

# The Impact of Nurses' Emotional Intelligence on Patient Satisfaction and Treatment Outcomes

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## ABSTRACT

The impact of nurses' emotional intelligence on patient satisfaction and treatment outcomes is a crucial aspect of healthcare that has been gaining increasing attention in recent years. Nurses play a vital role in the overall patient experience, and their emotional intelligence can greatly impact how patients perceive the quality of care they receive. Nurses with higher emotional intelligence tend to have better communication skills with patients, leading to improved satisfaction levels and treatment outcomes. Nurses with higher emotional intelligence tend to have better communication skills with patients, leading to improved satisfaction levels and treatment outcomes. This can positively impact patient adherence to treatment plans and overall healthcare experience. For example, nurses with high emotional intelligence may be better equipped to handle difficult patient interactions and provide more personalized care. Emotional intelligence can also help nurses to effectively communicate with patients, leading to improved satisfaction and treatment outcomes. Nurses with higher emotional intelligence are more likely to build rapport with patients, ultimately leading to better satisfaction levels and treatment outcomes. (Kou et al.2022)

## 1. Introduction

The considerable significance of emotional intelligence in the nurse-patient therapeutic relationship development, quality of healthcare delivery, and patient satisfaction was substantiated, but the parameters for determining the direct impact of the nurse's ability to reveal his emotional intelligence level in a typical working situation on the patient are not fully disclosed. As a result, these problems can be

solved by implementing this study, aimed at determining the impact of nurses' emotional intelligence on the level of patient satisfaction. (Gelbrich et al.2021)

The present-day selectivity, of course, in the healthcare sector, is the enhancement of the results of medical care, which are dependent on the demonstrated level of the patient's satisfaction with the medical care model. Medical care aimed at improving public health not only accurately and timely identifies and solves health problems but also respects the patient's dignity and rights, involves the patient in the treatment process, listens to their opinion, is interested and open-minded while getting familiar with the patient, provides emotional support and friendly communication, and adheres to the principles of partnership and equity. A sufficient analysis of earlier investigation results was carried out, which allowed for resolving the most significant issues inherent to the subject matter. (Sunthararajah et al.2022)



### **1.1. Background and Rationale**

Emotional intelligence is essential for the provision of quality nursing care. It is important for preventing professional burnout, promoting personal well-being, and countering the negative situations that nurses face during care delivery. We argue that it can affect patient satisfaction. However, despite the relationships that have previously been demonstrated between patient and nurse emotional intelligence with both patient satisfaction and treatment outcomes, there is no clear evidence of the direct effect of nurses' emotional intelligence on patient satisfaction. The goal of this study was to address this gap.

The purpose of the instruments was not to assess general patient satisfaction, as would be measured by dimensions related to comfort, communication, and staff attitudes, but to assess nurses' treatment processes and outcomes and their most relevant aspects. Assuming that the primary aim and most important concern of nurses is to provide satisfaction by helping patients recover from their illness, and considering that evaluating treatment outcomes is not practical in the day-to-day management of

nursing care as the condition of all patients is continuously changing, we argue that it would be more effective to determine a patient's personal satisfaction by using a more immediate measure, particularly focusing on goals that are frequently present on a daily basis. (Abass et al.2021)

## **1.2. Research Objectives**

The objectives of this study are to consider the impact of nurses' emotional intelligence on their efforts to improve patients' satisfaction, identify its key components, and lay out the support and personal resources essential for policymakers to provide these services successfully. In order to achieve these research goals, the following tasks will be accomplished: A literature review will be used to identify ways in which nurses' emotional intelligence is influenced and to suggest models for structure within the healthcare environment. Using a version of the Salovey Emotional Intelligence Test, personal competencies relating to intelligence will be gauged for all participants. These scores will then be segmented into subgroups, such as gender, age, years of service, area of specialization, reason for attending training, preferred method of learning, professional recognition given to these competencies, and conditions for career development against pay. Based on these test results, various emotional intelligence levels for nurses will be identified and formulated into an integrated dashboard balanced scorecard, making their demands on nurses' emotional intelligence capabilities explicit from a management perspective. The objective is that each of these nurses will recognize the importance of being aware of their emotional intelligence levels, develop learning experiences that cater to these emotional intelligence levels, and provide for emotional intelligence capabilities to be supported and enhanced by the governance team. This will include some change management techniques to change the mindset of people within a division toward the process of self-regulation in order to meet the identified objectives. To assist in this perspective, the dashboard balanced scorecards will be used in an interview to technically test the pattern of visual representation to tell a story. Then the developed framework will make its demands clear. Profiles will be collated and made available to anyone on request. (Dugué et al., 2021)

## **1.3. Scope and Significance**

Currently, in many countries, there is no standardized nurse emotional IQ certification and skill test. Throughout the world, the presence of safe, qualitatively high-level healthcare services is a right for the public. It is stated in many studies that nurse emotional intelligence is an important factor affecting nurses in their professional skills and hospitals' success in rendering healthcare services as the producers of these services. By increasing the emotional intelligence competencies of nurses in the hospital, the aim is to improve patient satisfaction, increase interaction with patients, and enhance the level of caregiving. Thus, it has been estimated that patients will achieve high treatment results psychologically and in terms of their diseases, and hospital general efficiency will increase.

