

A Quantitative Comparison Study on Patient Perceptions of Their Nurses and Physicians' Emotional Intelligence and Quality of Care Practices

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ABSTRACT: This study explored patients' perceptions of nurses and physicians' emotional intelligence (EI) and their patient quality of care practices. By understanding EI and the role it plays in nurses and physicians interactions with patients, specialized training, and other initiatives can be developed to help improve the quality of patient care provided. This was a quantitative comparison study and used a survey questionnaires developed from the TEIQUE-SF and HCAHPS surveys to gage patients' perceptions. The instrument used to analyze patient perceptions consisted of five patient descriptive categories. Of the five descriptive categories presented, only three were used. These three patient characteristic categories were used to determine if patients viewed their nurses and doctors' EI differently. The study found patients saw their physicians as being more emotionally intelligent than their nurses. The group with the greatest variance when answering the survey was the 75 and older group. This group rated their nurses at a 3.05, but perceived their physicians to have a 3.23 EI rating. Patients in the 45 to 54 and 65 to 74 groups perceived their nurses to be more emotionally intelligent. Even though participants perceived their physicians as being more emotionally intelligent than their nurses, no significant difference existed between nurses and physicians' EI when all groups were tested using a .05 level of significance.

KEYWORDS: emotional intelligence, patients, nurses and doctors

Introduction

Emotional intelligence (EI) is a concept that has been discussed for more than 25 years. The framework for EI was presented in 1990 by Peter Salovey and John Mayer (McCleskey 2014). The earliest definition for emotional intelligence described EI as a set of skills hypothesized to contribute to the accurate appraisal and expression of emotions in oneself and in others, the effective regulation of emotion in self and others, and the use of feelings to motivate, plan, and achieve in one's life (Salovey & Mayer 1990). Since Mayer and Salovey presented the framework for EI, it has been a much debated and talked about concept. McCleskey (2014) stated emotional intelligence has been a controversial and highly criticized topic since it was established by Mayer and Salovey, but since EI's creation a number of industries and professionals have benefited from the continued study and application of this model.

Of all the industries and professionals who have benefited from the continued study of this concept, the healthcare industry in particular has gained a lot through the continued study of EI. McQueen (2004) stated that EI plays an important role in forming successful human relationships. Much of nurses and physicians responsibilities and duties revolve around establishing and maintaining relationships. Nurses and physicians work in highly stressful fast pace environments and it is important for them to be able to cope with stress and continue to interact with patients, their patients' families, and other healthcare providers positively. McQueen (2004) stated that EI seems to be a relevant concept in the healthcare industry, where it is considered important for healthcare professionals to understand patients' perspective, handle work related stresses, and engage in relationships that facilitate successful healthcare management.

Evans and Allen (2002) stated the ability to manage your own emotions while interpreting other's emotions is a useful skill in any caring environment; yet EI training is often overlooked. Evans and Allen incorporating EI training into nurses and physicians' curriculum would give them a greater understanding of themselves and the way they relate to others. It was stipulated by Evans and Allen that EI training would enable more effective interactions between physicians and patients and equip nurses and physicians with the skills to deal with highly charged emotional situations. Weng (2008) stated trust and professional respect between nurses and physicians play a critical role in reinforcing the patient-physician relationship to affect improvements in the provision of patient centered care. The

purpose of the present study was to develop an efficient training system and curriculum to better educate nurses and physicians on EI in order to improve patient perceptions of quality of care practices. By determining which group, nurses or physicians patients perceive to be more emotional intelligent, specialized training curriculum can be developed to strengthen certain areas of nurse-physician EI and help both groups better relate to patients and each other.

Research Questions and Hypotheses

To complete the present study, four research questions (RQs) were developed and null and alternate hypotheses were developed to test the RQs.

Research Questions

The following research questions (RQs) were used to explore the relationship between patients' perceptions of physicians and nurses emotional intelligence and quality of patient care:

RQ 1: Are there significant differences between patients' perceptions of the nurses and physicians emotional intelligence?

