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## Shaping Social Competence Among Medical Students in the Context of the Importance of Developing Emotional Intelligence in Education: A Literature Review and Author’s Questionnaire Study

KSZTAŁTOWANIE KOMPETENCJI SPOŁECZNYCH WŚRÓD STUDENTÓW KIERUNKÓW MEDYCZNYCH W KONTEKŚCIE ZNACZENIA ROZWIJANIA INTELIGENCJI EMOCJONALNEJ W EDUKACJI. PRZEGLĄD LITERATURY I AUTORSKIE BADANIE KWESTIONARIUSZOWE

### Summary

Emotional intelligence is considered one of the competencies necessary in professions designated as “social trust” professions. It promotes the effective implementation of therapeutic tasks by specialists, enables the conducting of culturally sensitive diagnostic interviews, allows for the maintenance of patient’s mental well-being, and strengthens their social potential. Many studies have found that emotional intelligence is of great importance for the professional development of medical students. Analysis of quantitative data collected at a university in Lublin, Poland, among medical students indicates an unsatisfactory level of emotional intelligence in respondents regardless of the year of study. The introduction of training programs and the development of didactic interventions focused on developing social competencies in higher education is necessary to promote patient-centered care in society.

**Keywords:** emotional intelligence; social competence training; higher education; patient-centered care

### Streszczenie

Inteligencja emocjonalna uznawana jest za jedną z kompetencji niezbędnych w zawodach tzw. zaufania społecznego. Sprzyja efektywnemu realizowaniu zadań terapeutycznych przez specjalistów, umożliwia prowadzenie wrażliwego kulturowo wywiadu diagnostycznego, pozwala zadbać o dobrostan psychiczny pacjentów, wzmacniając ich potencjał społeczny. W wielu badaniach stwier-

dzono istotne znaczenie inteligencji emocjonalnej dla rozwoju zawodowego studentów nauk medycznych. Analiza zebranych danych ilościowych przeprowadzona na jednej z lubelskich uczelni wśród studentów kierunku lekarskiego wskazuje na niezadowalający jej poziom u badanych bez względu na rok studiów. Wprowadzanie programów szkoleniowych i rozwijanie interwencji dydaktycznych skoncentrowanych na kształceniu kompetencji społecznych w edukacji wyższej jest niezbędne dla promowania opieki skoncentrowanej na pacjencie w społeczeństwie.

**Słowa kluczowe:** inteligencja emocjonalna; trening kompetencji społecznych; szkolnictwo wyższe; opieka skoncentrowana na pacjencie

## Introduction

The principles of patient-centered care are increasingly emphasized as an important part of healthcare policy and practice worldwide, including in Poland. Patient-centered care is a multidimensional concept that considers patients' information needs, promotes their dignity, and strengthens the professional-patient relationship in the treatment process. Developing care that is more focused on the patient as a person is impossible without shaping specific professional attitudes and behaviors in higher education. In the labor market, medical graduates are required to possess specific social competencies, and their formation is promoted by regulatory bodies such as the General Medical Council (Great Britain), the Association of American Medical Colleges (USA), and the Ministry of National Education (Poland). High patient satisfaction with the service received also depends on the quality of contact with medical personnel. Effective communication and professional attitude of healthcare workers create a safe working environment and ensure increased trust in the institution as a whole. Physicians differ in their abilities to understand the patient's perspective and provide patient-centered care. This state of affairs is partly explained by individual differences in skills and personal characteristics. Professionals have different interpersonal skills, including emotional intelligence (EI). High emotional intelligence in healthcare professionals is associated with higher levels of patient satisfaction. Patients feel better treated and understood by doctors and nurses who demonstrate empathy. Physicians with high emotional intelligence are better able to engage patients in the treatment process, which leads to improved outcomes. Healthcare professionals with high emotional intelligence are better prepared to cope with difficult situations and experience less burnout. Golnaz Sadri stated that EI is one of the main elements of effective leadership. The need for leadership based on emotional intelligence in healthcare professions is gaining importance worldwide. The significant importance of this construct for the enhanced professional functioning of physicians is indicated in