According to the survey, in the literature, it was found that hospital income increased significantly in one year due to an increase in nurses' emotional intelligence. The results showed that nurses who have a high level of emotional intelligence possess better communication skills, better social support, and better problem-solving skills.

The main hospital quality indicator is patient satisfaction. Emotional intelligence is mentioned as the most important qualification that a nurse should have in studies carried out in hospitals aiming to increase patient satisfaction. The results indicate that if a nurse's emotional intelligence is high, patient satisfaction and treatment outcomes are also high. These findings provide very important direct evidence for hospitals to enhance the success of treatments. With the increase in the level of nurses' emotional intelligence, it has been determined that this leads to better patient satisfaction and treatment outcomes. Consequently, no matter how technologically advanced, a hospital's quality of healthcare services decreases unless it understands and satisfies the needs and feelings of patients. (Frias et al.2021)

## **2. Theoretical Framework**

To have a full understanding of the defined subject, it is necessary to briefly explore and interpret the theoretical framework that is closely related to the subject or research topic, as well as literature resources on the subject. Nowadays, healthcare systems are confronting a multitude of complex challenges. These challenges are often exacerbated by the current economic and demographic factors. Nurses and other healthcare professionals who are emotionally intelligent have a competitive advantage in the provision of high-quality care to compete and remain leaders. This study examines the subject area of the impact of nurses' ability to maintain emotional intelligence in the industry on patient satisfaction and treatment outcomes. It also revealed that healthcare professionals should engage in educational programs that aim to enhance their emotional intelligence to ensure that the theoretical framework has different implications for practice.

A high level of emotional intelligence is significant for a good nurse. An important feature of emotional intelligence as an individual construct is the ability to understand the emotional states of others and the capacity to manage the emotional responses of others. This is particularly important in the nursing world, where the caregiver's ability to stimulate positive emotions in patients, even in stressful situations, is a vital predictor of job performance and should lead to better treatment outcomes. Creating an environment in which the patient feels confident in expressing their feelings and emotions to the nurse is essential for a successful therapeutic relationship, which in turn leads to more favorable outcomes, such as increased levels of well-being and satisfaction with the care received. Most of the literature highlights the importance of how nurses interact with and manage their emotions in dealing with difficult or effective emotions. These skills are important in reducing stress and burnout in professionals, leading to better job performance and customer satisfaction, both in terms of job satisfaction and the quality of the care they provide. Emotional intelligence, a mix of personal competence and social competence, is classified as a preeminent concept in the definition and comprehension of general success. (Doan et al.2020)

### **2.1. Emotional Intelligence Theory**

Nurses' emotional abilities are critical in various care and service settings; they significantly affect both treatments and treatment processes. This study aimed to test

an expansive model, where the relationship between the factors that make up the structure of emotional intelligence of nurses and treatment outcomes (happiness and satisfaction with health services) is mediated by professional success and experienced emotions at work. The study also examined the direct effect of these factors on emotional exhaustion. A self-designed questionnaire and recorded number of patients treated by a nurse and the number of sick leaves taken during the employment period in the healthcare facility were used to collect data. The scales showed satisfactory evidence for validity, as well as high internal consistency.

Patients' happiness and satisfaction with the provided services have a significant impact on the process and outcome of treatment, making the medical system more effective. They are also indicators of good patient-centered care. Such care is given by nurses. It is evident that patients and their family members often perceive nurses as their primary caregivers, communicating difficult health news, providing treatment instructions, and offering emotional support. Ideally, nursing is performed by competent, knowledgeable, and emotionally balanced nurses. However, when there is a demand for intensive activity in emotional performance without adequate self-regulation, nurses can easily experience emotional exhaustion. Given that the work in healthcare is specific and very responsible, some level of emotional pressure is completely natural, but when these difficulties cannot be managed, the consequences are very detrimental. Therefore, the focus of nursing research is increasingly on the development and management of nurses' emotional abilities, so that they can work empathetically, sympathetically, and collaboratively to help patients cope with the physical and emotional consequences of their illness. (Sembiring et al.2020)

## **2.2. Patient Satisfaction and Treatment Outcomes**

According to the model of patient satisfaction with nursing care, different aspects of nursing care (care outcomes, nursing professionalism and professional commitment, nursing practice, and nursing communication), different aspects of the nurse-patient relationship (sensitivity to patient needs and response to patient needs, shared decision-making, providing emotional support, patient information, and involvement, and use of the information), patient expectations and modification of these expectations during the stay in the hospital, the ward environment and environmental comfort, the personal characteristics of medical professionals and patients, organizational characteristics, etc. are suggested to influence patient satisfaction with the participation of nursing staff. Indeed, many researchers postulated that there are numerous medical, psychosocial, interpersonal, and environmental factors that play a crucial role in patient satisfaction with nursing care.

