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### **Original Article**



# The relationship between social intelligence, self-esteem and resilience in healthcare professionals and the affecting factors

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#### **Abstract**

**Objectives:** This study was carried out to determine the relationship between social intelligence, self-esteem and resilience in healthcare professionals and the affecting factors.

**Methods:** This is a cross-sectional and descriptive study. It was conducted at the Siirt Public Hospital between June 3 and September 15, 2017 with 241 healthcare professionals who agreed to participate in the study. The data were collected using a personal information form, the Rosenberg Self-Esteem Scale (RSES), the Tromso Social Intelligence Scale (TSIS) and the short version of the Resilience Scale (RS-14). The data were analyzed using SPSS Windows 22.0.

**Results:** The mean total scores obtained by the healthcare professionals were 74.2±11.4 on the TSIS, 21.2±4.18 on the RSES, and 19.5±5.0 on the RS-14. A positive statistically significant relationship was found between results on the Rosenberg Self-esteem Scale, the short version of the Resilience Scale, and the Tromso Social Intelligence scale and social intelligence subscales (p<0.001). Additionally, social intelligence was determined to be a factor predicting self-esteem and resilience. The self-esteem, social intelligence and resilience of the healthcare professionals who were good at self-expression were statistically significant and high (p<0.05).

**Conclusion:** The healthcare professionals had sufficient self-esteem and good levels of social intelligence and resilience, and self-esteem, resilience, and social intelligence were correlated. It can be suggested from these results that higher self-esteem, social intelligence and resilience levels in healthcare professionals would help them cope with stress and burnout.

Keywords: Healthcare professionals; psychiatric nursing; resilience; self-esteem; social intelligence.

Personal characteristics, skills, the prestige conferred on the profession by society, work expectations, and desired lifestyle all play a role in an individual's choice of profession. Achieving success in a profession has been shown to be associated with the elective selection of a profession and the psychological and mental preparedness for the profession. [1-4] When individuals choose a profession that is suitable to their characteristics, this strengthens their sense of self, whereas when they choose a profession that is unsuitable to their characteristics, this can lead to problems for both the individual and the workplace. [1-3] Self-conception refers to personal awareness about one's characteristics (physical char-

acteristics, intelligence, skills and abilities, etc.), while self-esteem refers to the contentment individuals have with their characteristics, emotions and thoughts, and current status. [5] Self-esteem generally involves the sense of feeling valuable and worthy of being admired and loved, and satisfaction with oneself; high self-esteem requires, in addition to the above, healthy, long-lasting relationships, outgoingness, strong coping skills, and a never-give up fighting spirit. Individuals with high self-esteem are characterized as being good at human relationships, willing to talk in groups, and having a positive impact on people. [6-10] Self-esteem constitutes an essential part of self-conception. For healthcare professionals, choos-



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#### What is known on this subject?

Social intelligence, which is defined as the ability to get along with others and understand their moods, has been shown to be the key factor associated with success for individuals in their professions. Moreover, sufficient levels of self-esteem and resilience help individuals cope with problems more constructively in stressful events.

#### What is the contribution of this paper?

• This study determined that there was a relationship between self-esteem, social intelligence, and resilience in healthcare professionals. It can be argued that sufficient levels of self-esteem and social intelligence would be effective in increasing resilience. This study also identified the importance of having resilience together with self-esteem and social intelligence, as when combined they facilitate adaptation to work life and improve the ability to cope with problems.

#### What is its contribution to the practice?

• It was determined that the behaviors and attitudes healthcare professionals have in the face of difficulties encountered in work life were closely correlated with their self-esteem, social intelligence, and resilience levels. This correlation between healthcare professionals' ability to behave effectively and appropriately and their social intelligence, self-esteem and resilience can help raise awareness about this subject in healthcare professionals and executives.

ing a field appropriate to one's self conception is particularly important in terms of coping with the difficulties they will encounter. It has been argued that healthcare professionals' ability to act effectively and appropriately is closely correlated with their social intelligence, self-esteem, and resilience. The many stressful events that individuals encounter over the course of their lives can serve to build and strengthen their resilience, which refers to their ability to be strong in the face of stress, the extent to which they can cope with stressful situations and maintain their well-being when struggling with these events, and their capacity to learn new things by turning these situations into opportunities.<sup>[11]</sup>

