The Relationship Between Nurses' Emotional Intelligence Skills and Positive Mental Health

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Abstract

Background: Positive mental health and emotional intelligence skills are crucial factors likely to protect nurses' mental well-being.

Methods: This study was performed to identify the relationship between nurses' emotional intelligence skills and positive mental health. Designed as an analytical cross-sectional study, the research was conducted from September to December 2019 at a training and research hospital of a university located in the Aegean region of Turkey. The research population was composed of 750 nurses working actively at the aforementioned hospital while the research sample had 331 nurses selected from the population by using the simple random sampling method. The research data were collected with the Personal Information Form, the Emotional Intelligence Assessment Scale, and the Positive Mental Health Scale. Sociodemographic data were analyzed by using number and percentage distributions while the relationship between the two variables, namely emotional intelligence skills and positive mental health, was examined via Spearman's correlation analysis.

Results: Nurses had a mean age of 39.20 ± 8.32 years, and of all participant nurses, 89.1% were female, 49.8% held a bachelor's degree, 77% voluntarily selected the nursing profession, and 58.9% were satisfied with the nursing profession. Besides, the means of total scores obtained by nurses from the Emotional Intelligence Assessment Scale and the Positive Mental Health Scale were successively 145.22 ± 24.71 and 72.54 ± 15.17 points. Moreover, a strong negative relationship was identified between nurses' mean Emotional Intelligence Assessment Scale and Positive Mental Health Scale scores ($r = -0.61$; $P = .000$). Also, the mean of nurses' Emotional Intelligence Assessment Scale scores had moderately negative relationships with means of scores obtained by them from the Personal Satisfaction Sub-Scale ($r = -0.53$; $P = .000$), Autonomy Sub-Scale ($r = -0.55$; $P = .000$), Interpersonal Relationship Skills Sub-Scale ($r = -0.56$; $P = .000$), Problem-Solving and Self-Actualization Sub-Scale ($r = -0.44$; $P = .000$), and Self-Control Sub-Scale ($r = -0.40$; $P = .000$) of the Positive Mental Health Scale and a weak negative relationship with the mean of scores obtained by them from the Pro-Social Attitude Sub-Scale ($r = -0.34$; $P = .000$) of the Positive Mental Health Scale.

Conclusion: It was found that nurses had medium-level emotional intelligence skills and positive mental health above the medium level. Additionally, it was identified that there was a positive relationship between nurses' emotional intelligence skills and mental well-being.

Keywords: Nurse, emotional intelligence, mental health

Introduction

Emotional intelligence is a series of personal, emotional, and social competencies and skills that help an individual cope successfully with pressures and demands originating from the individual's environment.[1] These skills are composed of abilities that enable individuals to have self-awareness of their emotions; establish positive relationships; produce flexible, realistic, and effective solutions in challenging situations; and cope with problems by adapting to the environment.[1] Nurses are confronted with numerous problems such as negative work conditions, unsatisfactory emotional relations, tensions, and communication problems. Having emotional intelligence skills can be of significant help to nurses, who are responsible for providing holistic care to the patient or a healthy individual in a difficult situation, for the elimination of problems encountered in the work setting.[2] In previous studies, it is stated that having emotional intelligence skills affected the quality of patient care,[3-5] and by virtue of having emotional intelligence skills, nurses could cope with physical and emotional problems encountered by them

while providing nursing care, and also, emotional intelligence skills protected general well-being[4,5] and mental health.[2-4]

