Significance of Emotional Intelligence on the Caring Behaviors of First Year Prelicensure Nursing Students

By Nadine Wodwaski, DNP, MSN-ed, RN, ACNS

Abstract

In a previous study (Wodwaski, 2018) the results indicated that the emotional intelligence (EI) of first year nursing students had rather low EI scores in all four dimensions of perceiving emotions, use of emotions in facilitating thoughts, understanding emotions, and managing emotions. To provide greater insight into what is most likely a complex relationship between previous healthcare experience and nursing students EI, a simple linear regression was performed to address if there was a relationship between the first-year nursing students twelve EI scales and healthcare experience. A significant regression equation was found ($F(1,20) = 1.239146$, $p < .001$), with an $R^2$ of 0.058343. The difference in EI score between Pre-and Post-test was used as the response and years of healthcare experience were used as the predictor. Significant relationships were uncovered for emotional self-control and positive outlook.

Keywords: emotional intelligence, caring, nursing students, healthcare experience, academia

Introduction

To an increasing extent, the healthcare arena is being influenced by numerous pressures that impact the education of nurses. The Institute of Medicine (IOM) reports include the need for nurses to transform health by being the change agent (IOM, 2010). Distinctively, the education of nursing programs is requested to develop the alumnae with the skills to lead across all levels of the nursing profession (Fitzpatrick, 2016). Nurses must be excellent change agents who are emotionally intelligent professionals and are prepared to deliver compassionate care that is safe, quality patient-centered care.

Inherently, the nursing profession attends to individual interactions, which frequently involves discord in difficult healthcare arenas, such as the emergency room, intensive care units, and acute care settings. The literature in the nursing arena is linking emotional intelligence (EI) with the competence to manage stress, cope with conflict and effectively provide quality patient care, and all the while providing compassionate care (Orak, Farahani, Kelishami, Seyedfatemi, et al., 2016; Khamisa, Peltzer, Ilic & Oldenburg, 2016). EI proficiencies are fundamental elements of the practice of professional nursing and include the skill to express self-awareness and empathy, together with inspiring others and exhibiting exceptional interpersonal competence (Şenyuv, Kaya, İşik & Bodur, 2014). Additionally, the EI competencies are vital for the nursing profession in handling feelings to improve quality client outcomes and clinical practice (Akerjordet & Severinsson, 2016).

Nurses are expected to respect all of the patients’ needs. Therefore, high levels of EI become fundamental for ascertaining valuable connections that provide quality care, which is compassionate in nature. Every intervention that nurses provide involves EI. Thus, EI competence has been identified by nursing faculty, nursing students and the healthcare system as necessary for optimal nursing practice (Beckham, 2017). Nurses with an increased EI competence have a keen consciousness of their personal emotions. This provides them with proficiencies to improve
quality client care by handling the emotional stresses of the healthcare arena (Kozub, Brown & Ecoff, 2016). In nursing, the client is the top priority, and effective, yet compassionate nursing care should be delivered in such a manner that clients feel respected and are treated with human kindness.

Therefore, developing EI competencies can assist the “soon to be” professional nurse with the ability to manage the acute stresses within the healthcare setting (Yoo & Park, 2015). The comprehension of emotional aptitude within the academic arena could aid educators to ponder upon the personal encounters students develop amid their clinical environment (Shanta & Gargiulo, 2014). The main emphasis of this research inquiry focuses on the influence of the nursing courses and the development of EI, a quality attribute considered advantageous by healthcare organizations. Consequently, the objective of this study is to examine the current research available regarding the development of EI in nursing students at the baccalaureate level.

Background
Numerous philosophies are available concerning emotional intent and connecting an emotional encounter with an experience. Still, similar exposure may cause a different emotional occurrence within every person. Therefore, nursing students should develop an awareness of emotional aptitude in their patients. During their academic journey, educators may assist with the personal and emotional encounters students face in the hospital setting. Fitzpatrick (2016) asserts that effectively interacting with patients in the clinical setting, students should be able to develop emotional competency.

