

Development of Emotional Intelligence and Leadership aspects applied in Health Professionals. A Scoping Review

Eftichia Maria Koutsoumpa^{1*}

¹University of Patras, Greece

*Corresponding author: E-mail: emkoutsoumpa@gmail.com

Abstract

The healthcare industry, known for its demanding work environment and extensive interpersonal engagements, requires individuals to possess technical proficiency, deep emotional intelligence (EI), and practical leadership abilities. This paper examines the significance and progression of emotional intelligence concerning leadership qualities, specifically focusing on health professionals. Recent research findings indicate that a growing body of data supports that health professionals with more significant emotional intelligence (EI) demonstrate increased patient care, more vital collaboration within teams, and more effective decision-making. The patient-centric approach in the medical industry is closely associated with key elements of Emotional Intelligence (EI), including empathy and self-awareness. These components are essential in fostering effective patient care and should be prioritized in healthcare professionals' skill development. In addition, healthcare executives with well-developed emotional intelligence (EI) can manage and traverse the complexities of team interactions effectively, promoting optimal performance even in high-pressure situations. Contemporary instructional approaches, such as simulation training, reflective practice, and mentorship programs, exhibit the potential to foster these characteristics. In conclusion, the cultivation of emotional intelligence in conjunction with leadership abilities among healthcare professionals enhances the standard of patient care and reinforces the resilience and effectiveness of healthcare teams. Incorporating emotional intelligence (EI) and leadership development into medical training and ongoing professional education is increasingly recognized as a crucial approach for advancing healthcare in the future.

Keywords: Emotional Intelligence, Leadership Aspects, Health Professionals, Healthcare, Decision-Making

1. Introduction

Practitioners traverse a milieu characterized by intricate clinical situations, sensitive patient engagements, and consequential determinations within the ever evolving and frequently demanding healthcare domain. The foundation of medical practice is built upon clinical knowledge and technological experience. However, there is an increasing acknowledgment of the significant contributions made by emotional intelligence (EI) and leadership skills. The importance of soft skills, which the focus on clinical expertise has traditionally overlooked, is now recognized as crucial for improving patient outcomes, optimizing team interactions, and enhancing the overall effectiveness of healthcare delivery. Emotional intelligence, which encompasses the capacity to identify, comprehend, regulate, and employ emotions logically, holds significant relevance in the routine responsibilities

undertaken by healthcare practitioners. Emotional intelligence (EI) is crucial in various aspects of professional practice, such as conveying challenging diagnoses, working with interdisciplinary teams, and making prompt and significant judgments (Gkintoni & Dimakos, 2022). In addition, the concept of leadership, formerly associated primarily with senior healthcare executives, has recently gained recognition as a quality that all health professionals are capable of and should possess. This discussion explores how emotional intelligence and leadership qualities are exhibited in the healthcare environment, their significance, and the methods to cultivate them to improve healthcare personnel and patients. Leadership can be defined as the systematic exertion of influence over a structured collective to enhance their problem-solving capabilities or facilitate attaining predetermined objectives (Gkintoni et al., 2023d). A leader's success is contingent upon possessing a clear and unique vision, being driven and motivated, demonstrating creativity, exhibiting a solid affinity for interpersonal relationships, and effectively engaging in collaborative endeavors. Enhance civic engagement, prioritize effectiveness and results, and integrate the delivery of healthcare services. Effective leadership is facilitated by various factors, including the personality traits of the leader, the profiles of colleagues, team members, and subordinates, the underlying team culture, the value system, cultural capital, the external environment, environmental hazards, and opportunities, as well as the sources of power.

The attainment of effective management and leadership necessitates possessing a skill set called emotional intelligence. This concept encompasses a range of competencies, including the capacity to motivate oneself toward accomplishing objectives and to exhibit resilience when confronted with obstacles. The capacity to regulate impulses, manage one's emotional state to mitigate the impact of fear and anxiety on logical reasoning, and demonstrate empathy and optimism. To comprehend their own and other's emotional states, effectively respond to requisite adjustments, and navigate challenging circumstances, individuals occupying leadership roles within health and welfare organizations necessitate a combination of leadership aptitude and emotional intelligence. Numerous leadership theories exert a substantial impact on both work performance and employee well-being. A plethora of empirical research on emotional intelligence has consistently demonstrated that individuals with superior talents in recognizing the emotions of others tend to exhibit enhanced performance in both social and professional contexts (Gkintoni et al., 2023a). These findings provide substantial support for the proposition that emotional and psychological competencies have a favorable impact on organizational effectiveness.

Moreover, it is widely acknowledged that friendliness and good emotional communication are crucial elements that contribute to a leader's overall effectiveness (Gkintoni et al., 2016). It is essential to acknowledge that emotional intelligence has a significant role in interpersonal interactions and workforce performance. The primary objective of this analysis is to investigate the correlation between leadership and emotional intelligence among health professionals employed in health organizations, focusing on assessing the potential consequences for both individuals and the business as a whole (Halkiopoulou et al., 2023a; Halkiopoulou et al., 2023b; Halkiopoulou et al., 2023c). The primary objective of this study is to examine the correlation between emotional intelligence and leadership. According to scholarly sources, both notions are widely recognized as essential for establishing, functioning, and managing businesses and organizations.

2. Literature Review

Emotions are recognized as one of the factors that most influence people's work lives in a growing body of global research that explicitly examines their functioning. According to Bastian, Burns, and

Nettelbeck (2005), emotional intelligence is a determining factor for both mental health and success in life. It has been linked to both mental health and success in life, either as a personality trait or as a person's ability to recognize and manage emotions. Mayer and Salovey's (1997) ability model and mixed models are the two main conceptual frameworks for emotional intelligence. The first highlights how cognitive and emotional skills interact, emphasizing how emotions influence a person's judgment and memory. Based on socioemotional characteristics, the second model emphasizes individual variability in how emotions are organized and expressed and related social skills (Kafetsios & Petratou, 2005).

Emotional intelligence, in theory, refers to how a person observes, evaluates, and uses their emotions in interpersonal and intrapersonal contexts. According to a review of the relevant literature, there is no universally recognized definition. This definition is influenced by each scientist's conceptual approach to explanation and the concept's scope. We will cite in full the definitions offered by Peter Salovey and John Mayer (1995), Reuven Bar-On (1997), and Daniel Goleman (1998). The ability to understand one's and those of others is referred to as emotional intelligence by Mayer and Salovey (1995). The ability to identify, evaluate, transfer, and control emotions is a second definition of emotional intelligence provided by Mayer and Salovey (1997). How well we understand ourselves and others, communicate, attend to their needs, and interact is determined by our emotional intelligence, a combination of interrelated emotional and social talents, skills, and characteristics. The former term was defined by Bar-On (1997). The ability to understand one's own and other people's emotions, be guided by them, and skillfully regulate one's emotions and interactions with others is referred to as emotional intelligence, according to Goleman (1998).