Other factors affecting the quality of care services offered by nurses to their patients are mental well-being, hope, optimism, flexibility, and effective communication skills.[7] Seligman systematically addressing these factors defined the concept of positive mental health for the first time as "a field of study that helps individuals hold on to life and take the life to a more positive point across the lifetime and presents data and findings on what is positive in life".[8] The positive mental health focuses on the human being's positive traits, not on weaknesses and pathology. It is interested in human being's positive traits such as the capacity to love, courage, abilities, understanding of justice, personal skills, temperateness, resilience, sensitivity, satisfaction, awareness, aesthetic, creativity, forgiveness, tolerance, wisdom, spirituality, hope, self-confidence, virtue, and gratitude.[8,9] It is known that these positive traits of nurses have positive effects on the creation of a supportive setting in the care service, the reduction of stigmatization and discrimination, and the improvement of mental health.[10] Also, in the relevant literature, it was asserted that nurses' emotional intelligence skills,[4] psychological resilience,[11,12] and sociotropy-autonomy personality characteristics[13] positively affected their stress-coping competencies, and their psychological resilience had effects on their hopes and self-efficacy skills[11] as well as their personal and professional responsibility perceptions.[12] Besides, it was identified that nurses who had creativity and a flexible thinking style found new solutions to crucial sources of stress, adapted to the new situation easily, and could successfully overcome difficult circumstances.[14] Moreover, in a study, it was discerned that nurses' physical and mental symptoms decreased, their participation in social activities increased, and nurses easily adapted to changes in life after participating in the "Mindfulness-Based Stress Reduction Training Program".[15] As per these findings, supposing that individuals' mental health-related positive competencies (courage, temperateness, resilience, sensitivity, awareness, creativity, tolerance, hope, self-confidence, virtue, and so on) had positive effects on their efforts to overcome problems encountered in life, it was considered that there would be a significant relationship between individuals' positive mental health characteristics and emotional intelligence skills. The review of the relevant literature indicated that, even though studies performed on mental health workers[16,17] and student nurses[18,19] identified that nurses had highly positive mental health, no study analyzed the relationship between the two aforementioned variables. In this context, to ensure that nurses can adapt to the current situation and fulfill professional nursing services in difficult work conditions, it is considered that it is important to find out whether emotional intelligence skills, which are a significant competence for nurses to cope effectively with encountered problems, are associated with their positive mental health characteristics. Departing from this point, this study examined whether nurses' emotional intelligence skills and positive mental health had a relationship. By virtue of this research, it is predicted that the relationship identified between emotional intelligence skills, which directly affect nurses' general well-being, and the positive mental health will guide the way for prospective studies to be performed in the future to highlight the factors associated with the positive mental health.

Aim

This research was conducted to identify the relationship between nurses' emotional intelligence skills and positive mental health. In this respect, the answer to the question, "How is the relationship between nurses' emotional intelligence skills and positive mental health?" was sought in the research.

Method

Designed as analytical cross-sectional research, this study was performed from September 2019 to December 2019 at all service units of a training and research hospital of a university located in the Aegean region of Turkey. The research population was composed of 750 nurses who worked actively at the above hospital. By using the formula for the calculation of the sample size for a known population,[20] the minimum sample size was identified as 254 nurses for the research. Considering the likely data losses during the research, 331 nurses who were selected by using the simple random sampling method and agreed to participate in the research were included in the research sample. The research data were collected with three measurement tools.

Personal Information Form: The form that was developed by researchers in light of the relevant literature[4,6,21] had 12 questions designed to identify nurses' socio-demographic characteristics (age, gender, marital status, status of having any child, education level, duration of service in the nursing profession, service unit, status of previously attending a training program about personal development).

Emotional Intelligence Assessment Scale: Hall (1999) developed this self-report scale to evaluate individuals' emotional intelligence skills, and Ergin (2000) performed the validity and reliability study for the scale in Turkish.[22] Designed as a six-point Likert-type scale, the Emotional Intelligence Assessment Scale (EIAS) has 30 items and five sub-scales. Its sub-scales are Emotional Self-Awareness (ESA) (items 1, 2, 4, 17, 19, and 25), Emotional Self-Regulation (ESR) (items 3, 7, 8, 10, 18, and 30), Self-Motivation (SM) (items 5, 6, 13, 14, 16, and 22), Empathy (E) (items 9, 11, 20, 21, 23, and 28), and Social Skills (SS) (items 12, 15, 24, 26, 27, and 29). The EIAS has no reverse-coded item. An EIAS score of 155 points or above is evaluated as having high-level emotional intelligence (quite strong), an EIAS score of 130-154 points is evaluated as having medium-level emotional intelligence (there is a little need for improvement), and an EIAS score of 129 points or below is evaluated as having low-level emotional intelligence (there is absolutely a need for improvement). Cronbach's α coefficient which was 0.84 for the original version of the EIAS[22] was calculated as 0.92 for the sample of the current research.