Within the context of nursing it is the belief that emotional competence is imperative to cultivating EI which is a significant component in training nursing students for their clinical practice (Cerit & Beser, 2014). Several researchers maintain that emotional competence is the outcome of conscious professional and personal encounters (Kozub, Brown & Ecoff, 2016; Beckham, 2017). Emotional competence entails resilience and self-efficacy while acting in accord with one’s sense of moral character (Saami, 1999). By cultivating the essential qualities required to recognize emotion, students may acquire the skills necessary to control their reactions to another individual, as they care for the individual at the bedside. Therefore, as students matriculate through the baccalaureate curriculum, educators can provide students with patient opportunities in which skills and theory are applied in the real life situations challenging their emotional intelligence. Likewise, EI growth should be strengthened through the development of students’ emotional competence as part of their educational preparation (Badolamenti, Sili, Caruso & Fida, 2017).

Significance
The fundamental development of EI competencies in academia has been suggested for many professions but is foundational to higher education, including nursing (Badolamenti, Sili, Caruso & Fida, 2017). Competencies in the academic setting, including self-awareness, self-regulation, self-motivation and empathy may assist the undergraduate nursing student with the understanding of the hospitalized patient’s emotional challenges that arise in difficult clinical situations. Likewise, for nursing students to learn and have the ability to function effectively within a complex and diverse nursing profession, educators can assist the student with the development of EI and further cultivate their caring approach, allowing the unique patient to feel cared for and respected. Since healthcare is ever-changing, the hospital arena raises the need for nursing professionals to have EI and, thus, have the ability to foster quality client outcomes through a collegiate experience. In consideration of the above, the goal of this inquiry was to evaluate if there is a relationship between first-year nursing student’s twelve EI competencies and previous healthcare experience.

Methods

Theoretical Framework
It is essential to base nursing care on an established theoretical framework in order to improve
treatment outcomes (Clark, 2016). In the present study, Watson's Theory of Human Caring was utilized as a guide to understanding nursing students’ EI. This is based on the idea that humans cannot be treated as objects; they cannot be separated from their self, others, nature and the universe (Watson, n.d.). The Theory of Human Caring additionally states that compassionate care requires being “in the moment”, responsive, mindful and purposeful (Summerell, 2015). In this approach, nursing is centered on helping the client attain a deeper intensity and profound harmony of the body, mind, and spirit, within a relationship that is transpersonal and caring. Watson believes that love, compassion, and forgiveness in clients and nurses are essential to the healing process (Watson, n.d.). The conceptual elements of the Theory of Human Caring include the Caritas process, the transpersonal caring relationship, caring moments and caring occasions and caring–healing modalities (Clark, 2016).

To achieve this, the student nurse must have a caring mindset to deliver holistic care grounded in emotional connection and compassion. As the students matriculate through the baccalaureate nursing program, they can utilize the EI competencies to put clinical clients at ease and provide optimal care. Watson’s work embodies this phenomenon and obliges the student nurse to emanate love and kindness in all interactions (Watson, n.d.).

Research question
Previous healthcare experience may affect the nursing student’s EI. The present inquiry was designed to see if there is a relationship between previous healthcare experiences and the development of EI in baccalaureate nursing students.

Design
The Institutional Review Board granted approval from the supervising university of higher education prior to data collection. By utilizing the web-based surveys provided by Hay Group, all participants were deidentified and we did not collect IP addresses or any additional information apart from the survey data. The link to the online surveys including a cover and consent letters were e-mailed to 22 first year, baccalaureate, clinically-prepared nursing students. Participating in this inquiry was voluntary, and all individuals were instructed they could withdraw from the research at any point. All 22 participating nursing students completed the Emotional and Social Competence Inventory (ESCI) tool and demographic surveys.

As noted in the previous study, (Wodwaski, 2018), the survey utilized to measure EI of the first-year nursing students was the on-line ESCI taken from Hay Group (2017). The ESCI tool is a competence centered test that encompasses an assortment of tasks aimed at measuring the four spheres of the Mayer and Salovey ability based EI measure model, designed for adults ages 17 and over. These domains include:

- Perceiving emotions: The aptitude for perceiving emotions in oneself and others as well as in objects, art, stories, music, and other stimuli.
- Facilitating thought: The adeptness to create, use, and handle emotions as necessary to communicate feelings or employ them in other cognitive processes.
- Understanding emotions: The capacity to recognize emotional information, to identify how emotions combine and progress through relationship transitions, and to value the emotional implications.
- Managing emotions: The capability to be exposed to emotional states, and to transform them in oneself and others so as to support compassion (Mayer & Salovey, 1993).