Resilience is generally defined as a person's capacity or skills to adapt, recover, cope with difficulties and maintain normal development in the event of negative experiences, such as a trauma, threats, relational problems with friends and family, health problems, and work-related and economic problems. [11-18] Personal factors, like intelligence, easy-goingness, internal locus of control, high self-esteem, self-competence, self-awareness, autonomy, effective problem-solving skills, optimism, and social competence, are key to increasing resilience. [19-21]

Social intelligence refers to the ability to understand and manage one's own feelings and behaviors as well as those of others and the skillful handling of human relationships. Social intelligence is defined as the "ability of individuals to understand other people's moods, feelings, desires, motivations, and intentions, and manner of working independently and on a team, and to solve problems and conflicts". It has been proposed that there are five components to social intelligence: understanding of other people's moods, ability to get along with others, knowledge of community norms, understanding and sensitivity in complex social situations, and competence in managing people. Silvera et al. (2001) suggested that understanding other people's feelings and thoughts defines the social information process; reading their body language

and understanding other's desires and expectations in relationships define social awareness; and immediately perceiving others' moods and understanding their thoughts define social skills. To satisfy these three components characterizing social intelligence, the concept of self needs to be fully developed, which means individuals must be able to know and present themselves effectively.<sup>[21-25]</sup>

The negative factors associated with working in the health-care profession, such as stressful working conditions, excessive working hours, low pay, improper physical conditions of the hospital, unhygienic working environments, lack of quality family time, and loss of opportunity to participate in social events, can cause emotional breakdown and decrease in performance in healthcare professionals. This study seeks to demonstrate the importance of self-esteem, social intelligence, and resilience in improving healthcare professionals' adaptation to work life and their ability to cope with difficulties, to raise awareness about this subject, and to contribute the data compiled to the literature.

#### **Materials and Method**

#### **Objective**

Using a cross-sectional descriptive design, this study aimed to determine the relationship between social intelligence, self-esteem, and resilience in healthcare professionals and the affecting factors.

#### **Population and Sample**

This study was carried out between June 3 and September 15, 2017 with healthcare professionals working in a public hospital affiliated with the Public Hospitals Association of Siirt. The study population was composed of 440 healthcare professionals working at the Siirt Public Hospital. Since the aim was to reach all the individuals in the population, no sample selection was carried out. The study was eventually completed with 241 participants.

#### **Data Collection Tools**

The data were collected using a personal information form, the Rosenberg Self-Esteem Scale (RSES), the Tromso Social Intelligence Scale (TSIS) and the short version of the Resilience Scale (RS-14).

#### **Personal Information Form**

The personal information form was developed based on the literature and included 24 questions about the participants' age, gender, marital status, the clinics they worked at, their duration of employment, education status, and habits. [7,10,21,22,24,27]

#### Rosenberg Self-Esteem Scale (RSES)

The scale was developed by Morris Rosenberg (1963).<sup>[28]</sup> Its

Turkish validity and reliability study was conducted by Çuhadaroğlu, who determined its reliability coefficient to be r=0.75. The scale is composed of 63 items, and its first ten items aim to measure self-esteem. The items are scored points of 0, 1, 2, and 3, and the total score range is between 0 and 30. Scores from 15 to 25 indicate a sufficient level of self-esteem, while scores below 15 points indicate a low level of self-esteem. <sup>[29]</sup> This study determined the Cronbach's alpha coefficient to be 0.85.

#### **Tromso Social Intelligence Scale (TSIS)**

This scale was developed by Silvera et al. (2001). [26] The Turkish validity and reliability study of the scale was conducted by Doğan (2006).[30] Each of the 21 items on the Likert-type scale is scored from 1 to 5. The lowest possible score on this scale is 21 and the highest possible score is 105. Higher scores on the scale indicate a high level of social intelligence. The TSIS measures social intelligence in three different dimensions: social information process, social awareness, and social skills. Items 1, 3, 6, 9, 14, 15, 17, and 19 are associated with the social information process subscale; items 4, 7, 10, 12, 18, and 20 are associated with the social skills subscale; and items 2, 5, 8, 11, 13, 16, and 21 are associated with the social awareness subscale. The Cronbach's alpha coefficient of the total score on this scale was determined to be 0.83. [26-30] This study found the Cronbach's alpha coefficient of the total score on the scale to be 0.87.