research.<sup>1</sup> Patients feel better treated and understood by doctors and nurses who demonstrate empathy.<sup>2</sup> Doctors with high EI can engage patients in treatment, which translates into improved outcomes.<sup>3</sup> Medical personnel with high emotional intelligence are better prepared to cope with difficult situations and experience less burnout.<sup>4</sup> Golnaz Sadri<sup>5</sup> stated that IE is one of the main elements of effective leadership. The need for emotionally intelligent leadership in health professions is gaining importance worldwide.<sup>6</sup> Research indicates the significant importance of this construct for better professional functioning of doctors.<sup>7</sup>

Emotional intelligence has been defined as “the ability to monitor one’s own and other’s feelings and emotions, to differentiate between them, and to use the information to guide one’s thinking and actions.”<sup>8</sup> In other words, it is

a cross-section of interrelated emotional and social competences, skills and facilitating factors that determine how effectively we understand and express ourselves, understand and relate to others, and cope with everyday demands.<sup>9</sup>

Initially, EI was treated as a type of social intelligence<sup>10</sup> dealing solely with the processing of emotions and knowledge about emotion-related information, which, however,

- 1 S.R. Bharamanaikar, S.V. Kadadi, *Effect of Doctor’s Emotional Intelligence on Patient Satisfaction*, “Abhigyan,” 35 (2017), no. 1, pp. 59-71, <https://doi.org/10.1177/0970238520170106>.
- 2 M. Hojat et al., *Physicians’ Empathy and Clinical Outcomes for Diabetic Patients*, “Academic Medicine: Journal of the Association of American Medical Colleges,” 86 (2011), no. 3, pp. 359-364, <https://doi.org/10.1097/acm.0b013e3182086fe1>.
- 3 E. Codier, D. Codier, *A Model for the Role of Emotional Intelligence in Patient Safety*, “Asia-Pacific Journal of Oncology Nursing,” 2 (2015), no. 2, pp. 112-117, <https://doi.org/10.4103/2347-5625.157594>.
- 4 G. Sharp, L. Bourke, M.J.F.X. Rickard, *Review of Emotional Intelligence in Health Care: An Introduction to Emotional Intelligence for Surgeons*, “ANZ Journal of Surgery,” 90 (2020), no. 4, pp. 433-440, <https://doi.org/10.1111/ans.15671>.
- 5 G. Sadri, *Emotional Intelligence and Leadership Development*, “Public Personnel Management,” 41 (2012), no. 3, pp. 535-548, <http://doi.org/10.1177/009102601204100308>.
- 6 E.M. Koutsoumpa, *Development of Emotional Intelligence and Leadership Aspects Applied in Health Professionals. A Scoping Review*, “Technium BioChemMed: Journal of Multidisciplinary Research, Biology, Chemistry and Medicine,” 6 (2023), pp. 22-36, <https://doi.org/10.47577/biochemmed.v6i.9533>.
- 7 J. Satterfield, S. Swenson, M. Rabow, *Emotional Intelligence in Internal Medicine Residents: Educational Implications for Clinical Performance and Burnout*, “Annals of Behavioral Science and Medical Education,” 14 (2009), no. 2, pp. 65-68; C. Dott et al., *Emotional Intelligence and Good Medical Practice: Is There a Relationship?* “Cureus,” 14 (2022), no. 3, e23126, <https://doi.org/10.7759/cureus.23126>.
- 8 P. Salovey, J.D. Mayer, *Emotional Intelligence*, “Imagination, Cognition, and Personality,” 9 (1990), pp. 185-211, <https://doi.org/10.2190/DUGG-P24E-52WK-6CDG>.
- 9 R. Bar-On, *The Bar-On Model of Emotional-Social Intelligence (ESI)*, 2005, [https://www.eiconsortium.org/reprints/bar-on\\_model\\_of\\_emotional-social\\_intelligence.htm](https://www.eiconsortium.org/reprints/bar-on_model_of_emotional-social_intelligence.htm) [access: 07.11.2024].
- 10 J.D. Mayer, P. Salovey, *What is Emotional Intelligence? in: Emotional Development and Emotional Intelligence: Educational Implications*, eds. P. Salovey, D.J. Sluyter, New York 1997, pp. 3-31.