RQ 2: Are there significant differences between patient perceptions of nurses and physicians emotional intelligence, based on their relationship/familiarity with the healthcare provider?

RQ 3: Are there significant differences between patient perceptions of nurses and physicians emotional intelligence, based on their age?

RQ4: Are there significant differences between patient perceptions of nurses and physicians emotional intelligence, based on income?

Null Hypotheses

H₀ 1: There is no significant difference between patients' perceptions of nurses and physicians emotional intelligence.

H₀ 2: There is no significant difference between patient perceptions of nurses and physicians emotional intelligence, based on their relationship/familiarity with the healthcare provider.

H₀ 3: There is no significant difference between patient perceptions of nurses and physicians emotional intelligence, based on patients' age.

H₀ 4: There is no significant difference between patient perceptions of nurses and physicians emotional intelligence, based on income.

Alternate Hypotheses

H_A 1: There is a significant difference between patients' perceptions of nurses and physicians emotional intelligence.

H_A 2: There is significant difference between patient perceptions of nurses and physicians emotional intelligence, based on their relationship/familiarity with the healthcare provider.

H_A 3: There is a significant difference between patient perceptions of nurses and physicians emotional intelligence, based on patients' age.

H_A 4: There is a significant difference between patient perceptions of nurses and physicians emotional intelligence, based on income.

Results

Research question one asked, "Are there significant differences between patients' perceptions of the nurses and physicians emotional intelligence?" The results that address RQ 1 focus on the overall patients' perception of their nurses and physicians emotional intelligence. This question provides an opportunity to explore if there are significant differences in how patients view their nurses and physicians level of emotional intelligence.

H₀ 1: There is no significant difference between patients' perceptions of nurses and physicians emotional intelligence.

H_A 1: There is a significant difference between patients' perceptions of nurses and physicians emotional intelligence.

The following *t*-Test compares patients' perceptions of doctors and nurses EI and identify if there is a significant difference in the way patients perceive them. The *t*-Test revealed there was no significant difference in the way patients' perceived nurses and doctors' EI at 95% confidence

interval. Evaluated against a level of significance of $\alpha = 0.05$, the p value (0.18) was greater. Therefore, null hypothesis one there is no significant different between patients' perceptions of nurses and physicians EI failed to be rejected. Alternative hypothesis one, there is a significant difference between patients' perceptions of nurses and physicians EI was rejected.

Table 1. Findings of Overall Patients' Perception of Emotional Intelligence

Table 10: Overall Patients' Perception of Emotional Intelligence

| | Doctors | Nurses |
|------------------------------|-------------|-------------|
| Mean | 3.090769231 | 3.065384615 |
| Variance | 0.003657692 | 0.000610256 |
| Observations | 13 | 13 |
| Hypothesized Mean Difference | 0 | |
| df | 16 | |
| t Stat | 1.400982361 | |
| P(T<=t) one-tail | 0.090158081 | |
| t Critical one-tail | 1.745883676 | |
| P(T<=t) two-tail | 0.180316163 | |
| t Critical two-tail | 2.119905299 | |

Source: Adapted from "A Quantitative Comparison Study on Patient Perceptions of Their Nurses and Physicians' Emotional Intelligence and Quality of Care Practices" by Raheem Young, Copyright 2017

Research Question Two

Research question two asked, "Are there significant differences between patient perceptions of nurses and physicians emotional intelligence, based on their relationship/familiarity with the healthcare provider?" The results that address research question two analyze patients' perception of nurses and physicians EI, based on whether they had an existing relationship with the healthcare provider or if they were new patients. This question provides an opportunity to explore if there are significant differences in how patients view their nurses and physicians level of EI, based on their relationship to them.

H_0 2: There is no significant difference between patient perceptions of nurses and physicians emotional intelligence, based on their relationship/familiarity with the healthcare provider.

