions, and controlling emotions. More specifically, emotional intelligence is defined as taking in information and managing your own and other people's emotions (McCallin & Bamford, 2007). Moreover, emotional intelligence refers to the capacity to recognize concepts, meanings, and emotions, and their interrelationships, and to reason, solve problems, and manage emotions (Amiri, Hassani-Abharian, & Seyrafi, 2021; Obeid et al., 2020). Using this skill and through self-awareness, students can manage their moods, improve them through self-management, comprehend their impact through empathy, and behave in a way that improves both their own and their patients' dispositions through relationship management. Improve. Numerous medical graduates lack the skills necessary for successful adaptation to the outside world (Cejudo Prado, 2016). Although cognitive abilities and fundamental skills are essential for physicians to begin their careers, emotional intelligence plays a crucial role in effective occupational performance, and educators must address this need. Managers of educational institutions should focus on the cultivation and education of this skill among their students (Suleman, Hussain, Syed, Parveen, Lodhi, & Mahmood, 2019).

Students are the human capital, productive force, and future builders of any society. In this regard, the major mission of universities is the comprehensive development and cultivation of scientists, thinkers, experts, and committed and educated individuals who can exhibit the required behavior and exert emotional control to achieve academic, professional, and social success (Sundararajan & Gopichandran, 2018). Today, researchers believe that cognitive intelligence accounts for no more than a quarter of wins, with the remainder depending on emotional intelligence and intelligence factors. It is believed that students with high emotional intelligence experience less academic failure and anxiety. In other words, educational status is affected by emotional and stress regulation. There is abundant evidence that emotional intelligence increases a person's future success and productivity (Patel, 2017; Jensen et al., 2008; Obeid et al., 2021). Numerous studies demonstrate a significant positive correlation between emotional intelligence and academic achievement (Nelis, Quoidbach, Mikolajczak, & Hansenne, 2009; Maalouf, Hallit, & Obeid, 2022).

In addition to knowledge and experience, if physicians possess sufficient emotional intelligence, they can achieve the organization's goals at a lower cost and higher quality by fostering healthy relationships with others and fostering a spirit of cooperation and work motivation (Basheer et al., 2022). Through healthy relationships, people feel valued, accepted, and trusted, and these skills promote mental health and increase their efficiency and usefulness. It should be an integral part of any health-related education due to the significance of emotional intelligence. For full implementation, students require role-playing, experimentation, and scientific opportunities. Learn creatively and creatively (Sharbafchizadeh & Sadeghi, 2022). It is necessary to meet patients' needs by teaching medical and nursing students to be sensitive to their patients' morals and spirits. Students of medicine and nursing should learn this skill for three reasons: they need to be able to provide suitable care services in crowded and chaotic places (Benson, Ploeg, & Brown, 2010). Traditional medical and nursing education programs must incorporate emotional intelligence requirements such as self-awareness, self-management, and social management to achieve these objectives (de Fabio, Palazzeschi, Bucci, Guazzini, Burgassi, & Pesce, 2018). Emotional intelligence is a trainable model that cultivates both intellectual and emotional processes. Emotional intelligence is essential for developing and integrating professional identity in diverse fields of health knowledge, including medicine, psychology, care, and nursing (Saddki, Sukerman, & Mohamad, 2017; Ghanbari, Asgari, & Seraj-Khorrami, 2022).

Emotional intelligence is a valuable managerial skill for patients, health care providers, and health organizations (Kafetsios & Zampetakis, 2008). Managers with emotional intelligence significantly impact how patients are cared for and how their problems are resolved, communicate more effectively with their employees, and manage the clinical environment more efficiently (Cherry, Fletcher, O'Sullivan, & Shaw, 2012). In addition, they are better at resolving conflicts, empathizing with patients and their companions, solving problems, playing a more constructive role in stressful environments, and achieving superior results. In other words, these managers in the treatment system can control their emotions and make sound decisions despite the complexities of the health system (El Othman, El Othman, Hallit, Obeid, & Hallit, 2020; Ebrahimi Barmi, Hosseini, Abdi, & Bakhshi, 2018; Bar-On, 2006).