suggested that it was a separate form of intelligence. Interestingly, the first mention of the term “emotional intelligence” is attributed to Michael Beldoch, a clinical professor of psychiatric psychology at Cornell University, who used the term in his 1964 research paper titled *Sensitivity to the Expression of Emotional Meaning in Three Modes of Communication*.<sup>11</sup> The earliest work to point out the importance of emotional intelligence is considered to be that of the German psychiatrist Hanscarl Leuner.<sup>12</sup> Peter Salovey and John D. Mayer were the first to define emotional intelligence, and Daniel Goleman (1995) popularized the term in his best-selling book *Emotional Intelligence: Why It Can Matter More Than IQ*.<sup>13</sup>

Emotional intelligence as a concept is difficult to define unequivocally due to different perspectives. Scientists have been interested in EI for many years. In early conceptualizations, it was treated as an ability, hence the use of the term “intelligence.” Some researchers have defined it as a type of social intelligence,<sup>14</sup> others have argued that it is a mental ability, like a cognitive ability, that reflects the efficiency of processing affective information,<sup>15</sup> still others described it as encompassing various competencies, both social and emotional.<sup>16</sup> Some refer to it as a personality trait, in their opinion, EI encompasses aspects of personality and disposition related to emotions.<sup>17</sup>

EI has been conceptualized within three models, which are defined as (1) ability-based,<sup>18</sup> (2) trait-based,<sup>19</sup> or (3) a combination of both, i.e., a mixed model.<sup>20</sup> The first model identifies four areas that compose EI: perceiving emotions, supporting emotional thinking, understanding emotions, and managing emotions. The second defines it as a “combination” of intrapersonal and interpersonal intelligence, coping with stress, adaptability, and general mood and optimism. In the third approach, EI comprises

- 11 A. Sandeep, *A Brief History of Emotional Intelligence*, 2020, <https://www.linkedin.com/pulse/brief-history-emotional-intelligence-dr-sandeep-atre> [access: 07.11.2024].
- 12 S.S. Naruka, *Emotional Intelligence: A Review of Literature, Models and Measures*, “Inspira-Journal of Commerce, Economics & Computer Science (JCECS),” 7 (2021), no. 3, pp. 43-48.
- 13 P. Salovey, J.D. Mayer, *Emotional Intelligence*, pp. 185-211; D. Goleman, *Emotional Intelligence: Why It Can Matter More Than IQ*, New York 1995.
- 14 R. Bar-On, *The Bar-On Emotional Quotient Inventory (EQ-i): Rationale, Description, and Summary of Psychometric Properties*, in: *The Measurement of Emotional Intelligence: Common Ground and Controversy*, ed. G. Geher, Hauppauge, NY 2004, pp. 115-145.
- 15 J.D. Mayer, D.R. Caruso, P. Salovey, *Emotional Intelligence Meets Traditional Standards for an Intelligence*, “Intelligence,” 27 (1999), no. 4, pp. 267-298.
- 16 R.E. Boyatzis, F. Sala, *Assessing Emotional Intelligence Competencies*, in: *The Measurement of Emotional Intelligence: Common Ground and Controversy*, ed. G. Geher, Hauppauge, NY 2004, pp. 147-180.
- 17 K.V. Petrides, R. Pita, F. Kokkinaki, *The Location of Trait Emotional Intelligence in Personality Factor Space*, “British Journal of Psychology,” 98 (2007), pp. 273-289, <https://doi.org/10.1348/000712606X120618>.
- 18 J.D. Mayer, D.R. Caruso, P. Salovey, *Emotional Intelligence*, pp. 267-298.
- 19 R. Bar-On, *Bar-On Emotional Quotient Inventory: Short Technical Manual*, Toronto 2002.
- 20 D. Goleman, *Emotional Intelligence*; idem, *Inteligencja emocjonalna*, tłum. A. Jankowski, Poznań 1997.