Positive Mental Health Scale (PMHS): Lluch (1999) developed this self-report scale to define the conceptual model of positive mental health and evaluate positive mental health,[16] and Teke and Baysan-Arabacı (2017) performed the validity and reliability study for the scale in Turkish.[21] Designed as a four-point Likert-type scale, the Positive Mental Health Scale (PMHS) has 39 items and six sub-scales. Its sub-scales are Personal Satisfaction (PS) (items 4, 6, 7, 12, 14, 31, 38, and 39), Pro-Social Attitude (PSA) (items 1, 3, 23, 25, and 37), Self-Control (SC) (items 2, 5, 21, 22, and 26), Autonomy (A) (items 10,13,19,33, and 34), Problem-Solving and Self-Actualization (PSSA) (items 5, 16, 17, 27, 28, 29, 32, 35, and 36), and Interpersonal Relationship Skills (IRS) (items 8, 9, 11, 18, 20, 24, and 30). The PMHS has both straight-coded and reverse-coded items, and items 1, 2, 3, 6, 7, 8, 9, 10, 12, 13, 14, 19, 24, 30, 31, 33, 34, 38, and 39 are reverse-coded. Minimum and maximum scores to be obtained from the PMHS are, respectively, 39 and 156 points. There is no cut-off point in the PMHS. In the evaluation of PMHS scores in the

current study, PMHS items were scored as follows: "always or almost always"—1 point; "often" −2 points, "sometimes" −3 points, "never or rarely" −4 points. In this respect, a low score obtained from the PMHS shows that the respondent has positive mental health. Cronbach's α coefficient of 0.89 for the original version of the PMHS[21] was calculated as 0.91 for the sample of the current research.

Data Collection

Before the research data were collected, the research aim was briefly explained to nurses in meetings held in person with them. Next, nurses agreeing to participate in the research filled in the Personal Information Form and the two measurement tools (EIAS and PMHS), and hence, the research data were collected.

Data Analysis

The research data were analyzed by using the Statistical Package for Social Science (SPSS) 22.0. Descriptive data collected in the study were evaluated by using descriptive statistical analysis alongside the calculation of means and percentages. As the research data were not normally distributed, correlations between mean EIAS and PMHS scores were examined with Spearman's correlation analysis, and statistically significant correlations were evaluated as per the statistical significance table prescribed by Şencan (2005) for correlations.[23]

Ethical Aspect of the Research

The permission to use the PMHS in the research was received via e-mail from the authors performing the validity and reliability study for the PMHS in Turkish. However, to use the EIAS in the research, no permission was received from any author because the EIAS, which was used also in numerous studies in a similar vein to the current study, was obtained from Turkey Measurement Tools Index, a public domain open to common use. Moreover, to conduct the research, the ethical endorsement was obtained from the Non-Invasive Clinical Trials Ethics Committee of a university hospital (Date: August 8, 2019, No: 342), and the permission was received from the Health Department of a province in Turkey (Decision No: 90953153-772.02). Besides, after nurses received the necessary information about the research, they were asked to consent in written format and verbally to participate in the study.

Results

Participant nurses had a mean age of 39.20 ± 8.32 years, and of all participant nurses, 89.1% were female, 49.8% held a bachelor's degree, 65.9% had children, 77% voluntarily selected the nursing profession, 58.9% were satisfied with the nursing profession, 36.9% served at internal medicine clinics, 70.7% worked as service nurses, 38.4% served in the nursing profession for 21 years or longer, 52.9% were serving for 2-5 years at the clinic where they worked at the time of this research, and also 13.5% attended a training program in the last 2 years (family counseling, communication, awareness—emotional expression, psychodrama, psychotherapy, anger and stress management, and so on) (Table 1).