One of the issues with most educational systems is their emphasis on academic ability while ignoring the significance of emotional intelligence in determining the fate of individuals in society. In comparison, influential members of the community have a high emotional Intelligence. The base of this research is the Bar-On model. This study was conducted with the aim to determine how teaching parts of emotional intelligence affects medical and nursing students' emotional intelligence. Medical and nursing students play an important leadership role in the health care system. Understanding the importance of emotional intelligence can help them achieve academic success and improve their performance in future management roles. Therefore, by elucidating the primary components of emotional intelligence in the two groups, we can attempt to plan and succeed optimally, eliminate any deficiencies, and provide students with complementary and compensatory opportunities. Thus, the present study was performed with the aim to investigate the impact of teaching different components of emotional intelligence on the emotional intelligence of medical and nursing students of Basra University, Iraq.

Methods

The present quasi-experimental study was performed with a pretest-posttest design

and intervention and control groups. The statistical population of the study included 381 medical and nursing students of Basra University in the academic year 2020-21. Therefore, 247 medical and nursing students were selected using a simple random sampling method. The data collection tool of this study was a questionnaire. The questionnaires used in this study included the standard Bar-On emotional intelligence test and a demographic information questionnaire. After selection, the participants were divided into two groups. The intervention group was given emotional intelligence-based strategies. The control group, on the other hand, did not receive any education. The posttest scores were compared between the two groups. In completing the questionnaires, participants did not need to provide their names and information without doing so. Ethical principles were taken into consideration for all study participants to ensure the confidentiality of their information.

The demographic information questionnaire included 20 questions regarding age, sex, marital status, grade, number of family members, multiple children, and the field of study, semester, father's generation, father's education, father's occupation, mother's age, mother's education, and mother's occupation. The study inclusion criteria included living with parents or family, interest in the field of study, interest in tackling difficult problems, interest in continuing education, and interest in research.

Mental intelligence patterns (such as that presented by Mayer and Salvi) or mental and personality patterns (such as Gelman and Bar-On patterns) are commonly used to assess emotional intelligence. The Bar-On pattern is the hybrid pattern, where emotional intelligence is defined as a combination of cognitive abilities and personality traits. Figure 1 presents the Bar-On Emotional Intelligence Questionnaire's five scales and fifteen subscales.

Each question on this survey is scored on a scale ranging from 5 (strongly agree) to 1 (strongly disagree). The mean of each component's questions is then calculated, yielding a score between 1 and 5, with 5 being the highest and 1 being the lowest. The Bar-On Emotional Intelligence Questionnaire, a 43-item instrument, was used to gauge the subject's level of emotional intelligence.