H_A 2: There is significant difference between patient perceptions of nurses and physicians emotional intelligence, based on their relationship/familiarity with the healthcare provider.

The next t-Test compares patients' perceptions of doctors and nurses emotional intelligence and identify if there is a significant difference in the way patients perceive them, based on relationship and familiarity. The t-Test revealed there was no significant difference in the way patients' perceived nurses and doctors' EI based on relationship and familiarity at 95% confidence interval. Evaluated against a level of significance of $\alpha = 0.05$, the p value (0.58) was greater. Therefore, null hypothesis two, "there is no significant different between patients' perceptions of nurses and physicians EI, based on relationship and familiarity", failed to be rejected. Alternative hypothesis two, "there is a significant difference between patients' perceptions of nurses and physicians' EI, based on patient's relationships" was rejected.

Table 2. Finding of Patients' Relationships with Healthcare Providers

Table 11: Patients' Relationships With Healthcare Providers

| | Doctors | Nurses |
|------------------------------|--------------|--------|
| Mean | 3.058922856 | 3.06 |
| Variance | 3.93379E-06 | 0 |
| Observations | 2 | 2 |
| Hypothesized Mean Difference | 0 | |
| df | 1 | |
| t Stat | -0.768038264 | |
| P(T<=t) one-tail | 0.291524213 | |
| t Critical one-tail | 6.313751515 | |
| P(T<=t) two-tail | 0.583048427 | |
| t Critical two-tail | 12.70620474 | |

Source: Adapted from "A Quantitative Comparison Study on Patient Perceptions of Their Nurses and Physicians' Emotional Intelligence and Quality of Care Practices" by Raheem Young, Copyright 2017

Research Question Three

Research question three asked, “Are there significant differences between patient perceptions of nurses and physicians emotional intelligence, based on their age?” The results that address RQ 3 analyze patients’ perception of nurses and physicians’ EI, based on patients’ age. This question provides an opportunity to explore if there are significant differences in how patients viewed their nurses and physicians level of EI, based on age.

H_0 3: There is no significant difference between patient perceptions of nurses and physicians emotional intelligence, based on patients’ age.

H_A 3: There is a significant difference between patient perceptions of nurses and physicians emotional intelligence, based on patients’ age.

The following tables consist of *t*-Test that compare patients’ perceptions of doctors and nurses’ emotional intelligence and identify if there were significant differences in the ways patients perceive them, based on their age group.

Table 3. Findings of Between 18 and 24 Age Group

| t-Test: Two-Sample Assuming Unequal Variances for 18-24 Age Group | | |
|---|-------------|-------------|
| | Doctors | Nurses |
| Mean | 3.175 | 3.14047619 |
| Variance | 0.012882653 | 0.014292013 |
| Observations | 10 | 10 |
| Hypothesized Mean Difference | 0 | |
| df | 18 | |
| t Stat | 0.662272319 | |
| P(T<=t) one-tail | 0.258093635 | |
| t Critical one-tail | 1.734063607 | |
| P(T<=t) two-tail | 0.51618727 | |
| t Critical two-tail | 2.10092204 | |

Source: Adapted from “A Quantitative Comparison Study on Patient Perceptions of Their Nurses and Physicians’ Emotional Intelligence and Quality of Care Practices,” by Raheem Young, Copyright 2017

As seen in Table 7, this *t*-Test revealed there was no significant difference in the way patients in the 18 to 24 age group perceived their nurses and doctors’ emotional intelligence based on a 95% confidence interval. Evaluated against a level of significance of $\alpha = 0.05$, the *p* value (0.51) was greater.