non-cognitive competencies, thanks to which a person can effectively cope with difficult situations, including character, temperament and personality, motivation, and social skills. Apart from the theoretical aspect, since around 2010, we have been observing an intensive “incorporation” of emotional intelligence into various fields of knowledge, including education, where the introduction of the concept of EI into academic curricula has gained popularity. In turn, 2020 and subsequent years “brought forth” research on the relationship between EI and mental health in various cultural contexts and environments, emphasizing its important role in many sectors of public life, including health care. Currently, the importance of using EI as a “tool” with pedagogical potential in medical education is emphasized. Emotional intelligence correlates with many important competencies that modern medical curricula try to include and promote.

## 1. Aim of the work

Measuring emotional intelligence is an important element in developing the idea of the significant importance of personal competencies in the course of education and improvement of the professional practice of medical students in Poland. Without their assessment, it would not be possible to promote the important role of professional personal competencies, which are of paramount importance for ensuring high-quality standards of health care in local communities, shaping professionalism, and improving patterns of social behavior based on mutual respect, support, and empathy.<sup>21</sup> This work aimed to determine the level of EI of medical students at different stages of education. The study sought to answer the following question: Does a student’s emotional intelligence change with their year of study?

## 2. Methods and procedure

The study was conducted among medical students in the 2023/2024 academic year. Participants were familiarized with the purpose and course of the study and voluntarily agreed to participate before responding. The procedure for collecting results was anonymous. The analysis of the collected results was performed using JASP software version 18.01.

A standardized questionnaire was used to measure emotional intelligence (INTE) and a self-designed questionnaire to collect sociodemographic data. The INTE questionnaire

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21 S. Arora et al., *Emotional Intelligence in Medicine: A Systematic Review Through the Context of the ACGME Competencies*, “Medical Education,” 44 (2010), no. 8, pp. 749-764, <https://doi.org/10.1111/j.1365-2923.2010.03709.x>.

contains 33 self-descriptive items and measures emotional intelligence understood as the ability to recognize, understand, and control one's own and other people's emotions, as well as the ability to effectively use emotions in directing one's own and others' actions. Some studies on the relationship between individual elements of EI indicate a relationship between abilities related to the perception and appreciation of emotions (one's own and others) and the ability to analyze and understand emotions, on the one hand, and the ability to control, regulate, and use emotions, on the other hand.

These two factors – action-related (INTE CZ 1) and cognitive (INTE CZ 2) – were revealed in the research on the Polish version of the INTE questionnaire (by Nicola S. Schutte et al.)<sup>22</sup> adapted by Aleksandra Jaworowska and Anna Matczak,<sup>23</sup> which the authors used in the presented work. The internal consistency of the tool is fully satisfactory. For the standardization samples, the determined Cronbach's alpha coefficients range from .83 to .87. INTE is one of the popular questionnaires for measuring EI, which has been used in research for many years. In this study, the general level of emotional intelligence (INTE\_WO) and two factors were determined for each respondent following the cited studies.

### 3. Results

Data were collected from 212 students in their first through fifth years of medical studies. The average age of the respondents was 21.91 years. The size of the groups by year of study did not show any statistically significant differences.

First, a correlation analysis of the collected data was performed. The analysis showed a statistically significant negative correlation between the level of IE and its factors and the year of study. However, the strength of these relationships was very low. It should therefore be concluded that there was no correlation between the level of IE and its factors and the year of study declared by the respondents. The results of the analysis are presented in Table 1.

Then, to compare the level of IE and its factors between students of different years of study, the Kruskal-Wallis test and post hoc tests with Tukey's correction were used. The analyses carried out did not show any significant differences in the level of IE and its factors in groups of students at different stages of education. It should therefore be assumed that the level of IE of the surveyed students does not differ statistically significantly

22 N.S. Schutte et al., *Development and Validation of a Measure of Emotional Intelligence*, "Personality and Individual Differences," 25 (1998), pp. 167-177, [https://doi.org/10.1016/S0191-8869\(98\)00001-4](https://doi.org/10.1016/S0191-8869(98)00001-4).