The 68 item ESCI, administered electronically by Hay Group, takes approximately 30-45 min to complete. The total EI standard score for each of the four branch standard scores as defined by Hay Group are scored against a frequency range. Scores indicate how characteristic a behavior is for the participant. Individuals were asked to complete the EI 68 item survey on a five-point scale ranging as follows: Never, Rarely, Sometimes, Often, Consistently. Each individuals’ responses are weighted equally. Scores are averaged across the relevant peers.
The research investigation is quantitative in nature. All nursing students completed a baseline EI assessment along with weekly class activities.

- In the first week, participants were advised to implement ‘I statements’ that produced a ‘mood check,’ which assisted the students in the development of increased attentiveness to their emotions and the influence of their emotions on others.
- During week two, the nursing students were introduced to a short, emotionally impacted client vignette and were guided to record their reactions and freely communicate their reflections on the scenario.
- Week three and four embraced watching short-lived video clips revealing the intricacies of cultural communication, followed by a quick journaling session. This activity confronts the students' biases and may assist them with a better understanding of their behavior and mindset. By encouraging the students to view life from another person’s perspective, they learn conflict management and consider approaches that encourage and potentially generate desired reactions in others.
- During week five, the students were provided a concise account of a critically hospitalized patient, followed by a fictional sequence scenario that consisted of events based on assumptions used to estimate the effects of their actions. For instance, when implementing patient care at the end of life, it is vital to understand the patient’s religion and culture in order to an approach that is culturally sensitive, and thus to support and enrich the patient’s religious well-being during death. This taught students to explore the word choices that they made during the scenario and thus inhibit them from bringing their own religious beliefs into their interactions with patients, thereby offering supportive care that is compassionate in nature.
- In the last week, students were encouraged to role-play with a peer, allowing them to foster problem solving and decision making, based on actions. The goal was to nurture empathy and cultivate an understanding of what others are undergoing. By listening with their ears of the other person, seeing with the eyes of others, and feeling the emotions the person may feel, the students may have the ability to communicate effectively becomes profoundly better and the feelings of connections with others begins to resonate.

Statistical Analysis
SPSS® version 18 was utilized to analyze the data. The data collected was rendered to the following statistical analysis using a simple regression analysis.

Results
The previous article titled The Influence of Caring and Emotional Intelligence among First-year Baccalaureate Nursing Students (Wodwaski, 2018) explored emotional intelligence (EI) among first-year baccalaureate nursing students in an academic setting. Nursing students’ EI was assessed using the ESCI twelve scale survey. The individuals were asked to participate voluntarily. A convenient sample of twenty-two first-year nursing students participated in this study. First-year nursing students’ EI was appraised as part of the initial course orientation. The Cronbach’s Alpha Reliability for the twelve scales ESCI inventory ranged from 0.74 to 0.87 (Hay Group, 2017). All individuals completed the EI survey during the initial classroom instruction. The first-semester nursing education set of classes and laboratory experiences comprised the study environment.

Outcomes
In the previous study, all twelve comparisons had p-values greater than 0.05, indicating that there were no significant changes in EI scores from pre-intervention to post-intervention.
All F ratios for the univariate analysis of variance were less than the critical values and additionally had no p values > 0.05 on the twelve EI competency scales. To further investigate the results, a Snedecor and Cochran test were additionally computed to determine if there were any outliers within the group (Wilcox, 2015). A summary of all hypothesis test for the equality of group averages is presented in Table 1.

Table 1. Summary of Modified F ratio for Dependent Variances
For Snedecor & Cochran Test of Equality of Dependent Variances