Table 2 displays mean scores obtained by nurses from the EIAS, PMHS, and their sub-scales. The means of scores obtained by nurses from the EIAS and its Emotional Self-Awareness Sub-Scale, Emotional Self-Regulation Sub-Scale, Self-Motivation Sub-Scale, Empathy Sub-Scale, and Social Skills Sub-Scale were consecutively 145.22 ± 24.71, 28.10 ± 6.23, 29.20 ± 5.51, 29.22 ± 5.37, 29.27 ± 5.56,

and 29.42 ± 5.55 points, respectively (Table 2). Besides, the means of scores obtained by nurses from the PMHS and its Personal Satisfaction Sub-Scale, Problem-Solving and Self-Actualization Sub-Scale, Autonomy Sub-Scale, Interpersonal Relationship Skills Sub-Scale, Pro-Social Attitude Sub-Scale, and Self-Control Sub-Scale were successively 72.54 ± 15.17, 13.01 ± 3.97, 17.22 ± 4.57, 8.79 ± 2.67, 13.91 ± 3.12, 9.13 ± 2.44, and 10.44 ± 2.79 points, respectively (Table 2).

Moreover, in the research, it was discerned that there were statistically significant relationships between the means of scores obtained by nurses from the EIAS, PMHS, and their sub-scales. In this regard, first, it was found that there was a statistically significant strong negative relationship between nurses' mean EIAS and PMHS scores ($r = −0.61$; $P = .000$). Second, it was identified that the mean of nurses' EIAS scores had statistically significant moderately negative relationships with means of their PMHS Personal Satisfaction Sub-Scale scores ($r = −0.53$; $P = .000$), Autonomy Sub-Scale scores ($r = −0.55$; $P = .000$), Interpersonal Relationship Skills Sub-Scale scores ($r = −0.56$; $P = .000$), Problem-Solving and Self-Actualization Sub-Scale scores ($r = −0.44$; $P = .000$), and Self-Control Sub-Scale scores ($r = −0.40$; $P = .000$) and a statistically significant weak negative relationship with the mean of their PMHS Pro-Social Attitude Sub-Scale scores ($r = −0.34$; $P = .000$) (Table 3).

Third, it was discerned that the mean of nurses' EIAS Emotional Self-Awareness Sub-Scale scores had highly statistically significant moderately negative relationships with means of their PMHS scores ($r = −0.41$; $P = .000$) and PMHS Autonomy Sub-Scale scores ($r = −0.40$; $P = .000$), highly statistically significant weak negative relationships with means of their PMHS Personal Satisfaction Sub-Scale scores ($r = −0.38$; $P = .000$), Interpersonal Relationship Skills Sub-Scale scores ($r = −0.35$; $P = .000$), Problem-Solving and Self-Actualization Sub-Scale scores ($r = −0.30$; $P = .000$), and Emotional Self-Regulation Sub-Scale scores ($r = −0.26$; $P = .000$), and a highly statistically significant very weak negative relationship with the mean of their PMHS Pro-Social Attitude Sub-Scale scores ($r = −0.17$; $P = .000$) (Table 3).

Fourth, it was found that the mean of nurses' EIAS Emotional Self-Regulation Sub-Scale scores had highly statistically significant moderately negative relationships with means of their PMHS scores ($r = −0.53$; $P = .000$), PMHS Autonomy Sub-Scale scores ($r = −0.47$; $P = .000$), Personal Satisfaction Sub-Scale scores ($r = −0.45$; $P = .000$), and Interpersonal Relationship Skills Sub-Scale scores ($r = −0.49$; $P = .000$) and highly statistically significant weak negative relationships with means of their PMHS Problem-Solving and Self-Actualization Sub-Scale scores ($r = −0.39$; $P = .000$), Emotional Self-Regulation Sub-Scale scores ($r = −0.34$; $P = .000$), and Pro-Social Attitude Sub-Scale scores ($r = −0.34$; $P = .000$) (Table 3).

Fifth, it was identified that the mean of nurses' EIAS Self-Motivation Sub-Scale scores had highly statistically significant moderately negative relationships with means of their PMHS scores ($r = −0.40$; $P = .000$), PMHS Personal Satisfaction Sub-Scale scores ($r = −0.48$; $P = .000$), Self-Control Sub-Scale scores ($r = −0.41$; $P = .000$), Autonomy Sub-Scale scores ($r = −0.51$; $P = .000$), Problem-Solving and Self-Actualization Sub-Scale scores ($r = −0.43$; $P = .000$), and Interpersonal Relationship Skills Sub-scale scores ($r = −0.51$; $P = .000$) and a highly statistically significant weak negative relationship with the mean of their PMHS Pro-Social Attitude Sub-Scale scores ($r = −0.32$; $P = .001$) (Table 3).