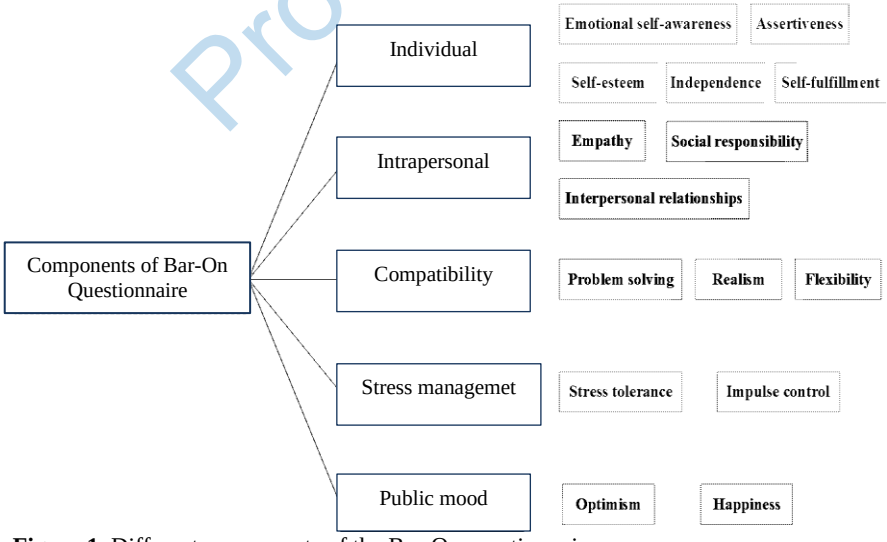

Figure 1. Different components of the Bar-On questionnaire

With a 95% confidence interval (CI) in this index's non-discrepancy index or the square root of the mean estimation error, the relative chi-square of 1.96 was used for confirmation factor analysis. In this study, the experimental group received ten sessions of emotional intelligence training over five weeks, while the control group received no special training. To estimate convergent validity, Bar-On (2004) asserts a 36% overlap between his questionnaire and other social and emotional intelligence tests, and he deems this overlap significant. According to Bar-On (2006), numerous international studies have been conducted to evaluate the validity and dependability of the Bar-On questionnaire. The Bar-On questionnaire evaluates the role of subjects in social interactions at school, university, and the workplace, as well as its role in physical and mental health, self-actualization, and relaxation. Based on the study by Dawda and Hart (2000), this questionnaire's predictive validity coefficient averaged 59%. This coefficient indicates that the questionnaire load can predict various aspects of human behavior. This questionnaire's Cronbach's alpha coefficient, Spearman-Brown Gain, and test-retest reliability were also reported as 93%, 90%, and 85%, respectively.

For ethical reasons, the students were given an informed consent form that told them how to fill out the questionnaire and emphasized that their participation in the project was voluntary, that they did not have to give their names, and that the information collected would be kept confidential. Descriptive statistical indices such as frequency, mean, and standard deviation were utilized to describe the data. The collected data were analyzed using variance and analysis of covariance in SPSS software (version 23; IBM Corp., Armonk, NY, USA).

Results

The demographic characteristics of the studied groups are presented in table 1. It is worth noting that 63% of the participants were girls, and 76% were single. According to table 1, there were no statistically significant differences in the demographic characteristics of the subjects between the control and intervention groups, indicating the homogeneity of the two groups.

Table 2 indicates that the training group's mean scores on the five emotional intelligence components increased significantly compared to before training. However, the values in the control group remained relatively stable and almost unchanged; consequently, the impact of learning is well-defined.

The percentage changes resulting from the intervention for each component of emotional intelligence are depicted in figure 2. The figure shows that the variable of individual skills has changed the most, while the variable of compatibility has changed the least.

The results of the covariance analysis for emotional intelligence components are presented in table 3.

Table 1. Demographic characteristics of participating students

Demographic characteristics	Intervention group (mean ± SD)	Control group (mean ± SD)	P-value
Age	22.47 ± 3.81	21.76 ± 2.49	0.59
Term	6.42 ± 2.14	6.86 ± 2.28	0.43
Father's age	55.73 ± 5.14	54.49 ± 6.19	0.19
Mother's age	52.24 ± 4.43	50.38 ± 6.86	0.81
Number of brothers	0.93 ± 0.62	0.86 ± 0.58	0.76
Number of sisters	0.79 ± 0.83	0.84 ± 0.46	0.52

SD: Standard deviation

Table 2. Mean and standard deviation for components of emotional intelligence

Emotional intelligence components	Group	Field	Pretest		Posttest	
			Mean	SD*	Mean	SD
Individual skills	Intervention	Medical	36.82	2.16	46.92	2.49
		Nursing	37.15	2.43	48.12	2.83
	Control	Medical	36.49	2.09	36.59	2.67
		Nursing	36.86	3.13	36.28	1.82
Interpersonal skills	Intervention	Medical	27.91	3.47	32.49	3.59
		Nursing	28.34	2.69	32.23	2.67
	Control	Medical	27.45	2.94	27.63	2.43
		Nursing	28.07	2.82	27.64	2.29
Compatibility	Intervention	Medical	23.19	1.59	26.43	2.41
		Nursing	24.37	1.87	26.58	2.16
	Control	Medical	23.26	2.09	23.54	1.86
		Nursing	23.41	1.83	22.94	1.72
Stress management	Intervention	Medical	22.19	1.52	25.48	3.18
		Nursing	24.35	2.16	26.54	3.04
	Control	Medical	21.83	2.43	21.96	2.68
		Nursing	24.61	2.17	24.82	2.73
Public mood	Intervention	Medical	22.39	2.19	25.64	3.67
		Nursing	23.81	2.83	26.79	2.62
	Control	Medical	22.64	2.49	22.45	2.19
		Nursing	24.15	1.94	23.76	2.38

SD: Standard deviation

The group variable became significant for all components of emotional intelligence (individual skills, interpersonal skills, compatibility, stress management, and public mood).