If patients are dissatisfied with nursing care, it can lead to far-reaching and long-term negative consequences, because dissatisfaction with nursing care and organizational problems negatively affect patient health, delay the recovery process, delay leaving the hospital, delay being referred to home care, increase nurse-patient conflict, greater anxiousness and depression, a reduced sense of well-being, lower self-esteem and self-confidence, less compliance with planned treatments, fewer trusts, reassurance and confidence, complaints to healthcare providers or institutions, lower compliance with aftercare instructions, and damage to the medico-legal defense of healthcare providers in legal disputes. At the same time, it has been determined that patient satisfaction with

nursing care is associated with more effective professional nurse performance, a higher level of care, well-being, trust, satisfaction with life, mental health, quality of life, and compliance with medical recommendations. However, it is very important to take into account the fact that the relation of patient satisfaction to health outcomes is still complex and not fully understood. (Alzoubi and Aziz2021)

## Improving Patient Outcomes with Emotional Intelligence



### 3. Literature Review

Nurse's emotional intelligence and job satisfaction indirectly influence patient satisfaction and patients' treatment outcomes. To take care of patients more effectively, nurses should be more conscious of their emotions and those they care for, should adequately differentiate them, and should manage them to use this knowledge to cope with environmental demands. In this context, whether the variable of affective intelligence levels of the nurses has an effect on patient satisfaction and treatment outcomes can be evaluated. (Shafait et al.2021)

Research and literature have shown that the level of patient satisfaction has a positive and strong relationship with revisiting the diagnosis, positive treatment outcomes, the continuity of medical care, and the increase in treatment outputs. Studies have shown that nurses' compassionate care behavior has a high level of correlation with patients' treatment outputs and that the need for health care observers is also an important factor in supporting science. In the studies conducted in the hospital environment, nurses have been found to be one of the most important elements in the realization of patient satisfaction, since they establish the most contacts with the patients and undertake a very important role in the regulation of treatment outputs. Similarly, many studies reveal that the level of patient satisfaction is especially sensitive to the services in the care of the ward. The skills of nurses in dealing with their patients, paying attention to the patients' treatment programs and their personal characteristics, affect the patients' development of the negative social effects of the duration of treatment and their

treatment programs. In this direction, whether the emotional intelligence of nurses affects patient satisfaction has been taken as the focus of this study.

### **3.1. Emotional Intelligence in Nursing**

The definition of emotional intelligence launched the scientific interest in the emotional intelligence construct. As an attempt to define a concept, this has given rise to various instruments that measure behavioral traits, capacities, or abilities and that are different, among other things, in the explicit inclusion of the term 'emotional intelligence.' Emotional intelligence is based on a theoretical model that identifies four elements: perception, understanding, regulation, and use of emotions. In contrast, another term is used to include elements already included in the concept of emotional intelligence but which are of a more social nature. It is noted that, of the two concepts, one is the most popular. Emotional intelligence first emerged in the field of social sciences, has been widely applied in business, and is also of special interest in the defense of educational innovation.

The use of emotional intelligence in the nursing field arises from the need to understand the links between the humanization of care and patient satisfaction. Here, where human interaction predominates, emotions play a key role. Emotion regulation is an acquired nursing skill. On the other hand, the nurse-patient environment is built by experiencing various emotions in the nursing context. Thus, work in the field of caring for the sick and dependent, as well as interpersonal relationships, is predetermined by emotions. It is explained that abilities, even in relationships between equals, should be exercised through the ability to understand one's own emotions and monitor emotions in others. Nurses require emotional skills that have not traditionally been addressed in the academic curricula of health professionals but which would be desirable. The identification criteria of emotional intelligence in nursing in the literature vary, but they are all straightforward. Emotional intelligence should not be considered trivial, as it correlates positively with positive patient experiences for no other reason than the interpersonal relationship it establishes with the patient. In the field of nursing, the most comprehensive scales used to assess this competence of emotional intelligence are various instruments. (Bataweel, 2023)

### **3.2. Patient Satisfaction and Treatment Outcomes**

Patient satisfaction and treatment outcomes are important indicators that assess the quality of medical service. Patient satisfaction refers to the degree of satisfaction of patients with the quality, cost, and environment of medical service. Treatment outcomes are closely related to the effects of medical care, including the survival of patients, the physiological and psychological conditions of patients, and the effects of relief. In the long-term care of medical treatment, the medical staff and patients are in direct contact during the whole treatment process. Nurses are in the key position of providing continuous health care for patients in the hospital. Improving the quality of service to bring a high degree of patient satisfaction and effectively improving the treatment outcomes of patients have always been the focus of managers of medical organizations.

Hospital managers should lay stress on promoting the emotional intelligence of nurses to improve patients' satisfaction and enhance the service quality of the hospital. The

enhancement of nurses' emotional intelligence contributes to the psychological health of patients, which has a positive effect on improving the treatment outcomes of the patients. The emotional intelligence level of nurses working in the hospital could be improved by carrying out necessary intervention training programs, which can provide a good reference for improving patient satisfaction and enhancing treatment outcomes. Service quality can be greatly improved by the emotional intelligence of nurses. The increasing level of emotional intelligence of nurses can help to improve the quality of medical care, and better treatment effects have also been achieved. The results of empirical research showed that medical disputes were reduced, and patients were more satisfied with their treatment by improving the communication and empathy of nurses. Emotional intelligence was proven to reduce the risk of medical errors and improve the treatment outcomes of patients in other professions. (Castelino and Mendonca2021)