<table>
<thead>
<tr>
<th>EI Scale</th>
<th>rDS</th>
<th>Pearson Correlation</th>
<th>Df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESC12ACH (Achievement Orientation)</td>
<td>0.302</td>
<td>0.279</td>
<td>20</td>
<td>0.172</td>
</tr>
<tr>
<td>ESC12ADA (Adaptability)</td>
<td>0.345</td>
<td>0.582</td>
<td>20</td>
<td>0.116</td>
</tr>
<tr>
<td>ESC12CM (Conflict Management)</td>
<td>0.032</td>
<td>0.691</td>
<td>20</td>
<td>0.886</td>
</tr>
<tr>
<td>ESC12CMT (Coach and Mentor)</td>
<td>0.243</td>
<td>0.603</td>
<td>20</td>
<td>0.277</td>
</tr>
<tr>
<td>ESC12EMP (Empathy)</td>
<td>0.237</td>
<td>0.468</td>
<td>20</td>
<td>0.286</td>
</tr>
<tr>
<td>ESC12ESA (Emotional Self-Awareness)</td>
<td>0.031</td>
<td>0.343</td>
<td>20</td>
<td>0.891</td>
</tr>
<tr>
<td>ESC12ESC (Emotional Self-Control)</td>
<td>0.187</td>
<td>0.609</td>
<td>20</td>
<td>0.405</td>
</tr>
<tr>
<td>ESC12IL (Inspirational Leadership)</td>
<td>0.131</td>
<td>0.533</td>
<td>20</td>
<td>0.954</td>
</tr>
<tr>
<td>ESC12INF (Influence)</td>
<td>0.288</td>
<td>0.742</td>
<td>20</td>
<td>0.193</td>
</tr>
<tr>
<td>ESC12OA (Organizational Awareness)</td>
<td>0.184</td>
<td>0.545</td>
<td>20</td>
<td>0.413</td>
</tr>
<tr>
<td>ESC12PO (Positive Outlook)</td>
<td>0.184</td>
<td>0.673</td>
<td>20</td>
<td>0.413</td>
</tr>
<tr>
<td>ESC12TW (Teamwork)</td>
<td>0.229</td>
<td>0.692</td>
<td>20</td>
<td>0.305</td>
</tr>
</tbody>
</table>

Relationship between healthcare experience and EI

To provide greater insight into what is most likely a complex relationship between previous healthcare experience and nursing students’ EI, a simple linear regression was performed to address if there was a relationship between the first-year nursing students twelve EI scales and healthcare experience. A significant regression equation was found ($F(1,20) = 1.239146$, $p < .001$), with an $R^2$ of 0.058343. The difference in EI score between Pre- and Post-test was used as the response and years of healthcare experience were used as the predictor. Significant relationships were uncovered for ESC12ESC and ESC12PO. A summary of the RSquare, F ratio, and Significance values are presented in Table 2.

Table 2. Summary of Rsquare, F ratio, and Significance values

<table>
<thead>
<tr>
<th>EI Scale</th>
<th>Rsquare</th>
<th>$F_{1,20}$</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESC12ACH (Achievement Orientation)</td>
<td>0.038</td>
<td>0.794</td>
<td>0.383</td>
</tr>
<tr>
<td>ESC12ADA (Adaptability)</td>
<td>0.036</td>
<td>0.740</td>
<td>0.399</td>
</tr>
<tr>
<td>ESC12CM (Conflict Management)</td>
<td>0.022</td>
<td>0.456</td>
<td>0.507</td>
</tr>
<tr>
<td>ESC12CMT (Coach and Mentor)</td>
<td>0.141</td>
<td>3.280</td>
<td>0.085</td>
</tr>
<tr>
<td>ESC12EMP (Empathy)</td>
<td>0.129</td>
<td>2.956</td>
<td>1.101</td>
</tr>
<tr>
<td>ESC12ESA (Emotional Self-Awareness)</td>
<td>0.148</td>
<td>3.493</td>
<td>0.076</td>
</tr>
<tr>
<td>ESC12ESC (Emotional Self-Control)</td>
<td>0.276</td>
<td>7.619</td>
<td>0.012</td>
</tr>
<tr>
<td>ESC12IL (Inspirational Leadership)</td>
<td>0.121</td>
<td>2.759</td>
<td>0.112</td>
</tr>
<tr>
<td>ESC12INF (Influence)</td>
<td>0.093</td>
<td>2.053</td>
<td>0.167</td>
</tr>
<tr>
<td>ESC12OA (Organizational Awareness)</td>
<td>0.029</td>
<td>0.609</td>
<td>0.444</td>
</tr>
<tr>
<td>ESC12PO (Positive Outlook)</td>
<td>0.268</td>
<td>7.321</td>
<td>0.014</td>
</tr>
<tr>
<td>ESC12TW (Teamwork)</td>
<td>0.065</td>
<td>1.387</td>
<td>0.253</td>
</tr>
</tbody>
</table>
The relationship between EI Emotional Self-Control (ESC12ESC) and years of healthcare experience is presented in Figure 1. The negative relationship suggests that participants with greater years of healthcare experience had decreased levels of EI after experiencing the study intervention.