Table 1. The Breakdown of Nurses by Socio-demographic and Professional Characteristics (N = 331)					
Characteristics	n	%	Characteristics	n	%
Mean age 39.20 ± 8.32 years					
Gender			**Service assignment**		
Female	295	89.1	Service nurse	234	70.7
Male	36	10.9	Charge nurse	21	6.3
Having any child			Other[a]	76	23.0
Yes	218	65.9	**Duration of service in the nursing profession**		
No	113	34.1	0-1 year	5	1.5
Education level			2-5 years	30	9.1
Health vocational high school	15	4.5	6-10 years	68	20.5
Associate degree	121	36.6	11-15 years	49	14.8
Bachelor's degree	165	49.8	16-20 years	52	15.7
Master's degree or PhD	30	9.1	21 years or above	127	38.4
Selecting the nursing profession voluntarily			**Duration of service in the current unit**		
Yes	255	77.0	0-1 year	63	19.0
No	76	23.0	2-5 years	175	52.9
Being satisfied with the nursing profession			6-10 years	74	22.4
Very satisfied	28	8.5	11-15 years	8	2.4
Satisfied	195	58.9	16-20 years	5	1.5
Neither satisfied nor dissatisfied	65	19.6	21 years or above	6	1.8
Not satisfied	30	9.1	**Attending a training program about emotional intelligence skills**		
Not satisfied at all	13	3.9	No	286	86.5
Service unit			Yes	45	13.5
Internal medicine	122	36.9	**Training program**		
Surgery	94	28.4	Psychotherapy	4	1.2
Intensive care unit	23	6.9	Psychodrama	10	3.0
Emergency service	11	3.3	Family counseling	3	0.9
Polyclinic	47	14.2	Awareness—emotional expression	22	6.6
Operation room	15	4.5	Effective communication	3	0.9
Other	19	5.7	Anger management	3	0.9
Total	331	100.0	**Total**	331	100.0

[a]Polyclinic nurse, operation room nurse, unit nurse, and so on.

Sixth, it was discerned that the mean of nurses' EIAS Empathy Sub-Scale scores had a highly statistically significant strong negative relationship with the mean of their PMHS scores ($r = -0.60$; $P = .000$), highly statistically significant moderately negative relationships with means of their PMHS Personal Satisfaction Sub-Scale scores ($r = -0.51$; $P = .000$), Autonomy Sub-Scale scores ($r = -0.54$; $P = .000$), Problem-Solving and Self-Actualization Sub-Scale scores ($r = -0.42$; $P = .000$), and Interpersonal Relationship Skills Sub-scale scores ($r = -0.57$; $P = .000$), and highly statistically significant weak negative relationships with means of their PMHS Self-Control Sub-Scale scores ($r = -0.36$; $P = .000$) and Pro-Social Attitude Sub-Scale scores ($r = -0.38$; $P = .001$) (Table 3).

Lastly, it was found that the mean of nurses' EIAS Social Skills Sub-Scale scores had highly statistically significant moderately

Table 2. Means of Nurses' EIAS and PMHS Scores (N = 331)

Scales and Sub-Scales		Mean ± SD	Obtained Minimum and Maximum Scores	Minimum and Maximum Scores that Can be Obtained	Median
Positive Mental Health Scale (PMHS)	Total PMHS	72.54 ± 15.17	42-111	39-156	97.5
	Personal Satisfaction Sub-Scale	13.01 ± 3.97	8-28	8-32	20.0
	Pro-Social Attitude Sub-Scale	9.13 ± 2.44	5-17	5-20	12.5
	Self-Control Sub-Scale	10.44 ± 2.79	5-18	5-20	12.5
	Autonomy Sub-Scale	8.79 ± 2.67	5-18	5-20	12.5
	Problem-Solving and Self-Actualization Sub-Scale	17.22 ± 4.57	9-33	9-36	22.5
	Interpersonal Relationship Skills Sub-Scale	13.91 ± 3.12	7-24	7-28	17.5
Emotional Intelligence Assessment Scale (EIAS)	Total EIAS	145.22 ± 24.71	36-180	30-180	105.0
	Emotional Self-Awareness Sub-Scale	28.10 ± 6.23	6-36	6-36	21.0
	Emotional Self-Regulation Sub-Scale	29.20 ± 5.51	7-36	6-36	21.0
	Self-Motivation Sub-Scale	29.22 ± 5.37	7-36	6-36	21.0
	Empathy Sub-Scale	29.27 ± 5.56	7-36	6-36	21.0
	Social Skills Sub-Scale	29.42 ± 5.55	7-36	6-36	21.0