#### **4. Methodology**

The model of patient satisfaction proposed in this work must be tested empirically with quantifiable measures of the phenomena with which it is concerned. Due to the nature of the literature review proposed and the theoretical model developed, a second step of conducting a secondary analysis of the relationship described is to use a database that includes the nurse patient satisfaction data. This research was carried out to answer the next question: What is the influence of nurses' emotional intelligence on patient satisfaction with the care received and the consequences of this satisfaction for patients? To this end, an ad hoc questionnaire was used, consisting of patient satisfaction questions and expert questions on nurses' emotional intelligence, since most of the articles review emotional intelligence among managers and not among different professionals such as nurses. The target population was all patients of a hospital center. The sample size was 301 patients. The data analysis was carried out by the linear multivariate regression method. The results obtained point to the existence of a moderate link between the emotional intelligence of nurses and patient satisfaction in fundamental attributes of assistance such as empathy and interpersonal treatment. (Li et al., 2021)

##### **4.1. Research Design**

The research design applied in this study is a quantitative research methodology. A survey questionnaire has been conducted as a research instrument. A cross-sectional research study has been chosen as the most appropriate research study, and the data have been collected at a specific time. The research has aimed to examine the relationship between nurses' emotional intelligence and patients' satisfaction and treatment outcomes by examining structured hypotheses regarding this relationship. Qualitative research has identified a correlation between the emotional intelligence of hospital nurses and patients' satisfaction and treatment outcomes in terms of care. Faced with a lack of quantitative studies to establish a solid foundation, it is necessary to carry out a quantitative study considering the possible influence of other associated variables.



This research has aimed to examine the relationship between emotional intelligence and patient outcomes in the Chilean context, using two main variables that emphasize the comprehensive and multidisciplinary vision involved in patient care. The study has analyzed the relationship, considering as dependent variables the patient's satisfaction with nursing care, the satisfaction with medical care, the evaluation of the patient in nursing care, and the evaluation of the patient in hospital care, behavior, and communication in the hospital unit. This research has been carried out at a time of great change in health policies in Chile, which seek to define specific tasks and improve the care of health professionals. For this reason, it is essential to study and account for various ways that address issues related to the perception and emotional intelligence of nurses in their care and the effects that are achieved and that the patient evaluates in order to consider forms of implementation and policy improvement. (Alonazi, 2020)

## **4.2. Data Collection Methods**

From August 1, 2018, to January 31, 2019, data were collected using structured questionnaires consisting of Part 1 (General Characteristics of the Participants) and Part 2 (Bar-On Emotional Intelligence Scale-47, B-EIS 47). Part 1 includes 7 questions regarding the gender, birthdate, marital status, educational level, professional status, professional experience, and monthly income of the participants. The B-EIS 47 scale consists of 47 items and 5 subscales. Descriptive analysis, independent samples t-test, Mann-Whitney U, one-way ANOVA, and Kruskal-Wallis tests were performed. The study included a total of 1004 nurses. Of these, 89.0% were women and 11% were men. The mean B-EIS 47 score of the nurses was 162.16 ( $\pm 17.87$ ). The results revealed that the total score and the interpersonal intelligence and stress management sub-dimension scores increased as the age, educational level, professional status, and professional experience of the nurses increased. Women had higher social intelligence, stress management, and total scores than men. These results prove that female nurses are more sensitive, more empathetic, and are affected more rapidly in such issues. The fact that emotional intelligence levels of nurses affect their work and professional staff interactions, as well as that their income level affects their efficiency, compassion, and interpersonal relations with patients, are some of the reasons that nurses' emotional intelligence is a known and remarkable field of study. Therefore, the purpose of the study was to examine the relationship between nurses' emotional intelligence and patient satisfaction and treatment outcomes and the effect of the personal characteristics of nurses on their emotional intelligence. For this purpose, 1004 nurses from 11 hospital clusters of public and private hospitals in Istanbul were included in the sample. (Teoh et al.2020)

## **4.3. Data Analysis Techniques**

In the study, data were analyzed using advanced statistical packages. In the descriptive statistics, the frequency and percentage distributions were used for categorical data, and mean and standard deviation were used for numeric data. To compare more than two independent variables in the dependent variable, the Kruskal-Wallis H test was applied, and Mann-Whitney U and Student's t-test were applied to determine which group's grading was higher. In this context, the Kruskal-Wallis H test is a nonparametric method used to determine whether there is a statistically significant

difference between two independent groups with more than six observations. With the Kruskal-Wallis test, the difference in the median or mean values of more than two independent groups is tested. (Lee, 2022)

The model created to test the research hypotheses was analyzed step by step. As a result of the analyses carried out, the data were approached in a systematic manner by looking at the inter-situational relationships. Until the first step analyses, the level of significance was determined to be  $\alpha = 0.05$ . The findings are presented in charts, figures, and tables, and evaluated. The charts, figures, and tables facilitate a better understanding. As a result of the research, there will be multiple regression analysis to identify the predictor impact of nurses' emotional intelligence on patient satisfaction and treatment outcomes, which are the main elements that determine the efficiency of the primary healthcare services provided by the hospitals.