Table 4. Findings of Between 25 and 34 Age Group

| t-Test: Two-Sample Assuming Unequal Variances for 25-34 Age Group | | |
|---|-------------|-------------|
| | Doctors | Nurses |
| Mean | 3.106538992 | 3.069079471 |
| Variance | 0.060668072 | 0.025794085 |
| Observations | 46 | 46 |
| Hypothesized Mean Difference | 0 | |
| df | 77 | |
| t Stat | 0.864028574 | |
| P(T<=t) one-tail | 0.195127896 | |
| t Critical one-tail | 1.664884537 | |
| P(T<=t) two-tail | 0.390255791 | |
| t Critical two-tail | 1.991254395 | |

Source: Adapted from “A Quantitative Comparison Study on Patient Perceptions of Their Nurses and Physicians’ Emotional Intelligence and Quality of Care Practices,” by Raheem Young, Copyright 2017

The *t*-Test revealed there was no significant difference in the way patients in the 25 to 34 age group perceived their nurses and doctors’ EI based on a 95% confidence interval. Evaluated against a level of significance of $\alpha = 0.05$, the *p* value (0.39) was greater.

Table 5. Findings of Between 35 and 44 Age Group

| t-Test: Two-Sample Assuming Unequal Variances for 35 to 44 Age Group | | |
|--|--------------|-------------|
| | Doctors | Nurses |
| Mean | 3.049051017 | 3.053962462 |
| Variance | 0.038385778 | 0.025973996 |
| Observations | 109 | 109 |
| Hypothesized Mean Difference | 0 | |
| df | 208 | |
| t Stat | -0.202122781 | |
| P(T<=t) one-tail | 0.420009145 | |
| t Critical one-tail | 1.652212376 | |
| P(T<=t) two-tail | 0.84001829 | |
| t Critical two-tail | 1.971434659 | |

Source: Adapted from "A Quantitative Comparison Study on Patient Perceptions of Their Nurses and Physicians' Emotional Intelligence and Quality of Care Practices," by Raheem Young, Copyright 2017

The *t*-Test revealed there was no significant difference in the way patients in the 35 to 44 age group perceived their nurses and doctors' EI based on a 95% confidence interval. Evaluated against a level of significance of $\alpha = 0.05$, the *p* value (0.84) was greater.

Table 6. Findings of Between 45 and 54 Age Group

| t-Test: Two-Sample Assuming Unequal Variances for 45 to 54 Age Group | | |
|--|--------------|-------------|
| | Doctors | Nurses |
| Mean | 3.019871513 | 3.060857764 |
| Variance | 0.033166469 | 0.029586965 |
| Observations | 110 | 109 |
| Hypothesized Mean Difference | 0 | |
| df | 217 | |
| t Stat | -1.712294804 | |
| P(T<=t) one-tail | 0.044135442 | |
| t Critical one-tail | 1.651905861 | |
| P(T<=t) two-tail | 0.088270883 | |
| t Critical two-tail | 1.970956301 | |

Source: Adapted from "A Quantitative Comparison Study on Patient Perceptions of Their Nurses and Physicians' Emotional Intelligence and Quality of Care Practices," by Raheem Young, Copyright 2017

The *t*-Test revealed there was no significant difference in the way patients in the 45 to 54 age group perceived their nurses and doctors' EI based on a 95% confidence interval. Evaluated against a level of significance of $\alpha = .05$, the *p* value (0.08) was slightly greater.

Table 7. Findings of Between 55 and 64 Age Group

| t-Test: Two-Sample Assuming Unequal Variances for 55 to 64 Age Group | | |
|--|-------------|-------------|
| | Doctors | Nurses |
| Mean | 3.079831728 | 3.047560519 |
| Variance | 0.017609301 | 0.052437676 |
| Observations | 103 | 103 |
| Hypothesized Mean Difference | 0 | |
| df | 164 | |
| t Stat | 1.237482767 | |
| P(T<=t) one-tail | 0.108838371 | |
| t Critical one-tail | 1.654197929 | |
| P(T<=t) two-tail | 0.217676742 | |
| t Critical two-tail | 1.974534576 | |

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The *t*-Test revealed there was no significant difference in the way patients in the 55 to 64 age group perceived their nurses and doctors' EI based on a 95% confidence interval. Evaluated against a level of significance of $\alpha = 0.05$, the *p* value (0.21) was greater.

