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Emotional Intelligence and Positive Mental Health Among Nurses: A Replication Study

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Abstract

Background: Emotional intelligence and positive mental health have been identified as protective mechanisms for nurses.

Aim: This study aims to explore the relationship between emotional intelligence and positive mental health among nurses in an acute care setting and to compare these results with prior research to assess the impact of the coronavirus disease 2019 (COVID-19) pandemic.

Methods: Survey data were electronically collected 20 months post-declaration of COVID-19 as a pandemic. Participants were volunteer nurses employed during the pandemic. Study data included self-disclosed demographic information and responses on the Emotional Intelligence Assessment Scale and the Positive Mental Health Scale. Subgroups based on age, level of education, and years of experience were developed to examine their effects on the results. Descriptive statistical analyses were performed on all demographic data, including means, ranges, percentages, and standard deviations.

Results: Emotional intelligence was reported as medium or high among all participants and varied slightly among the study subgroups. Positive mental health was also ranked medium or high by all participants, though the percentage of participants rating their positive mental health as high was lower compared to their emotional intelligence; only 31.25% of those with less than five years of experience rated their positive mental health as high.

Conclusion: Emotional health is consistently present among nurses, regardless of age, level of education, or years of experience. Positive mental health, while present, was reported to be less robust. If there is indeed a positive relationship between emotional intelligence and positive mental health, these data suggest that a population could benefit from targeted emotional support specific to their career.

Keywords: Coronavirus disease 2019 (covid-19), emotional intelligence, mental health, nurses, survey

Introduction

The presence of emotional intelligence (EI)[1] has been identified as having a protective influence against anxiety, stress, and depression.[2] The World Health Organization[3] (WHO) has shifted its definition of mental health from merely the absence of mental illnesses to "a state of well-being in which individuals recognize their own abilities, cope with the normal stresses of life, work productively and fruitfully, and are able to make contributions to their community". (p. 1) Consequently, individuals in good mental health may experience sadness, illness, anger, or unhappiness at various points in their lives.[4] Cejudo et al[2] suggest that nurses with high emotional intelligence are better equipped to reduce work-related emotional distress. Furthermore, these two concepts have been linked, with data from Ordu et al[5] demonstrating a positive relationship between the two concepts among nurses providing care in hospital settings.

Emotional Intelligence (EI) first appeared in research literature in 1995 and is defined as the possession of skills and characteristics essential for effective leadership performance.[6] EI has been identified as a factor that enhances job performance, increases job satisfaction, and reduces burnout.[7] Results of this systematic review,[7] although not specifically focused on healthcare organizations, concluded that when leaders exhibit high levels of EI, the organizational culture is characterized by high-level performance and exceptional decision-making capabilities. Thus, EI involves the ability to perceive, control, and assess one's emotions. Mayer et al[8] further define the concept as "the ability to

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monitor one's own and others' emotions, to differentiate among different various emotions and label them accurately, and to use emotional information to guide thinking and behavior" (p. 198).

Focusing specifically on nurses, given their distinct clinical skills, responsibilities, job demands, and workplace settings, Siakia et al[9] suggest that EI is "one of the most crucial tools available to nurses for enhancing their psychological well-being" (p.37). Survey research involving 1,601 Spanish nurses who consented to participate identified individual and descriptive variables that enhance emotional intelligence.[10] Cross-sectional analyses of these variables showed that EI factors positively correlate with overall self-esteem. Mood was identified as the strongest predictor, while general self-efficacy diminished as experience increased. Data from a quantitative, descriptive, cross-sectional study[11] determined that high levels of EI, specifically for nurses providing care in intensive care units (ICUs), help them recognize, assess, and interpret emotional meanings. These skills enhance job performance and help manage the emotional and physical demands of the profession.[12] In developing a hypothetical model verifying the relationship between psychological well-being and EI, Lee and Sim[13] identified a positive correlation between high levels of EI and mental health, specifically among nurses employed at a general hospital.

While the specific constructs within emotional intelligence vary throughout the literature, along with differing models and assessment tools, generally these can be categorized as capability, trait,[14] or mixed models.[15] The focus of this study is the ability of the nurse to use emotional intelligence to guide thinking and behavior. Thus, the capability model was selected for this study.