Mayer and Salovey's competency model, Bar-On's (2006) personality theory-based model, and Goleman's (2001) workplace-centered model of emotional competence are the three most popular theories, according to what they emphasize (Fernandez-Berrocal & Extremera, 2006). The cognitive-emotional skills paradigm, also known as the skills model, views emotional intelligence as a collection of skills closely related to the cognitive system. The concepts proposed to characterize the construct of emotional intelligence are divided by Petridis and Furnham (2000) into two main categories: the skill model and mixed models. Mayer and Salovey's (1997) model, presented in this section, states that emotional intelligence includes monitoring and recognizing emotions, integrating emotions into thinking, and understanding and controlling one's and others' emotions.

The complex conceptual framework known as the mixed model coexists with emotional self-awareness, interpersonal and intrapersonal skills, self-evaluation and self-regulatory abilities, and social skills. These models were created by Bar-On (1997) and Goleman (1998), respectively. According to Petridis and Furnham (2000), emotional intelligence is a dispositional trait influenced by many variables. Therefore, they offered an alternative approach to its evaluation. To achieve this, they combined every conceptual strategy already in use.

Based on their theoretical model, Mayer, Caruso, and Salovey have developed two scales to test cognitive and emotional abilities to assess emotional intelligence objectively. The Multifactor Emotional Intelligence Scale (MEIS-Mayer et al., 1999) was the first instrument to measure emotional intelligence. The test uses portraits, artwork, and landscapes as stimuli to measure the accuracy with which respondents can identify emotions. The Mayer Salovey Caruso emotional intelligence test, which scores the four components of emotional intelligence according to its theoretical framework, was published in 2002 after several tests to perfect the scale. Four scales are used to assess each dimension in the MSCEIT. The first assesses the individual's ability to recognize emotions. The individual is encouraged to communicate the feelings and ideas evoked by these landscapes, portraits, and other

subjects. The second examines how well the individual can analyze their emotions and how they affect their cognitive functions, and the third examines how the individual evaluates and categorizes their emotions. According to Mayer, Salovey, and Caruso (2002, 2004), the fourth scale assesses the individual's ability to manage emotions effectively. According to Mayer et al. (2003), the final score is determined by assessing the assessee's reactions to situations involving or requiring emotions.

The Emotional Intelligence Questionnaire (TEIQue- Petrides, 2009) is a scientific tool for measuring emotional intelligence as a personality trait. There are more than 20 languages in which the tool is offered. The 153 questions are organized into a total of 15 subscales. Well-being, self-control, emotionality, and sociability are the four characteristics that emerge from the 15 subscales (Petridis, 2009). According to the theory, these are the core elements of emotional intelligence (Costa et al., 2014). Some of the survey questions received low scores on the survey's seven-point Likert scale. The individual can use this questionnaire to identify their strengths and areas that need improvement based on the test criteria. A 30-question version of this assessment tool is available (Cooper & Petridis, 2010).

Other lesser-known assessments of emotional intelligence as a personality trait include the TEIQue-360° (Petridis, 2009), TEIQue-AF (Petrides & Furnham, 2000), and TEIQue-CF (Mavroveli et al., 2009), each form of which it has a reduced version (360°-Short Form, TEIQue-ASF and TEIQue-CSF). A person can use the TEIQue 360 app to gather feedback from others (such as colleagues, managers, and subordinates at work) and see how others view their emotional intelligence. In order to strengthen or correct specific weaknesses and to improve working relationships and work performance, it also enables the individual to understand his interactions with others better. Both the modified TEIQue-AF and the TEIQue-CF are recommended for use with adolescents and children, respectively. The TEIQue-AF is intended for students between the ages of 12 and 17, while the TEIQue-CF is for students between the ages of 8 and 12.

3. Methodology

The sample of this paper consists of published research articles in valid scientific databases. It is based on studies that relate emotional intelligence to leadership and document their interaction. PubMed, Scopus and Google Scholar databases were searched for studies addressing the relationship between leadership and emotional intelligence among health professionals. The combination of keywords "leadership", "emotional intelligence", "healthcare system", and "Decision Making" were used. The following selection standards were developed:

- The language of publication of the articles should be the English language.
- To have been published between 2005 and 2022.
- Relate to workers in health care organizations.