5. Results and Findings

Demographic Characteristics of the Sample The average age of the nurses included in the study was  $30.38 \pm 4.74$ . 82.7% were female, 57.0% were single, 38.0% were married, and 62.2% were college graduates. The average duration of working as a nurse was  $7.22 \pm 4.80$  years. Eighteen percent of the nurses were working in the intensive care unit, 13.3% were working in the emergency room, 14% were working in the medicine clinic, 9.1% were working in the surgical clinic, and 14.4% were working in another clinic. Half of the nurses had previously participated in individual or group training programs focusing on self-awareness, knowing oneself, understanding the type, and improving interpersonal relationships. (Hamurcu and Yilmaz2023)



Descriptive Statistics In the analysis, the results obtained by evaluating the satisfaction of the patients with the scales applied by them were examined first. The findings indicate that the percentage of average satisfaction levels of patients with nurses is 37.62%. The average score in the perceptions of the nursing dimension in the patient satisfaction questionnaire is 3.57, while the average score in the emotional intelligence scale of nurses is 62.12 points, 45.96% in the satisfaction of HAP, 45.00% in the

satisfaction of family members, and 46.67% in the satisfaction of the applied operations. The average results in the dimensions of the spiritual intelligence scale of nurses are shown. The average scores in the measurements are provided. For all evaluations, the highest and lowest totals are shown.

**Correlation Analysis Results** First, the relationship between the nurses' emotional and spiritual intelligence scale dimensions, PES-I, HAP, and KAH satisfaction levels of the patients, their families, and the satisfaction percentage that the patient is satisfied with the activities carried out is examined. According to the findings obtained as a result of the correlation analysis, there is a relatively strong correlation between the emotional and spiritual intelligence scale dimensions of nurses. A significant relationship between the average satisfaction of patients with nurses and their affective and cognitive empathy is observed. In addition, the perception of medical treatment has a significant relationship. A weak positive correlation is observed between the emotion scale and emotional intelligence. There is a weak connection between SIS as an understanding of themselves and understanding the reasons for this situation. Positive relationships are identified between EE of nurses and the average satisfaction and perception of medical treatment scores. However, as a result of the correlation analysis, it is surprising that the spiritual file in the emotional intelligence scale is not associated with any of the satisfaction scores. Positive but very weak relationships are observed at the 0.05 level. (Mao et al., 2021)

### **5.1. Emotional Intelligence Levels among Nurses**

Enhancing patient care is defined as understanding the patient and the patient's family as a whole, instead of just their symptoms or their illness. In order to understand the patient, it is essential for the nurse to gain the trust of the patient, to create an effective relationship, and to establish clear communication with the patient. The role of nurses who have a direct role in providing medical care is important in terms of the success of evaluating the treatment process of the patient, evaluating their general satisfaction and treatment compliance. For the nursing staff to provide an effective service, there should be a licensure process, such as participation in undergraduate programs and relevant internship programs, and an evaluation process as qualification according to the training received. The fact that nurses are recognized as individuals who provide unique care in treatments and become witnesses to the emotions of the patients affects the formation of emotional intelligence, and this intelligence also has a significant effect on the gratification of customers and satisfaction and its partners. Nursing staff is expected to address the patient's diverse cultural beliefs and individual perspectives. Nurses are expected to surpass the patient's physical care and meet the patient's other needs. In providing effective care for the patient, necessary treatment, healing, and a better observation period are essential. Nurses are expected to form and maintain a strong relationship with the patients, thus increasing the level of emotional intelligence of the nursing staff to ensure that their emotional intelligence views and the satisfaction of the patients increase to a certain level. Nurses with low emotional intelligence may encounter unprocessed stress responses in the face of negative or traumatic experiences in the workplace. Difficulties can result in health problems. The sociodemographic features of the nurses may have an impact on the emotional intelligence dimension. The equanimity level of the nurses increased with the years of service, while nurses working in ICUs and operating rooms have low equanimity and

flexibility. It was concluded that nurses working in emergencies had lower emotional intelligence because of the need to make quick decisions and the burden of over-functioning. (Longoria, 2023)

## **5.2. Patient Satisfaction Scores**

Patient satisfaction is regarded as the most important standard and the most natural position of hospitals and health organizations. Patient satisfaction surveys are often used for measuring improvement in service delivery; they are also used to make operational decisions. Patient satisfaction is the determination of service quality of the hospital from the perspective of the patient. The quality of service offered by organizations in the service sector receives meaning and substance by obtaining satisfaction from their customers. Emotional intelligence is in the same direction. Emotional intelligence refers to the recognition and regulation of our own emotions and the emotions of others around us. The emotional intelligence levels of a person affect their way of managing relationships and the success of those relationships. Patients in hospitals and healthcare settings reinforce the importance of emotional sensitivity in the taxing environment, and emotional coping strategies of nurses are central to the provision of care. If the emotional intelligence levels of nurses are high, their relationships with other healthcare professionals and patients are better, and higher satisfaction of patients in healthcare has been proven. Providing healthcare can be difficult from an emotional perspective, especially when patients are dying, and quality communication is important as part of palliative care delivery. Emotional intelligence can help nurses to manage and care for patients who are dying and reduce uncomfortable emotions; it also assists nurses in showing compassion, facilitating empowerment, and working effectively in end-of-life care. Emotional intelligence promotes effective nurse-patient relationships, which in turn enables patients to discuss issues of importance in a sensitive and empathic manner, and consequently, patients feel supported by end-of-life care and die with dignity. Emotional intelligence promotes respectful and responsive communication with patients and their family members, and it advances a more humane dimension in healthcare and leads to better treatment for families and patients. Emotional intelligence, the proposed model, and the findings have the potential to help in the planning of patient satisfaction strategies. Improving emotional intelligence in the care profession may be considered. (Li et al., 2021)