#### **Short version of the Resilience Scale (RS-14)**

This scale was developed by Smith et al. (2008).<sup>[31]</sup> Its Turkish validity and reliability study was conducted by Doğan (2015). <sup>[27]</sup> RS-14 is a self-report 5-point Likert type scale with six items. Higher scores on the scale indicate a high level of resilience. The internal consistency coefficient of the scale ranged from 0.80 to 0.91. This study determined that the Cronbach's alpha coefficient of the scale was 0.86.

#### **Data Analysis**

The data were analyzed using SPSS 22.0. The study results were evaluated using percentages, numbers, percentage distribution, mean±standard deviation, Kolmogorov Smirnov and Pearson correlation analysis, Mann Whitney U and Kruskal Wallis tests, and regression analysis. The results were assessed within the 95% confidence interval, and the significance level was accepted as p<0.05.

#### **Ethical Considerations**

Ethical approval (2017/171) to conduct the study was obtained from the Gaziantep University Clinical Research Ethics Committee, and institutional permissions were received from the T.R. Ministry of Health Public Hospitals Association of Siirt, to which the Siirt Public Hospital was affiliated. All participants who agreed to participate in the study were informed about

the aim of the study and confidentiality of the information before signing the informed consent form.

#### **Results**

Table 1, which presents the participants' sociodemographic characteristics, shows that 59% were female, 19% were physicians, 62% were nurses, 5% were midwives, 15% were health officers, 70% were born in the southeastern region of Anatolia, 56% were married, 51% did not have children, and 41% had an undergraduate degree. The fathers of 18% of the participants were deceased, and the mothers of 78% were reported to have a protective style of parenting. It was further found that 35% had 1-5 years of experience in the profession, 68% worked the day shift, 69% had regular shifts, 62% had 8 hour-shifts, 10% had physical problems, 5% had psychological problems, 14% had family members with physical health problems, 6% had family members with psychological problems, 98% used the internet, 69% did not smoke, and 81% did not use alcohol (Table 1).

The participants' total scores on the scales were as follows:  $21.27\pm4.18$  on RSES;  $19.57\pm5.03$  on RS-14;  $74.27\pm11.45$  on TSIS;  $24.76\pm5.52$  on the TSIS Social Awareness Subscale;  $20.61\pm4.30$  on the TSIS Social Skills Subscale, and  $28.90\pm5.43$  on the TSIS Social Information Process Subscale (Table 2).

Results from the correlation analysis showed that there was a positive statistically significant relationship between the participants' scores on the Rosenberg Self-esteem Scale, the Resilience Scale, the Social Intelligence Scale and the Social Intelligence Scale subscales (p<0.01). It was determined that as the participants' mean TSIS total and subscale scores increased, so did the mean RSES and RS-14 total scores (Table 3).

Social intelligence was determined to be a factor predicting self-esteem and resilience. In this study, 14% of the change in the TSIS and RSES scores was explained (R: .382a, R²: .146, Adjusted R²: .143, F: 10.610, a.Predictors: (Constant) Social Intelligence Scale). Moreover, 20% of the change in the TSIS and RS-14 scores was explained (R: .456a, R²: .208, Adjusted R2: .205, F: 10.219, a. Predictors: (Constant) Social Intelligence Scale). It was determined that social intelligence affected self-esteem by 14% and resilience by 20%, with the total impact being 34% (Table 4).

There was no significant difference between scale scores and the variables (gender, number of children, maternal attitudes, parents being alive, shifts, regular shifts, working hours, working department, smoking, internet usage, physical and mental health problems, and physical and mental health problems in the family) (p>0.05). However, there was a statistically significant difference between the mean total RSES scores in terms of being in the 31–40 age range, having a protective father, having 16–20 years of working experience, working the day shift, alcohol consumption on special occasions, and being able to express oneself on any occasions; between the mean total TSIS scores in terms of being married, having a postgraduate degree; and between the mean total RS-14 scores in