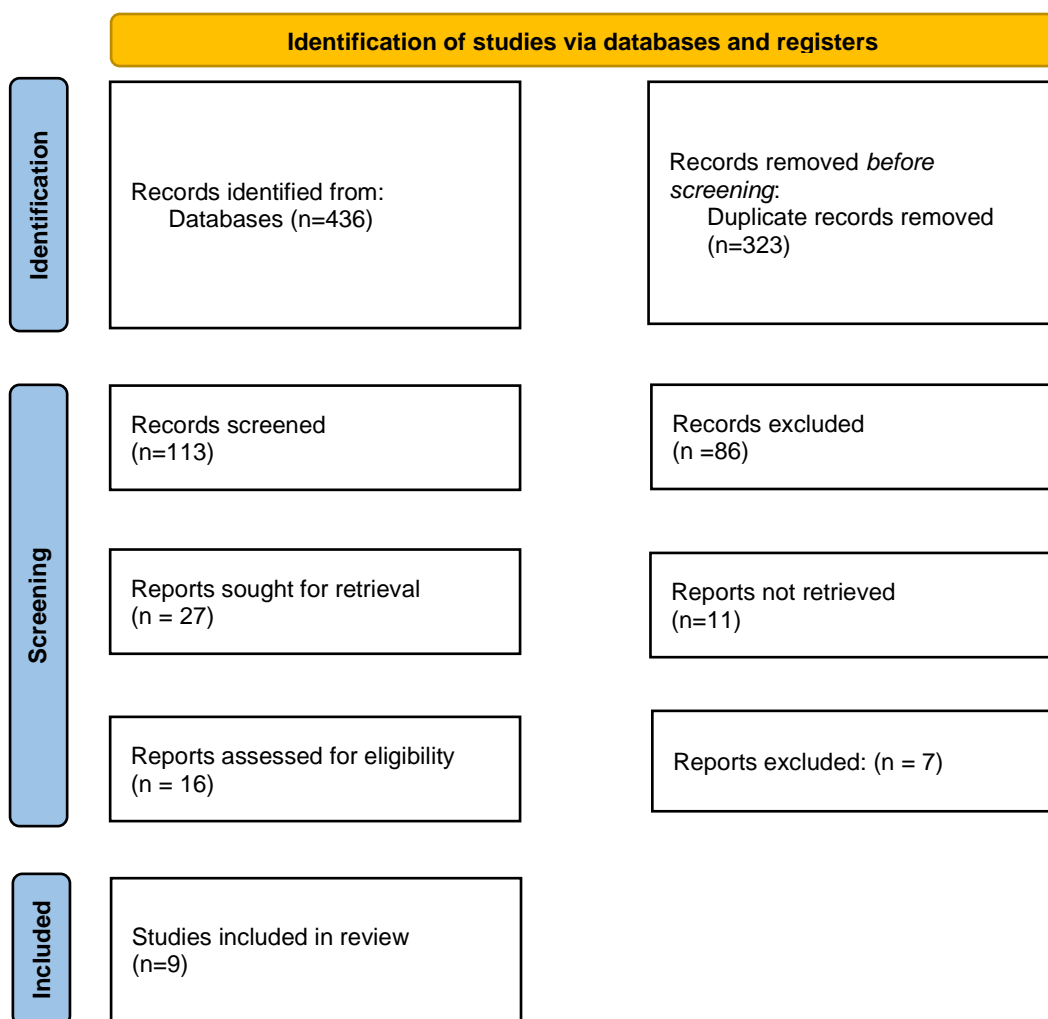
The initial search found 436 articles. Three hundred twenty-three of them were excluded after reading their titles. After screening the abstracts, 86 were excluded as they were either literature reviews or irrelevant to the study's scope. A thorough search was performed to find the full versions of the remaining 27 articles, and 16 of them were found. Nine were selected after screening, and all met the inclusion and exclusion criteria.

The nine articles in the systematic review cover studies written and published between 2005 and 2022. The procedure followed for the present systematic review is summarized in the table below (Figure 1). The table includes the following information: the author's name, the nation in which the study was conducted, the date of publication, the purpose of the study, its sample, and its key findings. Content

analysis, a valuable method for qualitative research that requires close reading and study of written material, was used to analyze the results of this systematic review.

According to Hsieh and Shannon (2005), content analysis is a research technique used to characterize observed events and draw reliable conclusions from written text analysis methodically and objectively. As illustrated in the diagram below, the systematic review process was followed from the beginning of the literature search to the completion of the review.

Figure 1. Prisma Methodology Flowchart



4. Results

The systematic review's table (Table 1) of contents encompasses the subsequent primary categories: This research examines the relationship between leadership and emotional intelligence, specifically focusing on how the former notion positively impacts the latter within healthcare organizations.

Multiple research studies have demonstrated that a leader's emotional intelligence plays a crucial role in cultivating a favorable work environment that effectively involves employees and stimulates their highest level of performance. According to the systematic review conducted by Gomez et al. (2022), the synthesis of leadership and emotional intelligence yields favorable outcomes for healthcare organizations across all analyzed articles. Empathetic leaders frequently cultivate an improved work environment for their subordinates, leading to enhanced organization, efficiency, and collaboration among healthcare professionals (Gkintoni & Ortiz, 2023b). As previously mentioned within the context of this master's thesis, it has been observed that health professional leaders who possess a high level of emotional intelligence demonstrate a comprehensive understanding of the significance of others concerning their well-being and the overall success of their profession (Gkintoni et al., 2021b). These leaders exhibit a genuine appreciation for the contributions of others and actively cultivate an environment that promotes the exchange of information, effective decision-making, and the open expression of emotional intelligence (Gkintoni et al., 2017).

Table 1. Systematic Review Research Papers

Research	Title	Purpose	Intervention	Scales/Tools - Sample	Results
Kautzman, 2011	A study of the relationship between leadership strategies and emotional intelligence in a healthcare organization	The aim of the study was to investigate the relationship between emotional intelligence and the leadership style of certain leaders, as seen through the eyes of subordinates and their observers.	A descriptive correlational design was implemented.	WLEIS LPI. N=61	Demographics focused on years of leadership and experience in health care organizations. The survey provided answers to 4 hypotheses of the study. Analysis of the data revealed that leaders' emotional intelligence was not affected by their service history.
Tyczkowski et al., 2015	Nurse managers' philosophies and emotional intelligence (EI)	The aim of the study was to gather information about the emotional intelligence and leadership styles of various healthcare company leaders	Questions were asked about demographics.	MLQ 5X, was used to assess leadership. EQ-I 2.0, was used to examine emotional intelligence. N=146	The vast majority of leaders in the present study were transformational leaders with strong emotional intelligence. However, two-thirds of participants and 62% of survey respondents have been taught methods of developing emotional intelligence.
Reshetniko et al., 2020	Leadership and Emotional Intelligence: prevailing patterns in public health professional education	In order to improve the training program of professionals in various fields, the aim of the present study was to identify and compare the key characteristics of future leaders of healthcare companies.	The way of management, as well as the ability of the participants to control their psychophysiological and emotional characteristics.	Qualitative methods, and study to assess the level of leadership and emotional intelligence. N=91	Students who have been exposed to leadership and emotional intelligence strategies throughout their academic careers perform better on the empathy test, which makes them better qualified and more experienced for leadership positions in the future.
Lucas et al., 2008	Empowering staff nurses and emotional intelligence in leadership: The regulating function of scope of control	The aim of the study was to find out if leaders gave their subordinates freedom at work and how well trained in emotional intelligence these leaders were	Observational research	CWEQ-II ECI 2.0. N=203	According to research, even leaders with high emotional intelligence find it difficult to adequately work with and motivate their followers when there are too many of them.
Al-Motlaq, 2018	A review of the research on emotional intelligence in nurse administrators and effective leadership.	The primary objective of this article is to highlight the importance of emotionally aware managers in promoting a healthy work environment for both employees and clients of health services.	To complete this review, the author reviewed a number of different articles on the site.	Electronic databases.	Interventions that can be used to improve the effectiveness of the health care system - training health personnel in emotional intelligence and leadership - are mentioned.