According to table 3, there is a statistically significant difference ($P < 0.01$) between the training group and control group in terms of the mean of all components of emotional intelligence, indicating that training was effective. In the analysis, the effect of discipline was not significant, so there was no significant difference between the medical and nursing groups in this regard. The significance of the pretest score used as a control in the model is notable.

Discussion

This present study was conducted with the aim to investigate the connection between emotional intelligence and communication and management abilities.

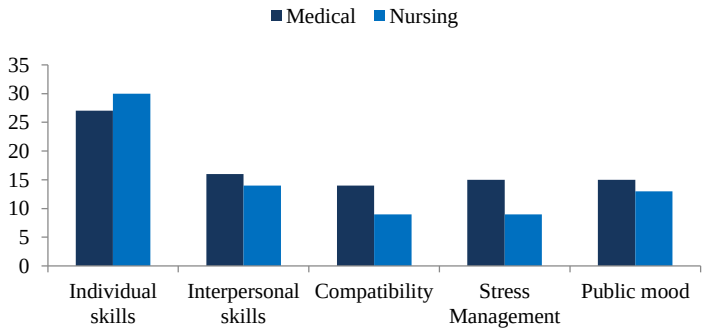

Figure 2. Percentage of changes in emotional intelligence components in the intervention group

Table 3. Results of analysis of covariance for emotional intelligence components

Emotional intelligence components	Variable	SS	MS	df	F-value	P-value
Individual skills	Group	1367.446	1367.446	1	288.154	< 0.01
	Field	6.328	6.328	1	1.149	0.38
	Pretest	629.866	629.866	1	172.541	< 0.01
	Error	843.949	4.741	178	-	-
Interpersonal skills	Group	143.252	143.252	1	76.338	< 0.01
	Field	3.411	3.411	1	1.631	0.76
	Pretest	1645.714	1645.714	1	468.172	< 0.01
	Error	578.143	3.25	178	-	-
Compatibility	Group	106.253	106.253	1	64.518	< 0.01
	Field	1.035	1.035	1	0.863	0.43
	Pretest	283.142	283.142	1	243.755	< 0.01
	Error	517.433	2.91	178	-	-
Stress management	Group	213.425	213.425	1	29.124	< 0.01
	Field	5.942	5.942	1	0.736	0.57
	Pretest	465.755	465.755	1	54.282	< 0.01
	Error	971.587	5.458	178	-	-
Public mood	Group	261.732	216.732	1	39.076	< 0.01
	Field	1.579	1.579	1	0.961	0.34
	Pretest	397.463	397.463	1	143.261	< 0.01
	Error	412.566	2.318	178	-	-

The results demonstrated that emotional intelligence derived from self-report is related to associated skills and subscales, and predicts these skills in a meaningful way. Analysis of covariance test results for the components of interpersonal skills, interpersonal skills, adjustment skills, general mood skills, and stress management skills revealed that the effect of the field of study was not significant for any of the components. Thus, the impact of learning emotional intelligence components on medical and nursing students was identical. While the results demonstrated the effect of training in the intervention group, the values of various emotional intelligence components have a significant relationship with the group. The results also showed that in the intervention group the individual skills component changed the most (27% for medical and 30% for nursing students). In contrast, the compatibility component changed the least (14% for medical and 9% for nursing). A pretest variable evaluation was used to assess the test's impact via analysis of covariance. The outcomes demonstrated that the test was significant for all aspects of emotional intelligence. Notably, at the beginning of the study, the participants' demographic characteristics were collected; it was determined that the intervention and control groups were appropriately divided and none of the groups' demographic characteristics were significant.