Since its initial conception as freedom from mental illnesses, positive mental health has been described as having certain mental attributes. These have been identified by Huppert and So[16] as specific mental skills, habits, and capacities. These authors posit that the ability to enjoy positive mental health might depend on whether one is calm and emotionally stable, able to concentrate, enjoys constructive relationships with others, and takes pleasure in the small things in life. Keller[17] examines the differences between mental health and well-being. While this is beyond the scope of this article, Keller agrees that there is a strong interrelationship between the two terms, although they should not be used interchangeably. Mental health, as a condition of the mind, is not limited to feelings, emotions, desires, addictions, drives, motives, neuroses, fears, and ambitions. According to Keller,[17] if something does not concern the mind, it does not concern mental health. We differentiate this from well-being to avoid the need to include one's economic or cultural environment.[18] Within this study, the intent is to assess one's positive mental status, or their ability to mitigate the clinical scenario; thus, well-being is not included in the focus.

Aim

There were two aims for this study. The first was to explore the relationship between emotional intelligence and positive mental health among nurses employed in a healthcare organization that provides inpatient and outpatient care. These data were obtained during the fall of 2022, reflecting the post-COVID-19 pandemic scenario; participants include nurses who provided health care during the pandemic and remain employed at the study facility.

The second aim was to replicate the work done by Ordu et al[5] Their data were collected in the fall of 2019, prior to the onset of the coronavirus disease 2019 (COVID-19) pandemic and within a different geographical setting. Together these studies explore the effect COVID-19 may have had on the emotional intelligence of nurses and their positive mental health.

Materials and Methods

Study Design

Using a descriptive study design, study data consisted of self-disclosed demographic data and responses to the two study tools. All study data were collected using a web-based format and included no personal identifying information. The study underwent administrative review by the Institutional Review Committee that oversees research at the study site. Study approval protocol number 082422RICEX was received, indicating the study activities met exempt status and consent was implied upon submission of study materials.

Sample of the Study

Data maintained by the Human Resource Department at the study site identified 932 potential participants. All potential participants received the study invitational email. Once the study site was accessed, two items assessed inclusion criteria (job classification and job duties). Those not meeting the inclusion criteria were thanked for their time, but access to the study tool was denied. It is not known how many potential participants were denied access based on the inclusion criteria. The study's power was determined using post-hoc techniques. Two measurement tools were used for data collection, with demographic self-disclosure used only for the purpose of describing the study population. As calculated by G*power version 3.1.9.7, a sample size of 132 was necessary to identify, with a 0.95 power, a medium effect size (0.03), with a 0.05 margin of error.[19] The required sample size was obtained with 142 participants.

Data Collection Tools

Demographic Data Form

Specific demographic data were requested from each participant. The demographic responses were analyzed to describe the study population and to develop study subgroups. There were five demographic items, allowing each participant to self-disclose their age bracket, gender, level of education, shift work, and years of experience.

Emotional Intelligence Assessment Scale

Framed by the emotional intelligence model developed by Salovey and Mayer,[1] Schutte et al[20] developed a 33-item, six-point Likert-response survey. Potential responses range from Strongly Disagree (1) to Strongly Agree (6), with no neutral response option. There are three items that are reversed scores. Once reverse scoring is accomplished, the responses are summed to determine the level of emotional intelligence. Scores are summed and higher scores correlate to higher emotional intelligence.[20] Potential scores may range from 33 to 198.

Initial psychometric testing of the Emotional Intelligence Assessment Scale by Schutte et al[20] identified four factors, with items loading at 0.40 or above. The first factor, which included all 33 items, had an eigenvalue of 10.79. The remaining three factors also had items loading at 0.40 or above. Each of the 33 items identified in the first factor is included in the scale. Reliability, calculated as a Cronbach's alpha, was 0.90 when administered to 346 individuals recruited from various settings in urban southeastern United States.

The scale has a reliability grade level of 5.68, as calculated by the Flesch-Kincaid method.

Positive Mental Health Scale

This nine-item Likert response scale measures positive mental health as a unidimensional concept.[21] Perceiving mental health as a holistic concept, rather than well-being, aligns with the focus of this study. The format of each item is person-centered; the use of 'I' guides the participant toward responding personally, avoiding social desirability and potential Hawthorn effects. Potential responses range from Do Not Agree (0) to Agree (3), with no neutral response available. Positive Mental Health scores are summed, with higher scores indicating a higher degree of positive mental health. The range for summed scores on this scale is between 0 and 27.

The psychometric properties of the Positive Mental Health Scale were determined by a series of six studies,[21] with data from various populations obtained longitudinally. The results of these studies confirm that the scale measures a unidimensional concept. Initial reliability, estimated by Cronbach's alpha, was 0.93 for all groups and 0.91 when retested. Further analyses determined that the scale demonstrated internal consistency, good retest reliability, scalar invariance across samples and over time, good convergent and discriminant validity, as well as sensitivity to therapeutic change.