Cummings et al., 2005	Minimizing the effects of hospital reorganization on nurses the responsibility of emotionally capable leadership	In order to increase emotional resilience and prevent emotional exhaustion, the present study aims to emphasize to followers the importance of emotionally competent leaders. In addition, research is conducted to highlight the ideal leadership style.	Qualitative research with questionnaires.	139 question test N=84	As a result of significantly less emotional exhaustion and psychosomatic symptoms, improved emotional health, increased collaboration, and greater job satisfaction, nurses who worked with emotionally competent and coordinating/accountable leaders provided superior patient care.
Duygulu et al., 2011	Turkish Nursing Student's Leadership and Emotional Intelligence	The aim of this study is to evaluate the students' emotional intelligence and leadership skills.	Qualitative research with questionnaires.	Bar-On Emotional Intelligence Quotient Inventory Student Data Sheet. N= 154	The research findings showed that the students had high emotional intelligence, but a weak sense of leadership.
Herman, 2013	Implications for nursing leaders from understanding emotional intelligence	The aim of the present study was to establish the fundamental understanding of emotional intelligence by executives in health care organizations.	Qualitative research with questionnaires.	Questionnaire to collect demographic information and questionnaire to assess understanding of emotional intelligence. N=175	Understanding of leaders' emotional intelligence appeared to be lacking in the first questionnaire
Prezerakos, 2018	Emotional intelligence in nurse managers and effective leadership: a review of the research	Reviewing qualitative and quantitative studies on the emotional intelligence of nurse leaders,	Search the online databases Pubmed and Scopus.	Electronic bases.	The findings of the review showed that emotional intelligence is a useful tool for nurse leaders and significantly helps to achieve effective management in the healthcare industry.

The individuals are motivated to engage in self-reflection regarding their level of consciousness and acquisition of knowledge, enhancing their ability to lead themselves effectively and enabling them to recognize their areas of proficiency and constraints. This approach has the potential to foster knowledge and creativity, as well as establish therapeutic relationships that are essential for implementing evidence-based treatment. Therefore, it is recommended that healthcare organizations include these concepts to achieve the best possible outcomes based on the examination of relevant literature and the advantages associated with emotional intelligence in the context of leadership (Lubbadeh, 2020).

Emotional Intelligence and Leadership

The correlation between emotional intelligence and leadership has garnered significant interest in psychology and organizational behavior. Emotional intelligence pertains to the capacity to identify, comprehend, and regulate one's own emotions as well as the emotions of others. On the other hand, leadership encompasses the capacity to influence and guide people or a collective to achieve a shared objective. According to Gorgens and Roux (2021), successful leaders exhibit a high level of proficiency in technical abilities and demonstrate diverse interpersonal and emotional qualities. The role of emotional intelligence is of paramount importance in determining the efficacy of leadership. The following are critical elements of the correlation between emotional intelligence and leadership:

1. Self-awareness is a characteristic commonly observed in leaders with elevated levels of emotional intelligence. Individuals possess the capacity to comprehend and acknowledge their strengths, shortcomings, and emotional states, enabling them to enhance their decision-making abilities and efficiently regulate their behavior. Self-awareness enables individuals to discern the impact of their behaviors and emotions on others, fostering enhanced interpersonal interactions and communication (Giannoulis et al., 2022a; Giannoulis et al., 2022b).

2. Empathy is a significant component of emotional intelligence and is a crucial competency for individuals in leadership positions. Empathetic leaders can comprehend and actively engage with the emotions and viewpoints of their team members. This enables individuals to establish profound connections, cultivate trust, and efficiently meet specific requirements.

3. Establishing connections: Emotional intelligence facilitates cultivating favorable and efficient interactions among team individuals. Leaders with emotional intelligence can effectively handle and address conflicts, find resolutions to problems, and establish a work climate that fosters support and collaboration. According to Mysirlaki and Paraskeva (2020), individuals possessing this attribute have a heightened sensitivity toward the emotions and requirements of their team members, hence fostering an environment of collaboration, allegiance, and dedication.

4. Emotional regulation: Proficient leaders can regulate emotions and maintain composure in challenging circumstances. This cognitive capacity enables individuals to make logical decisions, enhance concentration, and effectively cope with stress (Halkiopoulos et al., 2021b). Furthermore, leaders who possess the ability to regulate their emotions have the potential to assist others in effectively managing their own emotions, resulting in enhanced team performance on a holistic level.

5. The presence of elevated emotional intelligence in leaders is frequently associated with the manifestation of inspirational leadership attributes. Leaders can inspire and encourage their team members by employing effective communication strategies, establishing a compelling vision, and exhibiting empathy. The capacity to establish emotional connections with others fosters a sense of purpose and dedication within team members (Halkiopoulos et al., 2022).

6. The attribute of adaptability is facilitated by emotional intelligence, allowing leaders to respond to dynamic environments and successfully negotiate intricate scenarios effectively. Leaders can perceive and interpret the emotions exhibited by their team members, enabling them to adapt and modify their leadership approach accordingly (Gkintoni et al., 2022a). The abovementioned adaptability amplifies their capacity to effectively assume leadership roles in various, ever-changing contexts (Lee, 2019).

Many empirical investigations have consistently demonstrated a significant and favorable association between emotional intelligence and the efficacy of leadership. Leaders with higher emotional intelligence tend to achieve tremendous success regarding employee happiness, team performance, and overall organizational outcomes. It is imperative to acknowledge that emotional intelligence is a competency that can be cultivated and enhanced via self-examination, formal instruction, and individual endeavor in a broad sense (Gkintoni et al., 2021c). Organizations that prioritize and adopt emotional intelligence as a core value while also making substantial investments in the enhancement of leaders' emotional intelligence competencies are more inclined to cultivate a leadership culture that is both constructive and efficient.

The Impact of Emotional Intelligence on Leadership

The impact of emotional intelligence on leadership inside businesses is substantial, manifesting in various ways. There are several significant ways in which emotional intelligence influences leadership.

1. Establishing robust relationships: Leaders with elevated emotional intelligence are adept at cultivating and sustaining robust relationships with their team members. They possess a heightened sensitivity to the emotions and requirements of individuals, engage in active listening, and demonstrate

empathetic behavior. Establishing trust and psychological safety within a team fosters enhanced cooperation, communication, and teamwork (Halkiopoulos et al., 2021a; Lubbadah, 2020).