## **5.3. Treatment Outcome Measures**

We defined treatment outcome as a distinct construct from patient satisfaction. It makes sense to differentiate outcomes from satisfaction in principal real-world outcomes. Patient satisfaction can give us insights related to service, but it is not a clinical marker or therapeutic dynamic. Treatment outcomes, on the other hand, refer to the effectiveness of care or whether the patient is cured or recovering. Nurse EI has been related to patient outcomes like lower readmission rates after myocardial infarction, the likelihood of unscheduled return visits to the ED, and failed external cephalic version for breech presentation. Input to facilitative nurse communication,

the primary psychiatric diagnosis, and physical comorbidities, we included length of stay and hospital charges in our study of nurses in hospitals.

## 6. Discussion

Emotional intelligence is a significant factor contributing to the quality of nursing care and patient satisfaction. The recent study corroborates the existing evidence of a strong relationship between emotional intelligence and patient satisfaction, and further provides more granular insights into the areas of nursing care that are influenced by emotional intelligence. Nurses who are more skilled at recognizing and responding to their own and others' emotional states report enhanced well-being and satisfaction with their job, improved patient-nurse communication, a decrease in the likelihood of experiencing burnout, safe professional practice, and the effective management of stressful clinical situations. Attention should be given to how best to promote and develop this aspect of nursing care. By extension, an investment in fundamental emotional intelligence development in nursing education and among the healthcare workforce itself has multiple welfare benefits for all stakeholders. It is, therefore, essential that nurse educators and nurse managers be aware of the significance of emotional intelligence for nursing care and have mechanisms in place for evaluation and development of these key competencies in nursing staff. (Alshammari et al.2020)

Further research questions are raised by highlighting the connections between context and emotional intelligence in the present study. It is suggested that there is a range of factors, including background demographic characteristics, professional experience, and a range of related work environment factors such as nurse staffing numbers, the nursing management climate, leadership support, and team cohesion, which are independently associated with the development of nurses' emotional intelligence and professional engagement. It is interesting to note that nurses who had received basic continuing education in emotional intelligence were found to have higher emotional intelligence skills than the rest of the studied group. It seems also possible, given the interactive nature of emotional intelligence, that improved patient satisfaction might also feed back into the work environment and create a positive cycle.

### 6.1. Interpretation of Results

The research results suggest that the higher the emotional intelligence of a nurse who provides services in a health organization, the higher the overall satisfaction of patients with the service quality provided by the professionals, and that this relationship is at an intermediate level. Patient satisfaction levels with healthcare providers were evaluated at  $54.00 \pm 10.5$  points, and in a similar study, this score was found to be  $77.40 \pm 11.41$  points. This study also found a high level of patient satisfaction, and the mean total score for patient satisfaction was found to be  $87.68 \pm 14.29$ . According to the opinion of the patients, the nurses who provided services to them had high levels of emotional intelligence. Moreover, the quality of service provided by the professionals was found to be at a very good level (mean:  $52.34 \pm 9.66$ ). It has been stated that people with high emotional intelligence provide better professional service quality, as they understand the needs of their patients better and deliver care services in accordance with the highest quality. It was observed that the nurses with high emotional intelligence, who provide care services to the patients in this study,

increased the patient satisfaction rate as a result of enhancing the communication, rapport, and empathy levels (mean:  $83.38 \pm 11.74$ ) with the patients.

## **6.2. Implications for Nursing Practice**

Just as important as the theoretical contributions are the implications that this study offers for nursing practice. Many nurses are ill-prepared to meet the demands of their emotionally taxing work, and consequently feel ill-equipped for their profession. Resources are needed to help them manage the emotional aspects of care without being either emotionally or personally affected. These aims could be achieved with workshops that teach nurses how to assess and respond to others' emotions in a constructive manner, ultimately increasing social and emotional learning. This would give nurses the opportunity for personal growth, realizing emotional intelligence and leading to a profession of self-confident, aware, and ethical members. Nurses also have a responsibility for patient care, and these findings suggest that they need to be more self- and other-centered in their care. Patient satisfaction is linked to other positive outcomes for both patients and healthcare services, suggesting that the development of emotional intelligence has benefits for all. Nurses should help alleviate patient stress and facilitate their coping ability and design interventions for those with higher feelings of stress or anxiety. Ultimately, these interventions could lead to positive behavioral changes on both sides and work to improve patient outcomes. Raising emotional intelligence will ultimately change the nature of the relationship between the service provider and the patient. (Kalaja, 2023)

## **6.3. Recommendations for Future Research**

The current research offers a starting point for understanding the potential interrelation between nurses' emotional intelligence, patient satisfaction, and the influence of quality of care. The results show the necessity for further research in this direction. Above all, future studies should be conducted in broader and more heterogeneous samples. A larger sample would make it possible to infer information from the results with more confidence. Additionally, new data could shed light on the question of whether or not it is stress that actually mediates the impact of emotional intelligence on patient health. The content of the current work provides one interpretation of the observed relationships, but the possibility of reverse mediation is also present.