23 A. Jaworowska, A. Matczak, *Kwestionariusz Inteligencji Emocjonalnej INTE*, Warszawa 2001 (2nd ed., 2008).

Table 1. Results of the Pearson's  $r$  correlation for the selected data

		Year of studies	Age	INTE_CZ1	INTE_CZ2
Age	Pearson's $r$	.810			
	$p$ -value	<.001			
INTE_CZ1	Pearson's $r$	-.140	-.230		
	$p$ -value	.050	<.001		
INTE_CZ2	Pearson's $r$	-.130	-.210	.580	
	$p$ -value	.050	.010	<.001	
INTE_WO	Pearson's $r$	-.160	-.250	.910	.830
	$p$ -value	.020	<.001	<.001	<.001

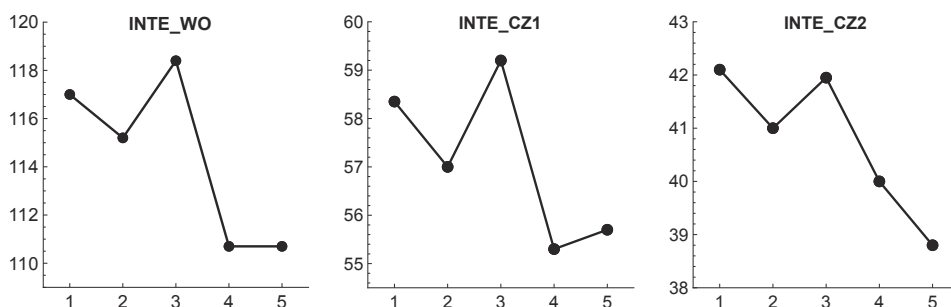


Figure 1. Level of EI and its factors in groups of medical students with different years of study on the x axis

according to the stage of education. The graphical presentation of the results of this comparison is presented in Figure 1.

#### 4. Discussion

Personal competencies are key to professional and social development. They are particularly important in healthcare, where the intensity of difficult and conflict-laden situations is constant and intense. Developing specific skills and abilities enables effective action and coping with stress, as well as effective communication and cooperation with others. Doctors who understand patients' emotional reactions in response to a diagnosis or advice on changing their current lifestyle are better able to understand why some methods of therapy meet with varying levels of acceptance by patients. They are also more open to conversation and listening to possible doubts and reservations, they express empathy, understanding, and respect for others, and they care about trust. This increases



the likelihood of greater commitment and maintenance of motivation for treatment in patients, especially those requiring constant care. Such an approach is necessary for the introduction of the so-called patient-centered approach in the Polish healthcare system.

One of the key skills “desirable” in the public health and medical sectors is emotional intelligence. Its importance can be considered in at least three areas: communication with patients, teamwork and professional efficiency, coping with stress, and “managing” emotions. Healthcare workers with high EI cope better with difficult emotions and demonstrate a variety of adequate coping strategies,<sup>24</sup> which enables them to make more rational and thoughtful decisions in critical situations. People with high EI can communicate more effectively with patients, understanding their emotions and needs, and showing empathy and respect.<sup>25</sup> Thanks to this, they are better able to explain complex medical information and build trust, which is crucial in the doctor-patient relationship. In turn, the ability to manage emotions and understand the emotions of other team members not only affects more effective communication and better cooperation<sup>26</sup> but also reduces professional burnout.<sup>27</sup> Meta-analyses combining the results of multiple studies (ability measures, self- and peer-rating measures, and mixed models) indicate that in the workplace, employees with higher emotional intelligence demonstrate better performance.<sup>28</sup>

The use of emotional intelligence in medical education, for example as a potential pedagogical tool enabling a new approach to improving both educational and clinical outcomes, requires its prior measurement in a specific environment, group, etc. The presented study showed no relationship between the level of EI and the stage of education. The average level of EI in different years of studies did not change despite students' contact with patients and the health care system. In Poland, studies using the INTE questionnaire were also conducted among nursing students at the Jagiellonian University in

24 R.T. Zumaeta et al., *Emotional Intelligence and Stress Coping Strategies in Health Care Workers*, “Revista de la Facultad de Medicina Humana,” 23 (2023), no. 3, pp. 46-56, <https://doi.org/10.25176/RFMH.v23i3.5659>.