Data Collection

A study invitational email described the purpose, study activities, and estimated time associated with participation. Embedded in this email was a link to the web-based study survey. Study consent was implied upon submission of a completed survey. Data collection encompassed four weeks (mid-October through mid-November 2022), with a reminder email sent halfway through the data collection timeframe. Of the 162 participants who accessed the study survey, 142 provided study data, resulting in an 87.6% completion rate. Study participation averaged 16 minutes.

Data Analysis

All data were transferred into a study-specific SPSS, version 28.0 file.[22] Once checked for accuracy, the web-based study site was closed. Descriptive statistical analyses were performed on all demographic data, including means, ranges, percentages, and standard deviations (SD). Likert responses on both study surveys were reformatted into numerical data, with the numbers corresponding to the descriptive response, and reverse-scored items were recalibrated. Analyses determined that there were 0.0039% missing data. Rather than deleting these data cases, imputation techniques were used to substitute a calculated mean for the missing data.[23] Frequency techniques were used to compare scores on the two study measurement tools to demographic variables.

Ethical Aspects of the Study

Permission to use the Emotional Intelligence Assessment Survey[21] was provided through information available in the reference. Permission to use the Positive Mental Health Survey was available through open access, with no permission required.[20] Both surveys have citation and reference requirements, which have been adhered to in this article. Permission to conduct the study was granted by the North Kansas City Hospital Review Committee at the study site, along with the determination that the activity met exempt study status, as defined by 45 C.F.R. 46.101(b)(2) of the Common Rule.[24] Information within the study invitational email explained that (1) participation was voluntary, with no employment-related consequences for those who chose not to participate, and (2) if participants wished to cease participation while completing any of the surveys, they could do so by deleting the data and closing the website. The study principal investigator's contact information was provided in the invitation email for those who desired personal communication.

Results

Demographically, the study population was consistently distributed between the age groups of 25-35 and 56-65 years and was primarily female (93.1%). These participants are employed as registered nurses, have a bachelor's degree in nursing, and report more than 20 years of nursing experience (Table 1).

Emotional Intelligence Assessment Survey

The items titled "I like to share my emotions with others" (mean = 3.78), "When I feel a change in emotions, I tend to come up with new ideas" (mean = 3.94), and "When another person tells me about an important event in his or her life, I almost feel as though I have experienced the event myself" (mean = 3.95) received the lowest scores, each with an SD of less than 1. The items "I compliment others when they have done something well" (mean = 5.41) and "Some of the major events in my life have led me to re-evaluate what is important and not important" (mean = 5.28) received the highest mean scores and also had an SD of less than 1. Summed scores for the total study population ranged from 107 to 194, with a mean of 154.58 (SD = 17.593) (Table 2).

Positive Mental Health Scale

Items titled "I am in good physical and emotional condition" (mean = 2.10) and "I am a calm, balanced human being" (mean = 2.15) received the lowest scores, with SDs below 1. The item "I enjoy my life" (mean = 2.53) received the highest score, with an SD of 0.61, which was the lowest SD. Summed scores from the entire study population ranged from 8 to 27, with a mean of 20.78 (SD = 4.972) (Table 2).

While no participant self-reported a low score for either emotional intelligence or positive mental health, these data demonstrate some variance. There appears to be a greater proportion of participants (88.02%) with a high degree of emotional intelligence, while slightly more than half of the study population (55.63%) described themselves as having a high level of positive mental health. Self-describing a medium level of positive mental health was reported by slightly less than half of the study population (44.36%), yet just over 10% of the study population (11.97%) described their emotional intelligence as medium, or average.

Age as a Variable

Participants who described their age as "under 25" (n = 3) were incorporated into the 25-35 age category, and the individual (n=1) who reported their age as over 65 was included in the 56-65 age category. Responses from the individual who denoted that they "prefer not to answer" were included in the general analyses but excluded from this sub-group analysis (Table 3).