Table 8. Findings of Between 65 and 74 Age Group

| t-Test: Two-Sample Assuming Unequal Variances for 65 to 74 Age Group | | |
|--|--------------|-------------|
| | Doctors | Nurses |
| Mean | 3.04526749 | 3.05689874 |
| Variance | 0.028437987 | 0.018850358 |
| Observations | 27 | 27 |
| Hypothesized Mean Difference | 0 | |
| df | 50 | |
| t Stat | -0.277927302 | |
| P(T<=t) one-tail | 0.391107108 | |
| t Critical one-tail | 1.675905025 | |
| P(T<=t) two-tail | 0.782214216 | |
| t Critical two-tail | 2.008559112 | |

Source: Adapted from “A Quantitative Comparison Study on Patient Perceptions of Their Nurses and Physicians’ Emotional Intelligence and Quality of Care Practices,” by Raheem Young, Copyright 2017

The *t*-Test revealed there was no significant difference in the way patients in the 65 to 74 age group perceived their nurses and doctors’ EI based on a 95% confidence interval. Evaluated against a level of significance of $\alpha = 0.05$, the *p* value (0.78) was greater.

Table 9. Findings of Above 75 Age Group

| t-Test: Two-Sample Assuming Equal Variances for Above 75 Age Group | | |
|--|-------------|-------------|
| | Variable 1 | Variable 2 |
| Mean | 3.232142857 | 3 |
| Variance | 0.077168367 | 0.001133787 |
| Observations | 2 | 2 |
| Pooled Variance | 0.039151077 | |
| Hypothesized Mean Difference | 0 | |
| df | 2 | |
| t Stat | 1.173230833 | |
| P(T<=t) one-tail | 0.180756556 | |
| t Critical one-tail | 2.91998558 | |
| P(T<=t) two-tail | 0.361513113 | |
| t Critical two-tail | 4.30265273 | |

Source: Adapted from “A Quantitative Comparison Study on Patient Perceptions of Their Nurses and Physicians’ Emotional Intelligence and Quality of Care Practices,” by Raheem Young, Copyright 2017

The *t*-Test revealed there was no significant difference in the way patients in the 75 and up age group perceived their nurses and doctors’ EI based on a 95% confidence interval. Evaluated against a level of significance of $\alpha = .05$, the *p* value (0.36) was greater. There were no significant differences found in any of the participants’ age groups in the present study. The 45 to 54 age group recorded the closest *p* value (0.08), but it was still greater than the 0.05 level of significance. Since no age groups showed a significant difference in the way they perceived their nurses and physicians EI, null hypothesis three there is no significant different between patients’ perceptions of nurses and physicians EI, based on patients’ age failed to be rejected. Alternative hypothesis three, there is a significant difference between patients’ perceptions of nurses and physicians EI was rejected.

Research Question Four

Research question four asked, “Are there significant differences between patient perceptions of nurses and physicians emotional intelligence, based on income?” The results that address RQ 4 address patients’ perception of nurses and physicians EI, based on patients’ annual income. This question provides an opportunity to explore if there are significant differences in how patients view their nurses and physicians level of EI, based on income.

H_0 4: There is no significant difference between patient perceptions of nurses and physicians emotional intelligence, based on income.

H_A 4: There is a significant difference between patient perceptions of nurses and physicians emotional intelligence, based on income.

The following tables were used to identify if there were significant differences in the way patients perceived their physicians and nurses' EI, based on their level of income.