2. **The Impact of Emotional Intelligence on Effective Communication in Leadership.** Leaders with high emotional intelligence have a deep understanding of their own emotions and can effectively and genuinely communicate their feelings. Furthermore, individuals can comprehend the consequences of their verbal and non-verbal expressions on others and can modify their communication approach accordingly. Consequently, this phenomenon engenders enhanced comprehension, dedication, and congruence among the organization's members.

3. **Conflict Resolution:** Conflict is an inherent aspect of organizational dynamics. However, leaders who possess emotional intelligence demonstrate enhanced capabilities in managing and successfully resolving conflicts. Individuals possess the ability to comprehend diverse viewpoints, maintain composure amidst heated circumstances, and devise resolutions that effectively address the interests of all parties concerned. Leaders have a crucial role in fostering a healthy work environment and preserving team cohesion through the constructive management of conflict (Mysirlaki & Paraskeva, 2020, Sortwell et al., 2023).

4. Emotional intelligence enables leaders to inspire and motivate their team members. They possess the ability to comprehend the underlying factors that drive human behavior and effectively access individuals' inherent motivation. Leaders with high emotional intelligence demonstrate the ability to effectively convey a captivating vision, establish unambiguous objectives, and acknowledge and incentivize accomplishments (Gkintoni et al., 2021a). They establish a constructive and motivating work environment that fosters individual and collective achievements.

5. **Decision-making:** Leaders frequently encounter intricate and demanding decisions. The utilization of emotional intelligence by leaders facilitates the enhancement of decision-making processes by incorporating intellectual elements and considering emotional and interpersonal dimensions. Leaders who possess emotional intelligence can effectively regulate their emotions, maintain objectivity, and have a strong awareness of the potential consequences of their decisions on individuals within their sphere of influence. In addition, Gomez et al. (2022) emphasize the need to solicit input from team members and value diverse perspectives since this approach enhances the inclusivity and efficacy of decision-making processes.

Adaptation and resilience leadership attributes hold significant importance in the contemporary dynamic and constantly evolving corporate landscape. Emotional intelligence empowers leaders to negotiate uncertain situations, effectively handle setbacks, and flexibly adjust their strategies in response to novel events (Antonopoulou et al., 2021a; Antonopoulou et al., 2021b). Individuals can effectively regulate their emotions and support others in adapting to change, ensuring the organization's ability to maintain its flexibility and resilience when confronted with various problems.

In summary, those in positions of leadership who possess elevated levels of emotional intelligence demonstrate enhanced efficacy in comprehending and regulating their emotional states, as well as those of others. This allows individuals to cultivate robust interpersonal connections, communicate proficiently, effectively address conflicts, motivate their teams, enhance decision-making capabilities, and successfully navigate dynamic environments (Antonopoulou et al., 2019; Antonopoulou et al., 2020). According to Gomez et al. (2022), organizations that emphasize emotional intelligence in their leadership development programs are more likely to cultivate a favorable work environment, increase employee involvement, and attain superior organizational results.

5. Discussion and Conclusion

The research emphasizes the importance of emotional intelligence within the professional setting. The extraordinary significance of this factor to employees' job satisfaction lies in its ability to emphasize their performance levels and the general effectiveness of the organization and company. Applying human resource management principles facilitates the optimization of an employee's potential, enabling them to showcase their most favorable attributes. In order to achieve this objective, the leader must recruit individuals who possess high emotional intelligence and are aligned with the leader's core values and views.

Hence, leaders must prioritize successful management, employ appropriate management strategies grounded in emotional intelligence, and foster an environment characterized by mutual respect, self-esteem, and recognition (Tzachrista et al., 2023). The efficacy of the organization's business is underscored by three key pillars: sustainability, goal attainment, and the individual and collective development of leaders and employees. The individuals stated before possessed the characteristic of providing a distinct perspective in the workplace through applying emotional intelligence (Antonopoulou et al., 2021; Antonopoulou et al., 2022b). The efficacy of individuals who can effectively transmit their vision and ideas, particularly concerning innovation and the communication of emotions, has been acknowledged (Lee, 2019).

Leaders enhance their emotional intelligence and positively impact their subordinates by demonstrating self-management behaviors, social skills, emotional stability, and adaptability. The outcome is two-fold, encompassing both the efficient functioning of the company and the ability to remain competitive in response to the evolving demands of the workforce. It has been observed that leaders who can effectively utilize the diverse facets of emotional intelligence tend to eschew criticism and instead adopt a mindset of understanding. These leaders also demonstrate a willingness to assume responsibility, exhibit authenticity in their self-expression, foster open lines of communication and trust within their teams, and provide ample room for their collaborators to contribute and be heard. The employees demonstrate a robust ethical dedication to the organization's operational effectiveness and growth. The organization is dedicated to upholding its imperatives and functions based on cooperation, equitable competition, mutual respect, and recognition principles.

Nevertheless, this endeavor has given rise to some suggestions for future implementations of emotional intelligence. It would be advantageous if the instrument could be incorporated as a standalone course within the curriculum of Greek universities at the tertiary level. In the fields of administration and economics, as well as in professions associated with education, healthcare, and international relations, this program will provide students with the opportunity to gain a comprehensive understanding of its various aspects and its influential role within the professional setting. This knowledge will benefit future administrative and financial executives navigating their careers. In addition, the inclusion of lectures delivered by business leaders can positively enhance the development of essential skills such as self-confidence, self-evaluation, self-management, adaptability, empathy, communication, cooperation, leadership, and conflict resolution (Mysirlaki & Paraskeva, 2020).

Simultaneously, it is imperative to provide suitable and focused educational and retraining initiatives for executives and newcomers on the impact of emotional intelligence in various job roles specific to each occupational setting (Antonopoulou et al., 2023). By adopting this approach, the recognition of its significance will be broadened, thereby enhancing the proficiency of existing employees and imparting

novel talents to others. Consequently, a new cohort of leaders will arise, while the existing ones will undergo evaluation and be afforded further development.

Ultimately, all firms and organizations must strive to develop a more substantial human resource base with a solid foundation and effective structural organization (Antonopoulou et al., 2022a; Gkintoni et al., 2022b; Gkintoni et al., 2023c). The following are a few fundamental strategies for enhancing emotional intelligence:

- The primary objective is to identify and classify our emotions.
- Subsequently, these emotions will be examined and utilized through cognitive restructuring and decision-making processes.
- During challenging and unfavorable circumstances, it is essential to investigate the underlying causes of the problem and strive towards finding a resolution.
- Additionally, it is crucial to demonstrate empathy towards others' emotions, exhibiting comprehension without criticism or manipulation.