25 M. Sommaruga et al., *Self-Perceived Provision of Patient Centered Care by Healthcare Professionals: The Role of Emotional Intelligence and General Self-Efficacy*, “Patient Education and Counseling,” 100 (2017), no. 5, pp. 974-980, <https://doi.org/10.1016/j.pec.2016.12.002>; S. Nightingale et al., *The Impact of Emotional Intelligence in Health Care Professionals on Caring Behaviour Towards Patients in Clinical and Long-Term Care Settings: Findings from an Integrative Review*, “International Journal of Nursing Studies,” 80 (2018), pp. 106-117, <https://doi.org/10.1016/j.ijnurstu.2018.01.006>.

26 E.S. Koman, S.B. Wolff, *Emotional Intelligence Competencies in the Team and Team Leader: A Multi-Level Examination of the Impact of Emotional Intelligence on Team Performance*, “Journal of Management Development,” 27 (2008), no. 1, pp. 55-75, <https://doi.org/10.1108/02621710810840767>.

27 M. Sanchez-Gomez, E. Bresó, *In Pursuit of Work Performance: Testing the Contribution of Emotional Intelligence and Burnout*, “International Journal of Environmental Research and Public Health,” 17 (2020), no. 15, 5373, <https://doi.org/10.3390/ijerph17155373>.

28 E.H. O'Boyle Jr. et al., *The Relation Between Emotional Intelligence and Job Performance: A Meta-Analysis*, “Journal of Organizational Behavior,” 32 (2011), no. 5, pp. 788-818.



Kraków.<sup>29</sup> They noted that first-year students achieved average results in the measurement of emotional intelligence, while fifth-year students achieved low results. Moreover, students starting their studies declared a higher level of competencies that constitute emotional intelligence than students completing their studies. Interestingly, the results of the analyses conducted so far suggest that the emotional intelligence of medical students may change depending on their level of education. In a longitudinal study, Kim Foster and colleagues found that the total scores of nursing students regarding emotional intelligence in the study group were statistically significantly higher at the end of the academic year than at the beginning.<sup>30</sup> In addition, a cross-sectional study conducted in Canada showed a significant difference in total EI scores between nursing students in their first and fourth years of study, in favor of the latter.<sup>31</sup>

Emotional intelligence in medical students is an important area of research due to the specifics of their future work. It is assumed that medical students with higher levels of EI will cope better with interactions with patients and in teamwork. However, the assessment of people applying to medical schools before they start can be extremely problematic. Medical schools have to “face” a large number of candidates with quite uniform, often high academic achievements. In addition, it is expected that decisions on admission to medical studies will be based on maximally transparent and objective criteria, which can be legally defended if necessary. The assessment of non-cognitive criteria such as emotional intelligence is much more complex and complicated. According to Eric Siu and Harold I. Reiter, assessment tools whose predictive value has not been demonstrated include “personal interviews, personal statements, reference letters, personality tests, emotional intelligence, and situational judgment tests.”<sup>32</sup> Interesting reports concern cognitive methods of measuring emotional intelligence based on inspection time tasks.<sup>33</sup> This cognitive type of tasks measures the speed of information processing, e.g., on tasks that require recognizing emotions on faces. However, it should be remembered that this type of measurement, although accurate and reliable, is selective, i.e., it does not capture

29 A. Malinka, *Zmiany kompetencji emocjonalnych w toku nauki na studiach wyższych u studentów kierunku pielęgniarstwo*, 2020, <https://ruj.uj.edu.pl/entities/publication/694b083d-9133-470b-9732-9877900332ec> [access: 07.11.2024].