Table 10. Findings of Below \$25,000 Income Group

| t-Test: Two-Sample Assuming Unequal Variances for Income Level Below \$25,000 | | |
|---|-------------|-------------|
| | Doctors | Nurses |
| Mean | 3.148555149 | 3.068154762 |
| Variance | 0.099468203 | 0.033288112 |
| Observations | 20 | 20 |
| Hypothesized Mean Difference | 0 | |
| df | 30 | |
| t Stat | 0.986837264 | |
| P(T<=t) one-tail | 0.165807574 | |
| t Critical one-tail | 1.697260887 | |
| P(T<=t) two-tail | 0.331615147 | |
| t Critical two-tail | 2.042272456 | |

Source: Adapted from "A Quantitative Comparison Study on Patient Perceptions of Their Nurses and Physicians' Emotional Intelligence and Quality of Care Practices," by Raheem Young, Copyright 2017

The following *t*-Test revealed there was no significant difference in the way patients with an income below \$25,000' perceived their nurses and physicians' EI based on patients' income at 95% confidence interval. Evaluated against a level of significance of $\alpha = 0.05$, the *p* value (0.33) was greater.

Table 11. Findings of \$26,000 to \$55,000 Income Group

| t-Test: Two-Sample Assuming Unequal Variances for Income Level \$26,000-\$55,000 | | |
|--|--------------|-------------|
| | Doctors | Nurses |
| Mean | 3.035714286 | 2.928571429 |
| Variance | 3.068393913 | 3.078955848 |
| Observations | 89 | 89 |
| Hypothesized Mean Difference | 0 | |
| df | 176 | |
| t Stat | -0.447900589 | |
| P(T<=t) one-tail | 0.32738789 | |
| t Critical one-tail | 1.653557435 | |
| P(T<=t) two-tail | 0.65477578 | |
| t Critical two-tail | 1.973534388 | |

Source: Adapted from "A Quantitative Comparison Study on Patient Perceptions of Their Nurses and Physicians' Emotional Intelligence and Quality of Care Practices," by Raheem Young, Copyright 2017

The following *t*-Test revealed there was no significant difference in the way patients with an income between \$26,000 and \$55,000 perceived their nurses and physicians' EI based on patients' income at 95% confidence interval. Evaluated against a level of significance of $\alpha = 0.05$, the *p* value (0.65) was greater.

Table 12. Findings of \$56,000 to \$100,000 Income Group

| t-Test: Two-Sample Assuming Unequal Variances for Income Level \$56,000-\$100,000 | | |
|---|-------------|-------------|
| | Doctors | Nurses |
| Mean | 3.047166934 | 3.046126626 |
| Variance | 0.030413255 | 0.022300234 |
| Observations | 194 | 194 |
| Hypothesized Mean Difference | 0 | |
| df | 377 | |
| t Stat | 0.063110557 | |
| P(T<=t) one-tail | 0.474855957 | |
| t Critical one-tail | 1.648905466 | |
| P(T<=t) two-tail | 0.949711915 | |
| t Critical two-tail | 1.966276388 | |

Source: Adapted from "A Quantitative Comparison Study on Patient Perceptions of Their Nurses and Physicians' Emotional Intelligence and Quality of Care Practices," by Raheem Young, Copyright 2017

The *t*-Test revealed there was no significant difference in the way patients with an income between \$56,000 and \$100,000 perceived their nurses and physicians' EI based on patients' income at 95% confidence interval. Evaluated against a level of significance of $\alpha = 0.05$, the *p* value (0.94) was greater.

Table 13. Findings of Above \$100,000 Income Group

| t-Test: Two-Sample Assuming Unequal Variances for Income Level Above \$100,000 | | |
|--|--------------|-------------|
| | Doctors | Nurses |
| Mean | 3.056984528 | 3.06259379 |
| Variance | 0.035079924 | 0.060660283 |
| Observations | 102 | 102 |
| Hypothesized Mean Difference | 0 | |
| df | 189 | |
| t Stat | -0.183087472 | |
| P(T<=t) one-tail | 0.42746282 | |
| t Critical one-tail | 1.652955802 | |
| P(T<=t) two-tail | 0.85492564 | |
| t Critical two-tail | 1.972595079 | |