Table 3. Analysis of the Relationship Between Means of Nurses' Emotional Intelligence Assessment Scale and Positive Mental Health Scale Scores (N = 331)

			Emotional Intelligence Assessment Scale (EIAS)					
	Scales and Sub-Scales		Total EIAS	Emotional Self-Awareness	Emotional Self-Regulation	Self-Motivation	Empathy	Social Skills
Positive Mental Health Scale (PMHS)	Total PMHS	r	−0.612	−0.409	−0.531	−0.573	−0.595	−0.555
		P	.000**	.000**	.000**	.000**	.000**	.000**
	Personal Satisfaction	r	−0.532	−0.383	−0.455	−0.477	−0.513	−0.463
		P	.000**	.000**	.000**	.000**	.000**	.000**
	Pro-social Attitude	r	−0.340	−0.175	−0.342	−0.317	−0.376	−0.345
		P	.000**	.000**	.000**	.000**	.000**	.000**
	Self-Control	r	−0.403	−0.265	−0.336	−0.408	−0.355	−0.342
		P	.000**	.000**	.000**	.000**	.000**	.000**
	Autonomy	r	−0.554	−0.399	−0.470	−0.514	−0.539	−0.475
		P	.000**	.000**	.000**	.000**	.000**	.000**
	Problem-Solving and Self-Actualization	r	−0.447	−0.296	−0.391	−0.429	−0.419	−0.414
		P	.000**	.000**	.000**	.000**	.000**	.000**
	Interpersonal Relationship Skills	r	−0.568	−0.352	−0.487	−0.507	−0.570	−0.544
		P	.000**	.000**	.000**	.000**	.000**	.000**

**p < .001

negative relationships with means of their PMHS scores ($r = -0.56$; $P = .000$), PMHS Personal Satisfaction Sub-Scale scores ($r = -0.46$; $P = .000$), Autonomy Sub-Scale scores ($r = -0.48$; $P = .000$), Problem-Solving and Self-Actualization Sub-Scale scores ($r = -0.41$; $P = .000$), and Interpersonal Relationship Skills Sub-scale scores ($r = -0.54$; $P = .000$) and highly statistically significant weak negative relationships with means of their PMHS Self-Control Sub-Scale scores ($r = -0.34$; $P = .000$) and Pro-Social Attitude Sub-Scale scores ($r = -0.35$; $P = .001$) (Table 3).