The objective of leaders is twofold: firstly, to attain the highest level of personal development, and secondly, to enhance their own and their collaborators' efficacy, ensuring that the organization consistently demonstrates positive advancement and achievement.

Healthcare workers must cultivate emotional intelligence and enhance their leadership abilities. Existing data indicates a substantial relationship between emotional intelligence and, leadership effectiveness and work outcomes within the healthcare profession (Millward & Bryan, 2005; Vigoda-Gadot, 2017). According to Vigoda-Gadot (2017), the presence of emotional intelligence positively impacts various aspects of public service, including public service motivation, job satisfaction, affective commitment, and the quality of service provided to residents. Furthermore, it has been observed that emotional intelligence mediates the association between public service motivation and affective commitment, as indicated by Vigoda-Gadot (2017). In addition, cultivating leadership abilities, particularly in transformational leadership, is imperative for attaining proficient clinical leadership within healthcare environments (Millward & Bryan, 2005). According to Millward and Bryan (2005), clinical leadership encompasses utilizing efficient management techniques and transformative leadership abilities. The conventional paradigm of professional control, characterized by a significant focus on medical and technical expertise, is transforming to integrate frontline medical leadership competencies (Noordegraaf et al., 2015). The existing body of literature underscores the significance of emotional intelligence and leadership abilities within the healthcare sector. Enhancing leadership effectiveness, job satisfaction, and the quality of service provided by health professionals can be achieved through emotional intelligence. In order to enhance patient outcomes and organizational success, healthcare organizations should emphasize the cultivation of emotional intelligence and leadership competencies within their workforce.

References

- [1] Al-Motlaq, M. (2018). Nurse managers' emotional intelligence and effective leadership: A review of current evidence. *The open nursing journal*, 12, 225. [10.2174/1874434601812010086](https://doi.org/10.2174/1874434601812010086)
- [2] Antonopoulou, H., Giannoulis, A., Theodorakopoulos, L., & Halkiopoulos, C. (2022a). Socio-Cognitive Awareness of Inmates through an Encrypted Innovative Educational Platform. *International Journal of Learning, Teaching and Educational Research*, 21(9), 52–75. <https://doi.org/10.26803/ijlter.21.9.4>
- [3] Antonopoulou, H., Halkiopoulos, C, Gkintoni, E. (2023). Educational Neuroscience and its Contribution to Math Learning. *Technium Education and Humanities Journal* <https://doi.org/10.47577/teh.v4i.8237>

- [4] Antonopoulou, H., Halkiopoulos, C., Barlou, O., & Beligiannis, G. N. (2021a). Transformational Leadership and Digital Skills in Higher Education Institutes: During the COVID-19 Pandemic. *Emerging Science Journal*, 5(1), pp.1–15. DOI:10.28991/esj-2021-01252.
- [5] Antonopoulou, H., Halkiopoulos, C., Barlou, O., & Beligiannis, G. N. (2021b). Associations between Traditional and Digital Leadership in Academic Environment: During the COVID-19 Pandemic. *Emerging Science Journal*, 5(4), pp.405–428. DOI:10.28991/esj-2021-01286.
- [6] Antonopoulou, H., Halkiopoulos, C., Barlou, O., Beligiannis, G. (2020). Leadership Types and Digital Leadership in Higher Education: Behavioural Data Analysis from University of Patras in Greece. *International Journal of Learning, Teaching and Educational Research*, 19 (4), pp.110-129. DOI:10.26803/ijlter.19.4.8.
- [7] Antonopoulou, H., Halkiopoulos, C., Barlou, O., Beligiannis, G. (2019). Transition from Educational Leadership to e-Leadership: A Data Analysis Report from TEI of Western Greece. *International Journal of Learning, Teaching and Educational Research*, 18 (9), pp.238-255. DOI:10.26803/ijlter.18.9.13.
- [8] Antonopoulou, H., Halkiopoulos, C., Gkintoni, E., Katsibelis, A. (2022b). Application of Gamification Tools for Identification of Neurocognitive and Social Function in Distance Learning Education. *International Journal of Learning, Teaching and Educational Research*, 21(5), 367–400. doi:10.26803/ijlter.21.5.19
- [9] Antonopoulou, H., Katsibelis, A., Halkiopoulos, C. (2021). Cognitive Parameters Detection via Gamification in Online Primary Education During Covid-19. 15th Annual International Technology, Education and Development Conference (INTED2021), 8-10 March, Valencia, Spain. INTED2021 Proceedings, pp. 9625-9632. DOI:10.21125/inted.2021.2007
- [10] Bar-On, R. (1997). Bar-On Emotional Quotient Inventory (EQ-i): Technical manual. Toronto, Canada: Multi-Health Systems. [https://www.scirp.org/\(S\(lz5mqp453edsnp55rrgjt55\)\)/reference/ReferencesPapers.aspx?ReferenceID=2021693](https://www.scirp.org/(S(lz5mqp453edsnp55rrgjt55))/reference/ReferencesPapers.aspx?ReferenceID=2021693)
- [11] Bastian, V. A., Burns, N. R., & Nettelbeck, T. (2005). Emotional intelligence predicts life skills, but not as well as personality and cognitive abilities. *Personality and Individual Differences*, 39, 1135–1145. <https://doi.org/10.1016/j.paid.2005.04.006>
- [12] Cooper, A. and Petrides, K. V. (2010) ‘A psychometric analysis of the Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF) using Item Response Theory.’ *Journal of Personality Assessment* 92 (5): 449-457.10.1080/00223891.2010.497426
- [13] Costa, S., Petrides K.V. and Tillmann, T., (2014) ‘Trait emotional intelligence and inflammatory diseases’, *Psychology, Health & Medicine*, 19 (2): 180-189. <https://doi.org/10.1080/13548506.2013.802356>
- [14] Duygulu, S., Hicdurmaz, D., & Akyar, I. (2011). Nursing students’ leadership and emotional intelligence in Turkey. *Journal of Nursing Education*, 50(5), 281-285. 10.3928/01484834-20110130-07
- [15] Fernandez-Berrocal, P. and Extremera, N. (2006) ‘Emotional intelligence: A theoretical and empirical review of its first 15 years of history’, *Psicothema* [Online] (18): 7-12.: <http://www.psicothema.com/pdf/3270.pdf>
- [16] Giannoulis, A., Theodorakopoulos, L., & Antonopoulou, H. (2022a). Learning in second-chance schools during covid-19 case study: legal framework and distance learning platforms in greek prison. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4132811>
- [17] Giannoulis, H. Antonopoulou, C. Halkiopoulos (2022b) EDUCATIONAL LEARNING METHODS WITH GAMIFICATION ASPECTS FOR INMATES DURING PANDEMIC, *EDULEARN22 Proceedings*, pp. 5746-5751.
- [18] Gkintoni, E., & Ortiz, P. S. (2023b). Neuropsychology of Generalized Anxiety Disorder in Clinical Setting: A Systematic Evaluation. *Healthcare*, 11(17), 2446. <https://doi.org/10.3390/healthcare11172446>
- [19] Gkintoni, E., Antonopoulou, H., Halkiopoulos, C. (2023d). Emotional Neuroscience and Learning. An Overview. *Technium Social Sciences Journal*, 39, 421–429. <https://doi.org/10.47577/tssj.v39i1.8076>
- [20] Gkintoni, E., Boutsinas, B., Kourkoutas, E. (2022a). Developmental Trauma and Neurocognition in Young Adults. 14th Annual International Conference on Education and New Learning Technologies, 4th – 6th July, Mallorca, Spain. DOI:10.21125/edulearn.2022.1332