Source: Adapted from "A Quantitative Comparison Study on Patient Perceptions of Their Nurses and Physicians' Emotional Intelligence and Quality of Care Practices," by Raheem Young, Copyright 2017

This *t*-Test revealed there was no significant difference in the way patients with an income above \$100,000 perceived their nurses and physicians' EI based on patients' income at 95% confidence interval. Evaluated against a level of significance of $\alpha = 0.05$, the *p* value (0.85) was greater. There were no significant differences found in any of the participant income groups. Since no patient income groups showed a significant difference in the way they perceived their nurses and physicians' EI, null hypothesis four there is no significant different between patients' perceptions of nurses and physicians EI, based on patients' incomes failed to be rejected. Alternative hypothesis four, there is a significant difference between patients' perceptions of nurses and physicians EI was rejected.

Discussion

The results of the present are beneficial to the healthcare industry on multiple levels. Understanding EI and its role in providing quality patient experiences can help improve health outcomes and quality care practices. Implementation of the EI training can help healthcare providers, like nurses and physicians better interact with patients, their families, and each other. A greater understanding of EI could also help nurses and physician cope with stress, improve job satisfaction, and help mitigate the feeling of "burnout." The present study may influence healthcare providers to be more cognizant of their attitudes and the words they use when interaction with patients and others.

The results of the present study have several implications for social change. Many of the groups surveyed viewed their physicians to be more emotionally intelligent than their nurses, but there was not a big enough margin in their perceptions of the two groups to exhibit a significant difference. Based the findings, patients' believed their nurses and physicians EI was on the same level or similar to one another. This is neither good nor bad, it simply suggests there is an opportunity for healthcare organizations to implement EI training and room for both nurses and physician to improve.

Another implication for social change is to look how facilities accommodate patients and their families. Findings from the present study suggest patients perceived their overall care and treatments by the hospital or healthcare facilities was low and in most cases were much lower to those of the physicians and nurses' EI. Cleary and McNeil (1988) stated the characteristics of healthcare providers and organizations resulting in personal care are associated with higher levels of satisfaction. Further, studies have shown more personal care could result in better communication and more patient involvement. The present study found patients usually perceive their medical experiences in a holistic manner. If hospitals and other healthcare facilities implemented EI curriculum and training for physicians and nurses, their improved EI would influence the way patients perceived their overall experience at the facility.

The last implication for social change is to explore how EI influences the people on a universal level and not just in the healthcare area. Looking back at the present study, one has to take into account the EI level of the participants because their EI plays a role in the way they perceived their nurses and physicians level of EI and their overall treatment while receiving care. Shooshtarian et al. (2013) studied workers in Fars Province Industries in Iran. These workers were given the MSEIS 1 Emotional Intelligence surveys and results found the EI levels of Fars Province workers positively correlated to job satisfaction and job performance. It was found that people view their experiences holistically. Through further implementation of EI training, individuals may become more satisfied and their ability to interact with others might increase.

Recommendations for Research

A recommendation for future research is to investigate the two patient demographic categories represented in the questionnaire that were not discussed in the data analysis further. The two patient demographic categories were patients' marital status and patients' ethnicity and racial background. Future research can be developed to examine these patient categories and determine if these factors affect how patients perceive their nurses and physicians EI and quality of care practices. Investigating if there is a significant difference in the way male and female patients perceive their physicians and nurses' EI would be also a recommendation for future research. Another recommendation for future research is to explore a similar study to the present one, reducing the five year hospitalized and medical attention period to one or two years. Patients that were hospitalized or received medical attention three to five years ago may not remember their interactions with nurses and physicians as well as someone that interacted with a healthcare provider one or two years ago. If patients were able to vividly remember their experiences after years pass, their experiences could have been extremely negative or traumatic. Negative or traumatic memories could affect how participants answered survey questions.