Discussion

In this study, which was performed to examine the relationship between positive mental health and emotional intelligence skills of nurses working at a university hospital in Turkey, it was found that nurses obtained medium-level mean scores from the EIAS and its sub-scales, and also they had social skills, empathy, self-motivation, emotional self-regulation, and emotional self-awareness skills, respectively (Table 2). Upon the review of the relevant literature, it is discerned that nurses had emotional intelligence skills above the medium level[24,25] and at the medium level[4,26,27]; however, nurses' emotional self-regulation, social,[26] and stress management skills[4,25] were in need of further development in comparison to other aspects of emotional intelligence skills. Also, in the meta-analysis conducted by Raghubir (2018), it is put forward that emotional intelligence skills such as *self-awareness, self-management*, *social awareness*, and *social skills/relationship management* had effects on professional nursing practices, and additionally, nurses' abilities to put their own emotions under control and understand patients' emotions were a significant factor affecting whether nurses provided professional services in meeting patients' physiological, emotional, and social needs.[28] Besides, in the study by Çolak, Okumuş, and Uğur (2017), it was identified that nurses' emotional intelligence skills directly affected their caregiving behaviors.[3] In this respect, it is obvious that developing the emotional intelligence skills of nurses, who are responsible for giving care to the patient in a difficult situation, is important. In the current study, as per means of scores obtained by nurses from the PMHS and its sub-scales, it was found that nurses had positive mental health above the medium level, and they obtained better scores from personal satisfaction and problem-solving and self-actualization sub-scales than they obtained from autonomy, interpersonal relationship skills, pro-social attitude, and self-control sub-scales (Table 2). In the relevant literature, studies performed by Picco et al (2017) in Spain and by Mantas Jiménez (2015) in Singapore with mental health workers showed that mental health workers had moderately positive mental health,[17,29] particularly mental health workers' characteristics related to autonomy and self-control were in need of further development,[17] and positive mental health affected the job satisfaction positively.[29] Besides, in the relevant literature, there are often studies conducted with nursing students. In the study performed by Sequeira et al (2016) with 2238 students in Spain, students stated that they had difficulty in establishing satisfactory interpersonal relationships in terms of positive mental health, had negative thoughts about the future, and felt insecure while making decisions.[19] In another study conducted by Sequeira et al (2016) with 2338 student nurses in Spain and Portugal, it was identified that students had highly positive mental health and students' pro-social attitudes were in need of further development.[18] Also, it is stated that nurses' characteristics related, in particular, to self-control, autonomy, and pro-social attitude affected positively the outcomes such as job burnout, job satisfaction, and performance by enabling nurses to cope with problems experienced by them with their patients and families, and also enhanced their welfare and commitment.[29] Besides, these elements that constitute positive mental health are characteristics that strengthen nurses and are required by the nursing profession.[3] Therefore, it is put forward that, to enhance health workers' welfare and mental well-being, the focus should be placed on their strengths.[29] However, in the current study, even if it was found that participant nurses had positive mental health above the medium level, it was discerned that nurses' characteristics related to, first, pro-social attitudes such as "being of help to others, that is, being altruistic," which is the primary function of the nursing profession based on the humanistic approach,[30] second, self-control, which is "one's ability to organize behaviors, emotions, and desires,"[29] third, autonomy, which is "one's freedom to make a decision and put it into practice,"[31] and fourth, interpersonal relationship skills were in need of further development. Thus, it is considered that identifying factors affecting nurses' characteristics related to pro-social attitude, self-control, autonomy, and interpersonal relationship skills and applying interventions in this regard are of importance.

Besides, in the current study, it was identified that there was a strong relationship between nurses' emotional intelligence skills and positive mental health ($P < .05$), and emotional intelligence skills affected mental well-being positively (Table 3). In studies performed with nurses, it is asserted that emotional intelligence skills are a significant element affecting whether nurses can switch to the proper psychological state, can look at life more optimistically, and feel happy[32] and enabling nurses to cope with the problem without feeling hopeless and losing self-control, especially in stressful situations, and provide effective care even in the most challenging periods.[2,33] In this context, it is an expected outcome that nurses' emotional intelligence skills will affect positive mental health, which is delineated as "the positive effect of feeling psychologically well".[18]

Moreover, in the current study, it was discerned that nurses' emotional intelligence skills such as *emotional self-awareness*, *emotional self-regulation*, *self-motivation*, *empathy*, and *social skills* moderately affected *personal satisfaction*, *autonomy*, *interpersonal relationship skills*, *self-control*, and *problem-solving and self-actualization* elements of the positive mental health ($P < .05$). *Personal satisfaction* pertains to individuals' sense of self, self-esteem, general satisfaction with life, and optimist outlook toward the future, *autonomy* relates to individuals' decisions about themselves on the basis of their own values, and *interpersonal relationship skills* are about individuals' abilities to empathize, give emotional support, and establish and maintain close interpersonal relationships.[21] *Self-control* refers to individuals' skills in coping with stress and ensuring emotion control, and *problem-solving and self-actualization* appertain to analytical thinking, decision-making skill, flexibility, and personal development attitude. These skills are also among the elements of emotional intelligence skills[21] and affect the individual's mental well-being.[4] Moreover, in previous studies, it is stated that especially nurses who could use their emotional intelligence skills had features such as making conscious decisions and developing and maintaining a care strategy,[34] and also, they found solutions to problems easily by developing positive interpersonal relationships, used effective coping skills, and were less affected by negative situations.[35] Besides, it was found that nurses who had a positive mental state by establishing effective interpersonal communication worked with a team spirit and