**Figure 1. Relationship between EI Emotional Self-Control (ESC12ESC) and years of healthcare experience**

![Graph showing the relationship between ESC12ESC and years of healthcare experience](image)

The relationship between EI Positive Outlook (ESC12PO) and years of healthcare experience was illustrated in Figure 2. This relationship showed participants with higher levels of healthcare experience had decreased EI measurements after experiencing the study intervention.

**Figure 2. Relationship between Emotional Intelligence Positive Outlook Scale and Years of Healthcare experience**

![Graph showing the relationship between ESC12PO and years of healthcare experience](image)

The comparison between years of healthcare experience and EI measured on ESC12ESC, and ESC12PO presented interesting relationships. It seems the treatment used in this study, in the first half of nursing student’s first semester of formal education, may have deteriorated the measured EI of participants with higher levels of healthcare experience. Although this regression might be
partially as a result of a ‘settling in’ phenomenon. In other words, with a transformation from perfectionism to practicality, nursing students’ empathy could likewise be exhibiting an adaptive reaction to new obligations and an intensifying course load (Williams et al. 2014). In addition, empathy that is being processed through self-observation as it is being expressed in a learning situation may be diminished or impaired. That is, when students are thinking about, analyzing and critiquing their empathy, their cognitive focus may distract or distance them from their empathetic awareness’s.

**Discussion**

The quantitative survey in the initial article (Wodwaski, 2018) aimed to appraise the impact of empathy in the educational environment on the growth of the nursing student’s emotional intelligence (EI). EI is an attribute considered advantageous by health care organizations. On the first day of nursing school, the students were asked to complete the EI survey before the educational course began, and again six weeks after. The ESCI survey tool was used to evaluate the twelve competencies of EI under the four spheres involving social forethought, interpersonal; connections, one’s consciousness, and personal care. The comparison of between years of healthcare experience and EI measured on the scale ESC12ESC, and ESC12PO presented an interesting relationship. It seems that nursing student’s first semester of formal education may have deteriorated the measured EI with participants who have higher levels of healthcare experience. This decline may be attributed to transition from perfection to practicality (Shanta & Gargiulo, 2014).

Based on the results of the linear regression analysis, decreasing by 0.276 and 0.268 R squares between emotional intelligence and previous healthcare experience appears to indicate that the contribution of emotional intelligence to previous healthcare experience is very low. This is consistent with the manova results of the previous study showing no significant relationship between emotional intelligence and education. The results calculated an F ratio of 1.111 with 12 and 31 degrees of freedom and a p-value of 0.386 (Wodwaski, 2018).

These findings demonstrate that first year nursing student’s previous healthcare experience cannot be used as a predictor for improving students’ EI competencies. Interpretation of EI results and previous healthcare experience indicate that increased EI is not necessarily supported by previous healthcare experience. What is important to note is that nurses are trained to care, and frequently consider themselves as unselfish, compassionate human beings, regardless of previous healthcare experience. Even recognizing that they are angry with a client might be challenging. If professional nurses do not utilize EI competencies, the consequences for client care may be severe. For instance, if irritation is not acknowledged, analyzed, comprehended, and coped with, then unrevealed, unmanaged resentment with clients may unconsciously generate infrequent rounding, delayed medication administration, and even further diminish the sporadic emotional and physical care that are possible in the nurses’ hectic schedules (Warnock, 2014). In these instances, client safety is at risk for being jeopardized the instant a nurse is inept at identifying and managing anger (Rankin, 2013).

Within healthcare, there is a need to provide healing and caring that enlist emotions to create awareness, enhance relationships, improve decision-making, and drive organizational vitality. The power of EI, particularly when combined with client-centered care, can be the catalyst to creating an environment that is peaceful and caring, regardless of previous healthcare experience.