People with higher emotional intelligence are better able to understand interpersonal messages, listen better to others, understand how to communicate effectively with others, and are better able to regulate their emotions. Encoding, comprehending, and managing emotions is associated with social and emotional adaptation, which is consistent with the findings of previous researches (Vargas Valencia, Vega-Hernandez, Aguila Sanchez, Vazquez Espinoza, & Hilerio Lopez, 2022; Irfan, Saleem, Sethi, & Abdullah, 2019). People with high emotional intelligence have more positive social interactions, place a higher value on their relationships with friends and family, and are more successful in their interpersonal relationships (Wessel, Larin, Benson, Brown, Ploeg, Williams, 2008; Koczwara & Bullock, 2009; Chau et al., 2019).

Emotional intelligence is a collection of non-cognitive abilities, skills, and

competencies that influence a person's adaptability to environmental situations and pressures. Possessing a higher level of emotional intelligence will result in a greater capacity to effectively manage emotions and adapt to daily challenges, which will improve mental health. Emotional intelligence is also the ability to accurately recognize emotions, facilitate thought, and control these emotions to separate reason from human emotions. Given its significance, emotional intelligence should be an integral part of all health-related education. Many studies indicate that students' emotional intelligence is not at an acceptable standard and level because there is no written training in this regard; however, this skill can be improved. However, practice can improve emotional intelligence regardless of how high or low an individual's emotional intelligence is. Even in individuals who lack emotional intelligence, it is possible to cultivate high emotional intelligence. A portion of emotional intelligence is innate, while the remaining is acquired through human experience and can be enhanced through psychotherapy, critical thinking, awareness-raising, counseling, and coaching.

To achieve the stated training goals, such as improving one's behavior, learning new skills and abilities, and training highly-trained professionals, we can use emotional intelligence principles in medical and nursing training. As prevention is the most effective means of preventing emotional intelligence deficits, the development of this skill in vocational education students should be deliberated. Due to the extensive role of nurses in various medical centers and clinical services, physicians today possess, in addition to practical skills and knowledge, the ability to solve problems and make appropriate decisions, as well as the ability to communicate effectively and be aware of their values and the values of their patients. They require sound judgment in a variety of situations. Consequently, these competencies enhance the quality of nursing services, increase client satisfaction, and improve the health of patients.

People need communication and management skills to work more effectively in a complex health care system. They must work with many coworkers and adapt to the constant changes in the organization; on the other hand, they must care for patients with diverse cultures, races, and beliefs. Increasing the emotional intelligence of the treatment staff can therefore be very liberating and prevent fatigue and burnout among them. This will improve the job security of physicians, and patients will also benefit from the positive outcomes.

The current study's limitations include the self-reporting of emotional intelligence and communication skills and the study's use of a small sample from a university in Iraq. Administrators should give all students opportunities to grow and pay attention to their emotional and cognitive intelligence when planning education because emotional intelligence affects students' mental health and makes them better in many fields. Moreover, given the importance of emotional intelligence in managing health team members and patients, it is suggested that it be included in the curriculum of medical and nursing students.

Conclusion

The current study investigated the impact of teaching emotional intelligence components on the development of emotional intelligence among medical and nursing students at Basra University. The results indicated that the effect of the field of study on outcomes was not significant, whereas the impact of groups was highly significant. Therefore, the importance of training was made clear to the intervention

group. The analysis of the results demonstrated that the acquisition of emotional intelligence skills could enhance the profession by fundamentally altering physicians' attitudes toward patients, themselves, and their work as professional skills. Therefore, acquiring emotional intelligence skills requires physicians' professional activities with other employees in health systems and is a necessity of modern medicine. Managers' acquisition of emotional intelligence skills prevents the wasting of financial and human resources, and advances the profession.

Conflict of Interests

Authors have no conflict of interests.

Acknowledgments

None.

References

Amiri, M., Hassani-Abharian, P., & Seyrafi, M. R. (2021). Designing a community-based model of adjustment methods for positive prevention based on perceived deterioration and adherence treatment mediated by coping strategies in HIV-positive patients. *Int J Body Mind Culture*, *8*(3), 203-213.

Bar-On, R. (2004). The Bar-On Emotional Quotient Inventory (EQ-i): Rationale, description and summary of psychometric properties. In *Measuring emotional intelligence: Common ground and controversy* (pp. 115-145). Hauppauge, NY, US: Nova Science Publishers.