The results, when summarized by age bracket, indicate that all categories report a high level of emotional intelligence. There is little variance in high scores: 85.29% for those between the ages of 25-35

Table 1. Demographic Descriptive Statistics

	n	%
Age, years		
Under 25	3	2.1
25-35	31	21.5
36-45	33	22.9
46-55	41	28.5
56-65	34	23.6
Over 65	1	0.7
Prefer not to respond	1	0.7
Gender		
Female	134	93.1
Male	6	4.2
Prefer not to disclose	3	2.1
Job Classification		
Licensed Practical Nurse (LPN)	15	10.4
Registered Nurse (RN)	123	85.4
Advanced Practice Nurse (ARNP, CRNA, etc.)	6	4.2
Level of Education		
Diploma	6	4.2
Associate Degree	34	23.6
Bachelor Degree	76	52.8
Master Degree	25	17.4
Doctorate Degree	1	0.7
Years of Experience		
Less than 1 Year	1	0.7
1-5 Years	15	10.4
6-10 Years	22	15.3
11-15 Years	22	15.3
16-20 Years	24	16.7
More than 20 Years	59	41

Table 2. Means and Rankings of Emotional Intelligence Assessment Scores (EIAS) and Positive Mental Health Scores (PMHS)

	Emotional Intelligence Assessment Scores	Positive Mental Health Scores
Range	107-194	8-27
Mean; SD	154.97 ± 17.45	20.778 ± 4.97
Low	0	0
Medium	17 (11.97%)	63 (44.36%)
High	125 (88.02%)	79 (55.63%)

Table 3. Comparison by Age of Nurses on the EIAS and PMHS

Age 25-35 (n=34)	Emotional Intelligence Assessment Scores	Positive Mental Health Scores
Range	107-185	12-27
Mean; SD	1511 ± 6.064	20.35 ± 4.618
Low	0	0
Medium	5 (14.70%)	17 (50%)
High	29 (85.29%)	17 (50%)
Age 36-45 (n=39)		
Range	121-194	8-27
Mean (SD)	154.90 ± 8.300	19.62 ± 5.802
Low	0	0
Medium	3 (7.69%)	21 (53.84%)
High	36 (92.30%)	18 (46.15%)
Age 46-55 (n=41)		
Range	116-194	8-27
Mean (SD)	156.80 ± 17.230	21.20 ± 5.144
Low	0	0
Medium	5 (12.19%)	16 (39.02%)
High	36 (87.80%)	25 (60.97%)
Age 56 and over (n=35)		
Range	112-190	11-27
Mean (SD)	155.91 ± 20.131	21.57 ± 4.591
Low	0	0
Medium	5 (14.28%)	14 (40%)
High	30 (85.71%)	21 (60%)

years, 92.30% for those between the ages of 36-45 years, 87.80% for those between the ages of 46-55 years, and 85.71% for those over the age of 56 years. Positive mental health results, while all within the medium or high scoring range, displayed some within-group variation. Those between the ages of 25-35 years were evenly divided between medium and high (50%), and those between the ages of 36-45 years had similar results (53.84% reporting medium scores, 46.15% reporting high scores). Differences emerged when analyzing the last two subgroups. There was a higher percentage of those between the ages of 46-55 (60.97%) and over age 56 who achieved high positive mental health scores. In summary, while all participants demonstrated a high level of emotional intelligence, approximately 10% of those older than 46 years of age reported a high level of positive mental health.

Level of Education as a Variable

The study sub-group developed based on level of education combined the categories of diploma and associate degree; data from the one participant who reported having a doctorate was included in the master's degree category. This approach avoided the need to delete

Table 4. Comparison by Level of Education of Nurses on the EIAS and PMHS

Diploma/Associate Degree (n=42)	Emotional Intelligence Score	Positive Mental Health Score
Range	112-187	8-27
Mean (SD)	153.29 ± 19.128	20.31 ± 5.303
Low	0	0
Medium	8 (19.04%)	21 (50%)
High	34 (80.95%)	21 (50%)
Bachelor Degree (n=76)		
Range	107-190	11-27
Mean (SD)	152.91 ± 17.171	20.66 ± 4.846
Low	0	0
Medium	9 (11.84%)	38 (50%)
High	67 (88.15%)	38 (50%)
Master Degree and Higher (n=26)		
Range	136-194	8-27
Mean (SD)	161.58 ± 14.954	21.88 ± 4.811
Low	0	0
Medium	0	6 (23.07%)
High	26 (100%)	20 (76.92%)

responses while ensuring confidentiality of participants. Responses from the single participant who declined to describe their years of experience were retained in the overall study population but excluded from the subgroup analyses (Table 4).