The next recommendation for future study is to examine people's perceptions of nurses and their contributions to the field of healthcare. Participants in the patient age and patient income categories perceived their physicians to be more emotionally intelligent than their nurses. It was assumed that participants would view nurse to be more emotionally intelligent before the research was conducted, due to the amount of interactions and time spent with patients. The results of the present were intriguing and led to the development of further questions that may be examined in future studies. Did participants associate nurses with pain or discomfort? Future studies should be developed to further examine why participants perceived their physicians to be more emotionally intelligent and to see if patients associate pain and discomfort to their nurses more than to their physicians. An interesting study surrounding the topic of EI in healthcare is to examine how healthcare providers, like nurses and physicians perceive the EI levels of their patients. It is possible that patients' EI could affect nurses and physicians willingness to care for them. It is important for everyone in society to exhibit a level of EI and it would be interesting to see how nurses and physicians view their patients. Continuing to explore these relationships, but from different viewpoints would be an interesting study.

Conclusion

The present study explored if there are significant difference between patients' perceptions of their nurses and physicians' EI and their patient quality of care practices. Through building on the knowledge of this topic and identifying the role EI plays in nurses and physicians' interactions, specific EI initiatives can be developed to help improve the quality of patient/provider interactions. The present study was a quantitative comparison and utilized a survey questionnaire to gauge patients' perceptions of their healthcare providers' EI and their overall view of the hospital or medical facility they received care. Six hundred thirteen participants began the survey, while 407 completed it entirely, giving the present study a sample size of $N = 407$. The data gathered were analyzed using Microsoft Excel 2013.

The present study found patients perceive their physicians to be slightly more emotionally intelligent than their nurses, but no significant difference existed between nurses and physicians' EI when tested using a 0.05 level of significance. The concept of EI has been around for more than two decades, but organizations are just beginning to utilize it in order to improve workplace relationships

in various areas of healthcare and academia. Studies have shown there are many benefits to having EI curriculum introduced in the classroom and workplace. Emotionally intelligent individuals are more likely to understand their own as well as others emotion, handle stress better, and positively interact with colleagues. Within the field of healthcare especially, EI training would benefit all facets of the industry.

References

- Cleary, P., & McNeil, B. 1988. Patient satisfaction as an indicator of quality care, inquiry. *The Challenge of Quality*, 25(1): 25-36. Retrieved from http://www.jstor.org/stable/29771928?seq=1#page_scan_tab_contents.
- Evans, D., & Allen, H. 2002. "Emotional intelligence: its role in training." *Nursing Times* 98(27): 41-42. Retrieved from: <http://europepmc.org/abstract/med/12123168>.
- McCleskey, J. 2014. "Emotional intelligence and leadership: A review of the progress, controversy, and criticism." *International Journal of Organizational Analysis*, 22(1): 76-93. Retrieved from http://www.academia.edu/8951874/Emotional_Intelligence_and_Leadership_Progress_Controversy_and_Criticism
- McQueen, A. 2004. "Emotional intelligence in nursing work." *Journal of Advanced Nursing*, 47(1): 101-108. Retrieved from: <http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2648.2004.03069.x/abstract?userIsAuthenticated=false&deniedAccessCustomisedMessage=>.
- Salovey, P., & Mayer, J. 1990. "Imagination, cognition, and personality." *Emotional Intelligence* 9(3): 185-211, Retrieved from <http://journals.sagepub.com/doi/pdf/10.2190/DUGG-P24E-52WK-6CDG>.
- Shoostarian, Z., Ameli, F., & Amini-Lari, M. 2013. "The Effects of Labor's Emotional Intelligence on Their Job Satisfaction, Job Performance and Commitment." *Iranian Journal of Management Studies*, Article 2, Volume 6, Issue 1-Series #6, winter 2013, Page 27-43 doi:10.22059/ijms.2013.30123.
- Weng, H. C. 2008. "Does the physician's emotional intelligence matter? Impacts of the physician's emotional intelligence on the trust, patient-physician relationship, and satisfaction." *Health Care Management Review* 33(4): 280-288 doi:10.1097/01.HCM.0000318765.52148.b3.