**Limitations**

One of the limitations of the present study was the small sample size (n=22), which was due to the convenient sample of first-year nursing students enrolled in their first clinical course in the baccalaureate institution faculty had access to the students in that institution. Moreover, there were likely a countless multitude of concurrent experiences that transpired during the study period. Some of these may have contributed positively to student’s EI while others may have had a
negative impact. There was no control of these influences during the study, and some students may have had a greater or lesser number of such experiences.

Further, the sampling method was a convenience sample that was not randomly selected. Lastly, the student’s demographics were very homogenous: 95.4% were female and 18 to 21 years of age. Among the 22 participants, seven individuals (31.8%) had previous healthcare experience, while 15 individuals (68.1%) had no previous healthcare experience.

**Recommendations for Future Research**

Though there continue to be numerous inquiries on EI, there remains a scarcity of studies that have focused on nursing students’ EI and previous healthcare experiences as they matriculate. A recommendation for future research is to longitudinally study the cohort as they progress through the baccalaureate nursing program. This provides an opportunity to analyze the twelve EI scales during the end of each clinical rotation to identify if certain courses increase the students’ EI, relevant to discussions regarding baccalaureate nursing education.

Despite great advances in the understanding of EI, some nursing programs may not effectively enhance the students’ EI. Indeed, there is a rarity of research on this subject. It is essential to not only create supplementary inquiries, but likewise, to understand how nursing educators could instruct students on the competencies that strengthen EI. Fundamentally, it is vital to demonstrate the quality outcomes of the educational programs and the care that the students will deliver during their educational programs and throughout their subsequent careers. In considering this, education goes beyond the theoretical caring concepts. The knowledge will empower student nurses (soon to be professionals) to care holistically for the clients in their roles and will directly affect patient outcomes.

**Implications for Practice**

Overall implications of the findings for both education and practice must be viewed with caution. EI should continue in nursing education and be addressed by curricula planning efforts. Jenkins (2006) suggested concentrating efforts into increasing EI competence in the faculty which could potentially result in increasing all students’ development of EI. Vandervoort (2006) states that faculty with high EI may be more likely to be nurturing and thus demonstrate and develop compassionate caring in students. Considering the fact that all student nurses could benefit from an increased emotional competence level, cultivation of an environment that fosters EI development would have a positive impact upon all sectors within the healthcare system.

**Conclusion**

Compassionate client-centered care is fundamental to nursing (Alotaibi, Paliadelis & Valenzuela, 2016). Studies in nursing have always revolved around the quality of health care and efficient health care delivery. Without client-centered care, it is impossible to achieve these objectives. Even though EI can play major roles in achieving client-centered care, these attributes are not the only factors. The antecedents of client-centered care continue to attract more researchers as there is more evidence that reveals the absence of EI may harbor quality outcomes.

This study provided greater insight into what is most likely a complex relationship between previous healthcare experience and nursing students’ EI. The investigation has also reiterated the need for EI in the nursing curricula and supports Watson’s Theory of Human Caring as a foundational framework. Without having the ability to generalize EI among baccalaureate nursing students, the academic arena should remain focused on knowledge that has a commitment to compassionate patient care. This may enable the students to engage in an emotionally intelligent nurse-patient relationship as described by Watson. Additionally, future nursing curricula can enhance the growth and development of EI in the students with approaches that can be incorporated into higher education, in particular to foster perceiving emotions, use of emotions in facilitating thoughts, understanding emotions, and managing emotions.
Acknowledgements
This work required no funding and therefore has no funding disclosures/acknowledgements.
The author declares no conflicts of interest.

References

**Nadine Wodwaski, DNP, MSN-ed, RN, ACNS** is a registered nurse/clinical nurse specialist. She has had the pleasure of caring for clients in the community and acute care setting. She has practiced in emergency, maternal child, med/surg, and the cardiac catheterization lab. As an advanced practice nurse, she strives to improve healthcare through evidence-based practice at the individual patient and systems levels. As an academician, she has elected to focus on caring behaviors and emotional intelligence in her research. Promoting expressive caring is a worthy and even an important aim, achievable by focusing on nursing students’ emotional intelligence with their caring behaviors.

**Contact:**
Nadine Wodwaski, DNP, MSN-ed, RN, ACNS
4001 W. McNichols Rd
Detroit, Mi. 48221
wodwasnk@udmercy.edu
248-719-8165

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