- [21] Gkintoni, E., Dimakos, I. (2022). An Overview of Cognitive Neuroscience in Education. 14th Annual International Conference on Education and New Learning Technologies, 4th – 6th July, Mallorca, Spain. DOI:10.21125/edulearn.2022.1343
- [22] Gkintoni, E., Dimakos, I., Halkiopoulou, C., Antonopoulou, H. (2023c). Contribution of Neuroscience to Educational Praxis: A Systematic Review. *Emerging Science Journal*. *Emerging Science Journal*. Special Issue "Current Issues, Trends, and New Ideas in Education" DOI: 10.28991/ESJ-2023-SIED2-012
- [23] Gkintoni, E., Halkiopoulou, C., Antonopoulou, H. (2022b). Neuroleadership an Asset in Educational Settings: An Overview. *Emerging Science Journal*. *Emerging Science Journal*, 6(4), 893–904. DOI:10.28991/esj-2022-06-04-016.
- [24] Gkintoni, E., Halkiopoulou, C., Antonopoulou, H. (2023a). Educational Neuroscience in Academic Environment. A Conceptual Review. *Technium Social Sciences Journal*, 39, 411–420. <https://doi.org/10.47577/tssj.v39i1.8208>
- [25] Gkintoni, E., Halkiopoulou, C., Antonopoulou, H., & Togiass, P. (2016). Emotional intelligence in social network consumers. *SSRN Journal*. <https://doi.org/10.2139/ssrn.4312266>
- [26] Gkintoni, E., Halkiopoulou, C., Antonopoulou, H., Petropoulos, N. (2021a). Gamification of Neuropsychological Tools as a Multi-sensory Approach of Cognition in Learning and Educational Process. Stroop's Paradigm. *Technium Applied Sciences and Technology*. DOI: 10.47577/technium.v3i8.4798
- [27] Gkintoni, E., Koutsopoulou, I., Antonopoulou, H., Christopoulos, P. (2021b). Consequences of the COVID-19 Pandemic on Greek Students' Mental Health: Quality of Life and Trauma Stressful Events Correlation. 14th Annual International Conference of Education, Research and Innovation, 8th-10th November, Seville Spain. DOI:10.21125/iceri.2021.0663
- [28] Gkintoni, E., Meintani, P.M., Dimakos, I. (2021c). Neurocognitive and Emotional Parameters in Learning and Education Process. 14th Annual International Conference of Education, Research and Innovation, 8th- 10th November, Seville, Spain. DOI:10.21125/iceri.2021.0659
- [29] Gkintoni, E., Papavasileiou, N., Antonopoulou, H., Halkiopoulou, C., & Stamoulis, G. (2017). Decision making with machine learning techniques in consumer performance: empathy, personality, emotional intelligence as mediators. *SSRN Journal*. <https://doi.org/10.2139/ssrn.4314614>
- [30] Goleman, D. (1998) Working with emotional intelligence. London: Bloomsbury. [https://www.scirp.org/\(S\(351jmbntvnsjt1aadkposzje\)\)/reference/ReferencesPapers.aspx?ReferenceID=1276001](https://www.scirp.org/(S(351jmbntvnsjt1aadkposzje))/reference/ReferencesPapers.aspx?ReferenceID=1276001)
- [31] Gómez-Leal, R., Holzer, A. A., Bradley, C., Fernández-Berrocal, P., & Patti, J. (2022). The relationship between emotional intelligence and leadership in school leaders: A systematic review. *Cambridge Journal of Education*, 52(1), 1-21. 10.1080/0305764X.2021.1927987
- [32] Görgens-Ekermans, G., & Roux, C. (2021). Revisiting the emotional intelligence and transformational leadership debate:(How) does emotional intelligence matter to effective leadership?. *SA Journal of Human Resource Management*, 19, 1279. 10.4102/sajhrm.v19i0.1279
- [33] Halkiopoulou C., Antonopoulou, H., Gkintoni E., Giannoukou I. (2021b). An Expert System for Recommendation Tourist Destinations: An Innovative Approach of Digital Marketing and Decision-Making Process. *International Journal of Innovative Science and Research Technology*, 6(4), pp.398-404. ISSN: 2456-2165.
- [34] Halkiopoulou, C., Antonopoulou, H., & Kostopoulos, N. (2023c). Utilizing blockchain technology in various applications to secure data flows. a comprehensive analysis. *Technium: Romanian Journal of Applied Sciences and Technology*, 11, 44-55. <https://doi.org/10.47577/technium.v11i.9132>
- [35] Halkiopoulou, C., Antonopoulou, H., Gkintoni, E., & Aroutzidis, A. S. (2022). Neuromarketing as an indicator of cognitive consumer behavior in decision-making process of tourism destination—an overview. *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, 679-697. https://doi.org/10.1007/978-3-030-92491-1_41
- [36] Halkiopoulou, C., Antonopoulou, H., Kostopoulos, N. (2023a). Integration of Blockchain Technology in Tourism Industry: Opportunities and Challenges. In: Katsoni, V. (eds) *Tourism, Travel, and Hospitality in a Smart and Sustainable World*. IACuDiT 2022. Springer Proceedings in Business and Economics. Springer, Cham. https://doi.org/10.1007/978-3-031-26829-8_22