30 K. Foster et al., *Emotional Intelligence Increases over Time: A Longitudinal Study of Australian Pre-registration Nursing Students*, “Nurse Education Today,” 55 (2017), pp. 65-70, <https://doi.org/10.1016/j.nedt.2017.05.008>.

31 G. Benson, J. Ploeg, B. Brown, *A Cross-Sectional Study of Emotional Intelligence in Baccalaureate Nursing Students*, “Nurse Education Today,” 30 (2010), no. 1, pp. 49-53, <https://doi.org/10.1016/j.nedt.2009.06.006>.

32 E. Siu, H.I. Reiter, *Overview: What's Worked and What Hasn't as a Guide Towards Predictive Admissions Tool Development*, “Advances in Health Sciences Education: Theory and Practice,” 14 (2009), no. 5, pp. 759-775, <https://doi.org/10.1007/s10459-009-9160-8>.

33 E.J. Austin, *Emotional Intelligence and Emotional Information Processing*, “Personality and Individual Differences,” 39 (2005), no. 2, pp. 403-414, <https://doi.org/10.1016/j.paid.2005.01.017>.

most of the aspects that are essential to IE.<sup>34</sup> So-called multiple mini-interviews, used to assess non-cognitive aspects of candidates' functioning in the recruitment process, are promising.<sup>35</sup> They consist of short, individualized interviews with at least several different interviewees. Their organization is similar to the course of objective, structured, OSCE-type clinical examinations. In summary, unlike in the United States and some European countries, in Poland there is still a lack of discussion on formalized methods of selecting students in terms of social and personal skills to increase the selection of those who in the future will become practitioners, able to provide patients with high-quality, patient-centered care.

The development by scientists and the implementation by recruitment committees of objective selection methods aimed at predicting the future professional achievements of clinicians is a difficult task. One could "venture to say" that the issue of emotional intelligence training in education poses significantly fewer challenges to higher education worldwide. Emotional intelligence in education and its application in social competence training has also been an intensively developing and well-developed area of both research and practice for years. At the theoretical level, the debate on the extent to which EI can be developed or learned has been ongoing for some time. In the literature, emotional intelligence has been described in various ways: as a skill, a trait, or a combination of both. P. Salovey and J.D. Mayer, as well as D. Goleman, suggest that emotional competencies are skills and abilities that can be developed.<sup>36</sup> However, from the perspective of personality research, it is indicated that personality is not very susceptible to change.<sup>37</sup> Some authors have begun to postulate the study of the "trainability" of EI.<sup>38</sup> Despite the ambiguity of the construct itself, many scientists assume that emotional intelligence is not unchanging but is shaped throughout life.<sup>39</sup> According to N.S. Schutte, it is possible to improve EI-related skills through intensive training.<sup>40</sup> Also other studies demonstrate

34 M. Śmieja, *W związku z inteligencją emocjonalną. Rola inteligencji emocjonalnej w relacjach społecznych i związkach intymnych*, Kraków 2018.

35 J.-F. Lemay et al., *Assessment of Non-cognitive Traits Through the Admissions Multiple Mini-Interview*, "Medical Education," 41 (2007), no. 6, pp. 573-579, <https://doi.org/10.1111/j.1365-2923.2007.02767.x>.

36 P. Salovey, J.D. Mayer, *Emotional Intelligence*, pp. 185-211; D. Goleman, *An EI-Based Theory of Performance*, in: *The Emotionally Intelligent Workplace*, eds. C. Cherniss, D. Goleman, San Francisco 2001, pp. 27-44.

37 R.R. McCrae, *Emotional Intelligence from the Perspective of the Five-Factor Model of Personality*, in: *The Handbook of Emotional Intelligence*, eds. R. Bar-On, J.D.A. Parker, J.D. Mayer, San Francisco 2000, pp. 263-276.

38 J.M. Conte, *A Review and Critique of Emotional Intelligence Measures*, "Journal of Organizational Behaviour," 26 (2005), pp. 433-440, <https://doi.org/10.1002/job.319>.