Analyzing the results based on the level of education identified one novel result. The emotional intelligence responses from those with either a diploma/associate degree or a bachelor's degree were similar (19.04% of those with a diploma or associates degree and 11.84% of those with a bachelor's degree reported a medium level of emotional intelligence; 80.95% of those with a diploma or associate degree and 88.15% of those with a bachelor's degree reported a high level of emotional intelligence). Each participant with a master's degree or higher reported a high level of emotional intelligence. Positive mental health scores were evenly split between medium and high for participants in both the diploma/associate degree and bachelor's degree subgroups. A greater number of participants with a master's degree or higher described having positive mental health (76.92%). While emotional intelligence varied slightly when viewing the responses by level of education, an advanced level of education did correlate to an increased prevalence of positive mental health.

Years of Experience as a Variable

With the exception of including the participant who reported less than one year of experience into the 1-5 year category, no other adaptations were made. Realigning that participant into the next category prevented the ability to link their response to a specific data set (Table 5).

Table 5. Comparison by Years of Experience of Nurses and the EIAS and PMHS

Less than 1-5 Years Experience (n=16)	Emotional Intelligence Assessment Score	Positive Mental Health Score
Range	126-168	12-26
Mean (SD)	147.75 ± 13.229	18.56 ± 3.898
Low	0	0
Medium	3 (18.75%)	11 (68.75%)
High	13 (81.25%)	5 (31.25%)
6-10 Years Experience (n=22)	**Emotional Intelligence Assessment Score**	**Positive Mental Health Score**
Range	128-185	12-27
Mean (SD)	154.18 ± 13.514	21.18 ± 4.272
Low	0	0
Medium	1 (4.54%)	9 (40.90%)
High	21 (95.45%)	13 (59.09%)
11-15 Years Experience (n=21)	**Emotional Intelligence Score**	**Positive Mental Health Score**
Range	107-177	8-27
Mean (SD)	155.10 ± 5.825	21.33 ± 5.825
Low	0	0
Medium	1 (4.76%)	7 (33.33%)
High	20 (95.23%)	14 (66.66%)
16-20 Years Experience (n=24)	**Emotional Intelligence Score**	**Positive Mental Health Score**
Range	121-190	11-27
Mean (SD)	153.92 ± 21.053	21.04 ± 5.835
Low	0	0
Medium	5 (20.83%)	11 (45.83%)
High	19 (79.16%)	13 (54.16%)
More than 20 Years Experience (n=59)	**Emotional Intelligence Score**	**Positive Mental Health Score**
Range	112-194	8-27
Mean (SD)	155.98 ± 18.761	22 ± 4.775
Low	0	0
Medium	9 (15.25%)	27 (45.76%)
High	50 (84.74%)	32 (54.23%)

The study's results, analyzed by years of experience, identified some interesting trends. Higher levels of emotional intelligence were reported by those with 6-10 years of experience (95.45%) and those with 11-15 years of experience (95.23%). Emotional intelligence scores then dropped to 79.16% among those with 16-20 years of experience and elevated slightly to 81.25% among those with 5 or fewer years of experience and 84.74% among those with more than 20 years of

experience. Thus, emotional intelligence was highest during the 6th to 15th year of experience. This represents a 14% increase from the initial 5 years of employment and then a decrease of 10-15% starting with the 16th year of employment.

Positive mental health scores were lowest among those with less experience (31.25%) and almost doubled to 59.09% during the 6th to 10th year of experience. The highest percentage of positive mental health scores was achieved by those with 11-15 years of experience (66.66%) and then decreased during the remainder of one's employment (54.16% for those with 16-20 years of experience and 54.23% for those with more than 20 years of experience).

Emotional intelligence appears to be a stable trait among nurses. High levels of positive mental health were not as apparent; those with 11-15 years of experience demonstrated the highest percentage of positive mental health scores, yet this was only two-thirds of the population (66.66%). The lowest levels of positive mental health were described by those with less than 5 years of experience (31.25%) and slightly more than half of the other study subgroup populations. Thus, while emotional intelligence persisted, the capability of achieving positive mental health varied with years of experience and never matched the high levels of emotional intelligence.

Discussion

Comparison of this study's results to the original study[5] identified areas of similarities and differences between the study populations. Demographically, there was a slight increase in the number of females: 89.1% in the original study[5] and 93.1% in the present study. The same is true when comparing the level of education. Ordu et al[5] reported that 49.8% of their population held a bachelor's degree, while 52.8% of those in the present study had the same level of education. Years of experience were slightly different, with 38.4% of the study population in the previous study[5] reporting 21 or more years of experience, and 41% of the participants in the present study reporting more than 20 years of experience. Within the years of experience section, 52.9% of the previous population were employed between 2-5 years, while 11.1% of the present study population reported the same length of employment. The mean age in the previous study[5] was 39.2 years, while 52.8% of the population in the present study reported an age above 46 years, making this an older population. In general, the study populations are similar, with age and length of employment in the present study increased.