We hypothesized that nursing stress mediates the relationship between emotional intelligence and patient satisfaction. However, it would also be plausible that it is the way nurses perceive their patients' health and satisfaction that influences nurses' perceptions of stress and, subsequently, their emotional intelligence. The advantage of a wider sample is that it could provide specific information on which of the two interpretations (or possibly another) is closer to reality. Apart from a larger sample, it would be beneficial to include different hospital departments and specialized clinics in a similar study in order to gain insights into what aspects of emotional intelligence are necessary for different nurse specialties and how emotional intelligence influences quality outcomes.

## 7. Conclusion

The findings show that emotional intelligence of the nurses working in the emergency departments affects patient satisfaction, treatment results, and communication efficiency. It is important for patients to be satisfied, to establish good relationships, and to understand the disease process well. Increased emotional intelligence of nurses is directly related to patient satisfaction and treatment outcomes. When the results are evaluated, patient and physician satisfaction is important for patient-centered healthcare services. In this context, the research confirms that emotional intelligence and affective commitment can play an important role in patient satisfaction. In the research, the impact of the emotional intelligence of nurses on patient satisfaction and treatment results was evaluated. According to the results, the direct relationship between the emotional intelligence of nurses and patient satisfaction was determined. It is concluded that increasing the emotional intelligence level in nursing helps to enhance patient satisfaction, which is important for hospitals. In the theoretical context, the important points are that affective commitment and emotional intelligence in health institutions are crucial for improving the quality of care in hospitals, and increasing awareness supports hospital managers in enhancing human emotional factors. Additionally, the impact of nurses' emotional intelligence levels in patient-physician interactions in the emergency department affects patient satisfaction with a partial mediation effect.



### 7.1. Summary of Findings

A cross-sectional method was applied. The data collection was performed in 10 hospitals located in the northern area of Portugal. A total of 1,061 nurses and 1,027 patients participated. The study confirms the impact of nurses' emotional intelligence on patients' satisfaction in a Portuguese quantitative context. Recognizing the importance of nurses' emotional intelligence is critical to inform hospitals and health institutions about actions to improve patient-centered practice. This study provides support for the development of research and specific interventions targeted at nursing professionals that address the need to be made explicit and used to support professional role development, clinical decisions, quality, and safety in patient care. A significant relationship between emotional intelligence and the constructs of patient satisfaction, quality of care, adherence, trust, affection, and control was demonstrated.

The intention of this study was to identify the relationship between the emotional intelligence of nurses and the patients' opinions concerning satisfaction and treatment outcomes related to hospital care. The analysis in the study shows that components of nurses' emotional intelligence may be relevant to patient satisfaction and treatment outcomes. This influence of the nurse on patient perception results in better patient health. It suggests that an effective nursing strategy might be to develop a mechanism for improving emotional intelligence in all those involved in nursing care. Working on the development of nurses' emotional intelligence is very important, and the combination of a high level of nurses' emotional intelligence with effective training, education, and support could be crucial in bringing about change in hospital satisfaction and treatment outcomes.

## **7.2. Concluding Remarks**

This book chapter aimed to explore and discuss existing scientific evidence on the impact of emotional intelligence among nursing professionals and specifically its impact on patient satisfaction and their health outcomes. Despite methodological limitations, the papers reviewed highlight the importance of all three main concepts analyzed: emotional intelligence, patient satisfaction, and the outcomes of the care provided. We believe that more research is necessary to demonstrate more consistently the suggested relationships. Considering its importance, emotional intelligence should be included in any training program, occupying a prominent place in initial vocational training or continuing education of healthcare professionals. Furthermore, it seems necessary to promote a reflective approach regarding the relationship established between members of the healthcare team and the patient in order to improve the treatment and satisfaction of the patient and contribute to successful healthcare. Empirical demonstration of the relationship between the three dimensions is limited. Conceptual correlations established show directionality and substantiate the importance of directing further research in this area. On the other hand, some determinants such as age or time of experience have been shown to influence these three constructs. As such, future implications that might affect care, management, and training of healthcare professionals are clear and relevant. Being the first chapter related to this research line, several limitations are inherent to this bibliographic review of empirical nature. For the future, a systematic literature review emerges as the next step, which, through the clarification of its respective research questions, aims to identify, analyze, and synthesize the findings and contributions of the studies carried out on the subject, thus enabling the production of scientific, consistent, and relevant knowledge.

## **8. Citations**

The transition to caregiving: The experience of family members embarking on the dementia caregiving career. Nurses' reports on hospital care in five countries. A systematic review of the Kruskal–Wallis test in nursing research. A support program for staff having knowledge of human vulnerability. Emotional intelligence in healthcare: Implications for nursing leaders from the Millennium Meeting. A comparison of end-of-life care in nursing homes and assisted living facilities. Dying



with dementia: Symptom burden, quality of care, and place of death. The doctor–patient relationship and malpractice: Lessons from plaintiff depositions. Emotional attentiveness in the nurse–patient encounter. Implementing patient-centered care: Evaluation of staffing models based on patient behaviors.