Bar-On, R. (2006). The Bar-On model of emotional-social intelligence (ESI). *Psicothema*, *18*(Suppl), 13-25.

Basheer, B., Alassaf, M., Alameer, A., Alghamdi, A., Alzaaqi, N., Alfaran, F. et al. (2022). Emotional intelligence and stress coping mechanisms among dental students in Riyadh, Saudi Arabia. *Medical Science*, *26*, 1-10.

Beauvais, A. M., Brady, N., O'Shea, E. R., & Griffin, M. T. (2011). Emotional intelligence and nursing performance among nursing students. *Nurse.Educ Today.*, *31*(4), 396-401. doi:S0260-6917(10)00146-2 [pii];10.1016/j.nedt.2010.07.013 [doi]. Retrieved from PM:20739106

Benson, G., Ploeg, J., & Brown, B. (2010). A cross-sectional study of emotional intelligence in baccalaureate nursing students. *Nurse.Educ Today.*, *30*(1), 49-53. doi:S0260-6917(09)00118-X [pii];10.1016/j.nedt.2009.06.006 [doi]. Retrieved from PM:19586691

Cejudo Prado, J. (2016). Relationship beween emotional intelligence and mental health in school counselors. *Electron J Res Educ Psychol*, *14*(1), 131-154.

Chau, S. W. H., Lewis, T., Ng, R., Chen, J. Y., Farrell, S. M., Molodynski, A. et al. (2019). Wellbeing and mental health amongst medical students from Hong Kong. *Int Rev.Psychiatry*, *31*(7-8), 626-629. doi:10.1080/09540261.2019.1679976 [doi]. Retrieved from PM:31687856

Cherry, M. G., Fletcher, I., O'Sullivan, H., & Shaw, N. (2012). What impact do structured educational sessions to increase emotional intelligence have on medical students? BEME Guide No. 17. *Med Teach.*, *34*(1), 11-19. doi:10.3109/0142159X.2011.614293 [doi]. Retrieved from PM:22250672

Dawda, D., & Hart, S. D. (2000). Assessing emotional intelligence: Reliability and validity of the Bar-On Emotional Quotient Inventory (EQ-i) in university students. *Pers Individ Differ*, *28*(4), 797-812.

de Fabio, A., Palazzeschi, L., Bucci, O., Guazzini, A., Burgassi, C., & Pesce, E. (2018). Personality traits and positive resources of workers for sustainable development: Is emotional intelligence a mediator for optimism and hope? *Sustainability*, *10*, 3422.

Ebrahimi Barmi, B., Hosseini, M., Abdi, K., & Bakhshi, E. (2018). The Relationship of

spiritual intelligence and rehabilitation staffs perceived stress in welfare organizations centers in Tehran and Shemiranat: 2017. *Archives of Rehabilitation, 19* (3), 228-237.

El Othman, R., El Othman, R., Hallit, R., Obeid, S., & Hallit, S. (2020). Personality traits, emotional intelligence and decision-making styles in Lebanese universities medical students. *BMC Psychology, 8*(1), 46.

Ghanbari, E., Asgari , P., & Seraj-Khorrami, N. (2022). Effectiveness of transcranial direct current stimulation on cravings in overweight individuals. *Int J Body Mind Culture, 9*(2), 140-148.

Humphrey, N., Curran, A., Morris, E., Farrell, P., & Woods, K. (2007). Emotional intelligence and education: A critical review. *Educ Psychol, 27*, 235-254.

Irfan, M., Saleem, U., Sethi, M. R., & Abdullah, A. S. (2019). Do we need to care: emotional intelligence and empathy of medical and dental students. *J Ayub.Med Coll.Abbottabad., 31*(1), 76-81. doi:5383/2078 [pii]. Retrieved from PM:30868789

Jensen, A. R., Wright, A. S., Lance, A. R., O'Brien, K. C., Pratt, C. D., Anastakis, D. J. et al. (2008). The emotional intelligence of surgical residents: a descriptive study. *Am.J Surg., 195*(1), 5-10. doi:S0002-9610(07)00826-4 [pii];10.1016/j.amjsurg.2007.08.049 [doi]. Retrieved from PM:18082535

Kafetsios, K., & Zampetakis, L. A. (2008). Emotional intelligence and job satisfaction: Testing the mediatory role of positive and negative affect at work. *Pers Individ Differ, 44*(3), 712-722.