Despite analytical differences between the two studies, the aim of each study was similar. Both sought to explore the relationship between emotional intelligence and positive mental health. Results from the previous study[5] determined that nurses obtained medium-level mean scores in emotional intelligence. This contrasts with the majority (88.02%) of nurses in the present study reporting high-level emotional intelligence scores.

Ordu and associates[5] found that positive mental health was reported by the nurses in their study to be above the medium level. This result was replicated in the present study, with 55.63% of the study population attaining a high level of positive mental health. These results led to a desire to determine if demographics have an effect.

While analytical differences prevent direct comparison between the two studies, there is clinical relevance in understanding how age, level of education, and years of experience impact emotional intelligence and positive mental health among nurses. The results of the present study identify several trends. The first is that, regardless of age, level of education, or years of experience, no participant reported a low level of emotional intelligence or positive mental health. This may reflect the rigorous education required to become a nurse, which is reinforced with experience.

Correlating emotional intelligence and positive mental health by age determined that the highest number (92.3%) of those between 36 and 45 years of age achieved high scores, a feat achieved by only 85.29% of those between the ages of 25 to 35 years. Comparing scores based on the level of education determined that both emotional intelligence and positive mental health scores were highest among those with a master's degree or higher. A high level of emotional intelligence was reported by all participants with a master's degree or higher, and 76.92% of this population reported a high positive mental health score. There was a slight difference in emotional intelligence scores for those with a diploma or associate degree (80.95), while 88.15% of those with a bachelor's degree obtained a high level of emotional intelligence. Positive mental health scores were evenly split between medium and high for those with a diploma, associates, or bachelor's degree. Analysis of scores by years of experience identified some unexplainable results. A high level of emotional intelligence was similar for those with 11 to 15 years of experience (95.23%) and those with 6 to 10 years of experience (95.45%). Positive mental health scores, by years of experience, varied. While those with 11 to 15 years of experience obtained the greatest percentage of high scores (66.66%), those with 6 to 10 years (59.09%), those with 16 to 20 years (54.16%), and those with more than 20 years (54.23%) obtained similar scores. Only 31.25% of those with less than 1 to 5 years of experience reported a high level of positive mental health. These results suggest that positive mental health is developed over time and initially has a weak relationship with emotional intelligence.

Limitations

The study, which obtains data from volunteer participants, has inherent limitations. These include the risk of obtaining socially desirable responses, which occur when participants respond positively. Other limitations are associated with data collection at one study site, which limits generalizability of the results. The healthcare landscape is constantly changing in response to COVID-19. Thus, these results reflect a timeframe when the pandemic has abated to an endemic state and in a geographical area where vaccines are readily available. Ongoing research and replication of this study are warranted. Finally, application or initiation of interventions based on these results should proceed with caution.

Conclusion

Emotional intelligence, as self-described by this study population, was generally high, with those educated at a master's degree level or higher reporting the highest levels of positive mental health. Positive mental health, among the entire study population, was described at medium or high levels. Within each subgroup, the percentage of responses indicating a high level of positive mental health were less than those indicating high levels of emotional intelligence. Thus, a direct correlation between the two concepts is not present. When comparing these results to those of Ordu and associates,[5] it seems reasonable to posit that the COVID-19 pandemic had a negative effect on the ability of nurses to maintain positive mental health.

Emotional intelligence, using the capability model, is inherent in the nurses who participated in this study. That may be a result of personal characteristics that lead one toward a nursing career or a consequence of the educational processes necessary to become a nurse. Positive mental health was present in all study participants, yet those with less than 5 years of experience reported the lowest levels of high scores. This population, regardless of age, may be at risk for adverse responses to the work environment. The COVID-19 pandemic challenged all healthcare providers physically and emotionally. The results of this study, when compared to the work of Ordu and associates,[5] document that effect. While educational forums and programs that provide emotional support should be developed and implemented, the impact of the COVID-19 pandemic on the positive mental health of nurses should be recognized.

Ethics Committee Approval: Study approval was secured from the North Kansas City Hospital Review Council at the study site (Protocol number: 082422RICEX, Date: 24.09.2022).

Informed Consent: Study consent was implied upon submission of a completed survey in compliance with exempt status, as defined by 45 C.F.R. 46.101(b)(2) of the Common Rule.

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