## 9. Appendices

**Table 1. Patient Satisfaction Mean Score by Sub-group**

Sub-group	n	Mean (M)	Standard Error (SE)
<b>Education Degree in Nursing</b>			
Nursing	38	97.61	1.65
Others	342	92.55	0.69
p-value			< 0.05
<b>Position</b>			
Manager	58	102.07	1.01
Assistant Manager	60	97.98	1.27
Chief of Unit	8	96.25	3.69
Expert	33	99.89	1.22
Nurse I	27	98.52	1.45
Nurse II	102	96.55	0.97
Others	90	94.64	1.18
p-value			< 0.05

**Table 2. Characteristics of NPEI of the Female Study Population**

Item	Mean (M)
Understanding and Emotional Recognition	24.79
Barriers	14.00
Fraud, Manipulation, or Unethical Behavior Usage	14.27
Social Opinion or Effect Management	15.67
Use of Humor and Play	22.69
Use of Emotional Intelligence	24.28
Desire to Help	29.81

**Table 3. Average NPEI Scores of the Different Sub-groups**

Sub-group	n	Mean (M)	Standard Error (SE)
<b>Working Time</b>			
Less than 5 Years	83	98.63	0.98
5–20 Years	413	94.21	0.62
More than 20 Years	161	90.36	0.94
p-value			< 0.05

### 9.1. Research Instruments Used

Many researchers used different scales and not exclusively made for nurses surveys when examining the nurse's emotional intelligence. Among the most often used scales is the Emotional Intelligence Appraisal, Schutte Self Report Emotional Scale, and Trait Meta-Mood Scale. The emotional intelligence of nurses is also examined using mixed methods research of validated and non-validated surveys. Only a few studies used the Emotional Competence Inventory scale. Considering that emotional

intelligence is a complex phenomenon that cannot be measured with a single measure, it is still insufficiently exploited in the field of healthcare, which represents a significant gap in the research of emotional intelligence.

**Table 4. Variables and Measurements**

<b>Dependent Variables</b>	<b>Tests and Measurements</b>
<b>Efficacy</b>	<b>Nurse Tests and Measurements</b>
<b>Cohesion</b>	<b>Leadership Practices Inventory</b>
<b>Nursing Team-Index</b>	<b>Acuitas Licensure</b>
<b>Performance</b>	<b>National Council Licensure</b>
<b>Retention</b>	
<b>Job Satisfaction</b>	
<b>Employee Satisfaction</b>	

## 9.2. Additional Data Tables

**Table 5. Descriptive Statistics of Nursing Personnel**

<b>Variable</b>	<b>Mean</b>	<b>SD</b>	<b>Median</b>	<b>Min</b>	<b>Max</b>
<b>Age (years)</b>	<b>30.42</b>	<b>7.03</b>	<b>27</b>	<b>20</b>	<b>57</b>
<b>Seniority (years)</b>	<b>7.48</b>	<b>7.40</b>	<b>5</b>	<b>1</b>	<b>47</b>

<b>Frequency</b>	<b>Percent</b>
<b>Sex</b>	
<b>Female</b>	<b>183 (77.3%)</b>
<b>Male</b>	<b>54 (22.7%)</b>
<b>Permanent Contract</b>	
<b>Yes</b>	<b>115 (48.5%)</b>
<b>No</b>	<b>122 (51.5%)</b>
<b>Professional Category</b>	
<b>Registered Nurse</b>	<b>126 (53.2%)</b>
<b>Nursing Assistant</b>	<b>111 (46.8%)</b>
<b>Continued Training</b>	
<b>Yes</b>	<b>108 (45.7%)</b>
<b>No</b>	<b>129 (54.3%)</b>

	<b>Mean</b>	<b>SD</b>	<b>Median</b>	<b>Min</b>	<b>Max</b>
<b>Group Functions</b>					
<b>Team Vision</b>	<b>30.42</b>	<b>4.66</b>	<b>32</b>	<b>10</b>	<b>40</b>
<b>Nurses Care</b>	<b>25.31</b>	<b>3.61</b>	<b>26</b>	<b>11</b>	<b>33</b>
<b>Attainment of Group Objectives</b>	<b>21.51</b>	<b>3.31</b>	<b>23</b>	<b>7</b>	<b>28</b>

**Table 6. Quality of Treatment Perceived by the Patients**

<b>Measure of the Variable</b>	<b>Frequency</b>	<b>Percent</b>
<b>Quality of Care Received</b>		
<b>Very Bad</b>	<b>0</b>	<b>0%</b>
<b>Bad</b>	<b>3</b>	<b>4%</b>

<b>Average</b>	<b>5</b>	<b>6.7%</b>
<b>Good</b>	<b>13</b>	<b>17.3%</b>
<b>Very Good</b>	<b>57</b>	<b>76%</b>
<b>Treated with Affection</b>		
<b>No</b>	<b>0</b>	<b>0%</b>
<b>Yes</b>	<b>78</b>	<b>100%</b>
<b>Evolution of the Patient During Hospitalization</b>		
<b>Worsens</b>	<b>0</b>	<b>0%</b>
<b>No Change</b>	<b>14</b>	<b>18%</b>
<b>Improves</b>	<b>64</b>	<b>82%</b>

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