39 A. Matczak, *Temperament a inteligencja emocjonalna*, "Psychologia, Etologia, Genetyka," 10 (2004), pp. 59-82; M. Zeidner et al., *Development of Emotional Intelligence: Towards a Multi-Level Investment Model*, "Human Development," 46 (2003), pp. 69-96, <https://doi.org/10.1159/000068580>.

40 N.S. Schutte et al., *Emotional Intelligence and Interpersonal Relations*, "Journal of Social Psychology," 141 (2001), no. 4, pp. 523-536, <https://doi.org/10.1080/00224540109600569>.

that emotionally intelligent skills and knowledge can be enhanced.<sup>41</sup> Researchers from the University of Kentucky in the United States conducted a so-called systematic review of educational interventions aimed at improving EI in nursing and medical students, which included publications issued between January 2010 and February 2022.<sup>42</sup> Twelve studies were included in the final analysis, and it was found that almost all of the interventions (group-based educational activities conducted for at least eight weeks) showed positive effects. The greatest improvement was observed in interventions addressing issues related to self-awareness, problem-solving, empathy, coping with stress, and managing emotions. Victoria Mattingly and Kurt Kraiger identified 58 studies on emotional intelligence training that used a “before-after” or “intervention-control group” approach.<sup>43</sup> As a result of the meta-analysis, a moderate but positive effect of training on participants’ emotional intelligence was found.

There has been a growing need for education that addresses the emotional and social development of students, from primary school to higher education. Promoting social and emotional competencies through so-called social and emotional learning (SEL) is a systematic approach that has been developing in the United States and Europe for several years. The basis for this type of education is a deeper perspective, according to which the skills of understanding and managing emotions, achieving positive goals, showing concern and care for others, establishing and maintaining positive relationships, and making responsible decisions are important for achieving success in school and life.<sup>44</sup>

Social-emotional learning (SEL) includes a methodology that supports not only positive social behaviors in pupils and students (e.g., strengthening anti-drug attitudes and related pro-health behaviors) but also shaping the understanding of one’s emotions, expressing them adequately, and showing empathy to others. Learned and mature behaviors are then used in building positive relationships in the group and making responsible decisions.<sup>45</sup> The development of SEL programs that focus on skills such as emotional

41 K.B.T. Chang, *Can We Improve Emotional Intelligence? Addressing the Positive Psychology Goal of Enhancing Strengths*, in: *Emotional Intelligence: Perspectives on Educational and Positive Psychology*, eds. J.C. Cassady, M.A. Eissa, New York 2008, pp. 25-45.

42 M. Taylor, J. Hoch, K. Porter, *Educational Interventions to Improve Emotional Intelligence in Nursing and Medical Students: A Systematic Review*, “Journal of Nursing Education and Practice,” 13 (2023), no. 1, pp. 19-30, <https://doi.org/10.5430/jnep.v13n1p19>.

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awareness and regulation is a good example of promoting the development of social competencies in society, and it also reflects the responsibility of educators to provide an educational environment that is conducive to meeting these needs. Given the discussion about the complexity of the construct of EI and the various methodological concepts and considerations regarding measurement, another issue that requires further research concerns what methods of teaching and developing emotional intelligence in schools are most effective and to what extent. Research on the development of interpersonal skills in the field of emotional intelligence in students, depending on the methods used, is being conducted more and more intensively abroad, e.g., by Wenjiao Yang and colleagues.<sup>46</sup> Perhaps further analysis and development of methods in this area will provide objective guidelines for practical use in the future.

Since IE is considered a skill that university education should develop to increase the professional potential of future graduates, proposals to include IE skills in university curricula appeared several years ago.<sup>47</sup> The issue of training programs and didactic interventions focused on developing social competencies in medical students is much less popular in Poland. Meanwhile, thorough education in this area serves to “protect the interests” of both students and patients. Medical education in our country should be more focused on developing social and emotional skills (e.g., SEL programs), which are key to ensuring fully professional, person-centered healthcare.

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