Karimi, L., Leggat, S. G., Bartram, T., Afshari, L., Sarkeshik, S., & Verulava, T. (2021). Emotional intelligence: Predictor of employees' wellbeing, quality of patient care, and psychological empowerment. *BMC Psychol, 9*(1), 93.

Koczwara, A., & Bullock, T. (2009). What is emotional intelligence at work? *General Practice Update, 2*, 47-50.

Maalouf, E., Hallit, S., & Obeid, S. (2022). Personality traits and quality of life among Lebanese medical students: any mediating effect of emotional intelligence? A path analysis approach. *BMC Psychol, 10*(1), 28.

McCallin, A., & Bamford, A. (2007). Interdisciplinary teamwork: Is the influence of emotional intelligence fully appreciated? *J Nurs.Manag., 15*(4), 386-391. doi:JNM711 [pii];10.1111/j.1365-2834.2007.00711.x [doi]. Retrieved from PM:17456167

Nelis, D., Quoidbach, J., Mikolajczak, M. r., & Hansenne, M. (2009). Increasing emotional intelligence: (How) is it possible? *Pers Individ Differ, 47*(1), 36-41.

Obeid, S., Lahoud, N., Haddad, C., Sacre, H., Fares, K., Akel, M. et al. (2020). Factors associated with anxiety among the Lebanese population: The role of alexithymia, self-esteem, alcohol use disorders, emotional intelligence and stress and burnout. *Int J Psychiatry Clin.Pract., 24*(2), 151-162. doi:10.1080/13651501.2020.1723641 [doi]. Retrieved from PM:32031427

Obeid, S., Haddad, C., Fares, K., Malaeb, D., Sacre, H., Akel, M. et al. (2021). Correlates of emotional intelligence among Lebanese adults: the role of depression, anxiety, suicidal ideation, alcohol use disorder, alexithymia and work fatigue. *BMC Psychol, 9*(1), 18.

Patel, S. (2017). Emotional intelligence of college level students in relation to their gender. International Journal of Indian Psychology, 4(2), 122-128.

Saddki, N., Sukerman, N., & Mohamad, D. (2017). Association between emotional intelligence and perceived stress in undergraduate dental students. *Malays.J Med Sci, 24*(1), 59-68. doi:10.21315/mjms2017.24.1.7 [doi];07mjms24012017_oa5 [pii]. Retrieved from PM:28381929

Sharbafchizadeh, M., & Sadeghi, S. (2022). Sociological analysis of sexual justice in matrimonial relationships. *Int J Body Mind Culture, 8*(1), 14-30.

Suleman, Q., Hussain, I., Syed, M. A., Parveen, R., Lodhi, I. S., & Mahmood, Z. (2019). Association between emotional intelligence and academic success among undergraduates: A cross-sectional study in KUST, Pakistan. *PLoS.One., 14*(7), e0219468. doi:10.1371/journal.pone.0219468 [doi];PONE-D-19-03308 [pii]. Retrieved from PM:31291333

Sundararajan, S., & Gopichandran, V. (2018). Emotional intelligence among medical students: A mixed methods study from Chennai, India. *BMC Med Educ*, *18*(1), 97. doi:10.1186/s12909-018-1213-3 [doi];10.1186/s12909-018-1213-3 [pii]. Retrieved from PM:29728078

Vargas Valencia, A. R., Vega-Hernandez, M. C., Aguila Sanchez, J. C., Vazquez Espinoza, J. A., & Hilerio Lopez, A. G. (2022). Self-perceived emotional intelligence levels in nursing students in times of a pandemic: Multivariate representation. *Int J Environ.Res Public.Health*, *19*(3). doi:ijerph19031811 [pii];10.3390/ijerph19031811 [doi]. Retrieved from PM:35162836

Wessel, J., Larin, H., Benson, G., Brown, B., Ploeg, J., Williams, R. (2008). Emotional-social intelligence in health science students and its relation to leadership, caring and moral judgment. *The Internet Journal of Allied Health Sciences and Practice*, 6(1): 5.