on the basis of cooperation,[27] were more successful in understanding their patients' problems and meeting their needs,[33] were more pleased with job assignments that they performed,[32] and had high levels of inner job satisfaction.[4] Additionally, it is put forward that nurses needed the self-control skill to cope with the stressful situation, switch to the proper psychological state, and make the right decision in critical situations by controlling their emotions during difficult periods.[4,28,35] In a similar vein to findings of the current study, studies performed on nurse managers[36] and student nurses[37] also found that emotional intelligence skills affected problem-solving skills positively. Moreover, it was stated that nurses who could utilize emotional intelligence skills established positive interpersonal relationships, their problem-solving skills increased, they used strategies well-suited to the reduction of stress when they were confronted with a difficult circumstance,[38] this situation, in turn, affected nurses' self-esteem and mental well-being positively,[4] and emotional intelligence skills were a significant factor enabling nurses to gain a professional status.[4,28,32] In light of these findings, it can be said that emotional intelligence skills are effective in developing nurses' mental health.

Furthermore, in the current study, it was found that emotional intelligence skills affected the *pro-social attitude* aspect of positive mental health very weakly ($P < .05$). In contrast to this finding of the current study, numerous studies stated that there was a significant relationship between emotional intelligence skills and pro-social attitude.[39] Pro-social attitude is about being altruistic (*the attitude of being of help to others and being supportive of them*) and having the skill in accepting others and different social features.[9] The most determining factor for pro-social behavior is the emphatic tendency.[37,40] In several studies, it is put forward that empathy that was one of the aspects of emotional intelligence skills affected the altruistic attitude in nurses and this was an expected situation.[38,40] In a study, it was identified that nurses with a high-level emphatic tendency were more likely to notice patients' problems and help patients in light of their needs than those with a low-level emphatic tendency.[40] In a study conducted with palliative care nurses, it was found that nurses had high-level altruistic tendencies, emphatic skills affected the altruistic behavior, and altruism had a positive effect on job and life satisfaction.[41] Also, in studies performed with nursing students, it is put forward that altruistic behavior was associated with self-efficacy tendency[31] and emphatic tendency.[30,38,40] In this regard, it is an expected situation that nurses who have emotional intelligence skills will exhibit a pro-social attitude such as "being of help to others and being altruistic" as required by the very nature of the nursing profession. On the other hand, the presence of a weak or an almost negligible relationship between emotional intelligence skills and pro-social attitude in the current study captures attention. Considering the effect of pro-social attitude on job and life satisfaction, it is thought that factors that affect nurses' pro-social attitudes should be studied.

Conclusion

In this study performed to examine the relationship between nurses' emotional intelligence skills and positive mental health, it was found that nurses had medium-level emotional intelligence skills and highly positive mental health, and there was a positive relationship between emotional intelligence skills and positive mental health, in other words, emotional intelligence skills were a predictor of mental health.

By declaring 2020 as the "Year of the Midwife and the Nurse," the World Health Organization advocates that a higher number of nurses are needed to achieve universal health coverage by 2030 and investments should be directed to the nursing workforce that serves under challenging conditions.[42] In this regard, not only strengthening the nursing workforce quantitatively but also enhancing its qualitative strength is important. Thus, by unearthing nurses' strengths that are likely to protect their mental well-being, in other words, by promoting their positive mental health, it can be ensured that nurses are also qualitatively strengthened. Results of this study demonstrated that nurses' emotional intelligence skills should be developed to ensure the promotion of their mental well-being. In this context, it is recommended that, first, the nursing curriculum to be designed to develop nurses' emotional intelligence skills be included in both pre-service and in-service training programs, second, awareness efforts be made to enable currently working nurses to recognize their weaknesses and strengths, third, the continuity of planned training programs be ensured, and fourth, the participation of nurses in activities such as seminars, conferences, workshops, and panels about the topic be supported.

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