- [37] Halkiopoulos, C., Gkintoni, E., & Antonopoulou, H. (2023b). Neuroeducation and Artistic Expression. An Overview from the Biopsychology Viewpoint. *Technium Education and Humanities*, 3(1), 38–49. <https://doi.org/10.47577/teh.v3i1.8235>
- [38] Halkiopoulos, C., Gkintoni, E., Antonopoulou, H., Skouroliaikos, L. (2021a). Behavioral Analysis of Personality, Branding and Emotional State in e-Sports. *Technium Social Sciences Journal*, 24(1), 434–447. DOI: 10.47577/tssj.v24i1.4723
- [39] Herman, C. R. (2013). Development emotional intelligence for increased work engagement, organisational commitment, and satisfaction with work life (Doctoral dissertation, Stellenbosch: Stellenbosch University). <https://scholar.sun.ac.za/server/api/core/bitstreams/75281da5-eeae-4009-9a7c-d2c624d02825/content>
- [40] Kautzman, R. W. (2011). An examination of the relationship between emotional intelligence and leadership practices in a healthcare organization (Doctoral dissertation, Grand Canyon University).
- [41] Lee, Y. H. (2019). Emotional intelligence, servant leadership, and development goal orientation in athletic directors. *Sport management review*, 22(3), 395-406. 10.1016/j.smr.2018.05.003
- [42] Lubbadah, T. (2020). Emotional intelligence and leadership—the dark and bright sides. *Modern Management Review*, XXV, 27, 39-50. 10.7862/rz.2020.mmr.5
- [43] Lucas, V., SPENCE LASCHINGER, H. K., & Wong, C. A. (2008). The impact of emotional intelligent leadership on staff nurse empowerment: the moderating effect of span of control. *Journal of nursing management*, 16(8), 964-973. 10.1111/j.1365-2834.2008.00856.x
- [44] Matthews, G., Zeidner, M. and Roberts, D.R., (2004) *Emotional Intelligence. Science and Myth*. London: The Mit Press. https://cdn-cms.f-static.com/uploads/1259807/normal_5c7f2232d1f04.pdf
- [45] Mavroveli, S., Petrides, K.V., Sangareau, Y. and Furnham, A. (2009) ‘Relating trait emotional intelligence to objective socioemotional outcomes in childhood’, *British Journal of Educational Psychology* 79 (2): 259-272. 10.1348/000709908X368848
- [46] Mayer, J.D., Salovey, P. and Caruso, D.R. (2002). The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT): User’s manual. Toronto: Multi-Health Systems. <https://psycnet.apa.org/record/2003-02341-015>
- [47] Mayer, J.D., Salovey, P., Caruso, D.R. and Sitarenios, G. (2003) ‘Measuring emotional intelligence with the MSCEIT V2.0.’, *Emotion* 3 (1): 97-105. <https://doi.org/10.1037/1528-3542.3.1.97>
- [48] Millward, L. J. and Bryan, K. (2005). Clinical leadership in health care: a position statement. *Leadership in Health Services*, 18(2), 13-25. <https://doi.org/10.1108/13660750510594855>
- [49] Mysirlaki, S., & Paraskeva, F. (2020). Emotional intelligence and transformational leadership in virtual teams: Lessons from MMOGs. *Leadership & Organization Development Journal*, 41(4), 551-566. <https://doi.org/10.1108/LODJ-01-2019-0035>
- [50] Noordegraaf, M., Schneider, M., Boselie, P., & Rensen, E. L. J. v. (2015). Cultural complementarity: reshaping professional and organizational logics in developing frontline medical leadership. *Public Management Review*, 18(8), 1111-1137. <https://doi.org/10.1080/14719037.2015.1066416>
- [51] Petrides, K.V. (2009) *Technical manual for the Trait Emotional Intelligence Questionnaires (TEIQue)*. London: London Psychometric Laboratory. [https://www.psychometriclab.com/adminsdata/files/TEIQue%20manual%20\(4th%20printing%20-%20contents\)%20-%20KV%20Petrides.pdf](https://www.psychometriclab.com/adminsdata/files/TEIQue%20manual%20(4th%20printing%20-%20contents)%20-%20KV%20Petrides.pdf)
- [52] Petrides, K.V. and Furnham, A. (2000) ‘On the dimensional structure of emotional intelligence’, *Personality and Individual Differences* 29 (2): 313-320. [https://doi.org/10.1016/S0191-8869\(99\)00195-6](https://doi.org/10.1016/S0191-8869(99)00195-6)
- [53] Prezerakos, P. E. (2018). Nurse managers’ emotional intelligence and effective leadership: A review of the current evidence. *The open nursing journal*, 12, 86. doi: 10.2174/1874434601812010086
- [54] Reshetnikov, V. A., Tvorogova, N. D., Hersonskiy, I. I., Sokolov, N. A., Petrunin, A. D., & Drobyshv, D. A. (2020). Leadership and emotional intelligence: current trends in public health professionals training. *Frontiers in public health*, 7, 413. doi: 10.3389/fpubh.2019.00413
- [55] Sortwell, A., Gkintoni, E. Zagarelli, S., Jemni, M., Granacher, U., Forte, P., Ferraz, R., Ramirez-Campillo, R., Carter, B., Konukman, F., Nhouri, A., Bentley, B., Marandi, P. (2023). Making Neuroscience a Key Priority in Initial Teacher Education Curricular: A Call for Bridging the Gap Between Research and Future Practices in Classroom. *Neuroscience Research Notes*. (In press)

- [56] Tyczkowski, B., Vandenhouten, C., Reilly, J., Bansal, G., Kubsch, S. M., & Jakkola, R. (2015). Emotional intelligence (EI) and nursing leadership styles among nurse managers. *Nursing administration quarterly*, 39(2), 172-180. DOI: 10.1097/NAQ.0000000000000094
- [57] Tzachrista, M., Gkintoni, E., Halkiopoulos, C. Neurocognitive Profile of Creativity in Improving Academic Performance. A Scoping Review. *Preprints 2023*, 2023071906. <https://doi.org/10.20944/preprints202307.1906.v1>
- [58] Vigoda-Gadot, E. (2017). Yours emotionally: how emotional intelligence infuses public service motivation and affects the job outcomes of public personnel. *Public Administration*, 95(3), 759-775. <https://doi.org/10.1111/padm.12342>