Characteristics	n	%	Characteristics	n	%
Gender			1–5 years	84	34.8
Female	143	59.4	6–10 years	83	34.4
Male	98	40.6	11–15 years	29	12.1
Age			16–20 years	10	4.1
18–20	17	7	21 and more	8	3.3
21–30	137	56.8	Work shift		
31–40	76	31.6	Day	164	68.1
41–50	11	4.6	Night	10	4.1
Place of birth			Changing shifts	22	9.1
Southeastern Anatolia	168	69.8	Guard duty	45	18.7
East Anatolia	15	6.3	Regular shifts		
Black Sea region	9	3.7	Yes	167	69.2
Central Anatolia	23	9.5	No	74	30.7
Mediterranean region	12	5	Working hours/day		
Aegean region	9	3.7	8 hours	150	62.3
Marmara region	5	2	12 hours	23	9.5
Marital status			Other	68	28.2
Married	134	55.6	Department		
Single	101	41.9	Internal medicine	44	18.2
Divorced	6	2.5	Surgical	42	17.5
Number of children	· ·	5	Intensive care	34	14.1
None	122	50.6	Outpatient clinics	53	22
One	65	27	Other	68	28.2
Two	41	17	Physical health problems		
Three and more	13	5.4	Yes	24	10
Profession	13	5.1	No	217	90
Physician	45	18.7	Physical health problems in the family		
Nurse	149	61.8	Yes	34	14.1
Midwife	12	5	No	207	85.9
Health officer	35	14.5	Mental health problems	4.4	
Education level	33	14.5	Yes	11	4.6
High school	31	12.9	No	230	95.4
Associate degree	59	24.5	Mental health problems in the family		
Undergraduate degree	100	41.5	Yes	15	6.2
Postgraduate degree	51	21.1	No	226	93.8
Mother alive	21	21.1	Internet use	224	07.0
Yes	222	92.1	Yes	236	97.9
No	19	7.9	No	5	2.1
Father alive	19	7.9	Smoking	4.7	
Yes	199	82.2	I do not smoke	167	69.3
No	43	17.8	1–10 cigarettes a day	34	14.1
	43	17.0	11–20 cigarettes a day	27	11.2
Mother's parenting style	21	12.0	20 and more cigarettes a day	8	3.3
Authoritarian	31 20	12.9	On special occasions	5	2.1
Democratic Protective		8.3	Alcohol consumption	100	01.4
Protective	187	77.6	I do not drink	196	81.4
Neglecting	3	1.2	1 or more times a week	14	5.8
Father's parenting style		22.0	1–2 times a month	8	3.3
Authoritarian	55	22.8	On special occasions	16	6.6
Democratic	54	22.4	Almost every day	7	2.9
Protective	115	47.7	Self-expression		
Neglecting	17	7.1	I can express myself on any occasions	130	54
Years of experience in the profession			Sometimes well, sometimes poorly	90	37.3
Less than 1 year	27	11.3	I have difficulty expressing myself	21	8.7

terms of being born in the eastern Anatolian region of Turkey, being a physician, and being able to express oneself on any occasions (p<0.05) (Table 5).

Table 6 shows the comparison of the participants' mean total TSIS, RSES, and RS-14 scores according to exposure to threats, physical violence, physical and emotional negligence and

Table 2. Healthcare professionals' mean total scores on the RSES, RS-14 and TSIS and its subscales						
Scales	Minimum-Maximum	Mean±Standard deviation				
Rosenberg Self-Esteem Scale (RSES)	6.00-30.00	21.27 ± 4.18				
Resilience Scale (RS-14)	6.00-30.00	$19.57 \pm 5.03$				
Tromso Social Intelligence Scale (TSIS)	38.00-105.00	74.27 ± 11.45				
TSIS Social Awareness subscale	8.00-35.00	24.76±5.52				
TSIS Social Skills subscale	8.00-30.00	20.61±4.30				
TSIS Social Information Process subscale	10.00-40.00	28.90±5.43				

Table 3. Correlation between healthcare professionals' scores on the RSES, RS-14, TSIS, and Social Intelligence subscales (Social Information Process (SIP), Social Skills (SS), Social Awareness (SA))

		RSES	RS-14	TSIS	TSIS (SIP)	TSIS (SA)	TSIS (SS)
Rosenberg Self-Esteem Scale (RSES)	r	1	.346**	.381**	.402**	.152*	.311**
	р		.000	.000	.000	.018	.000
Resilience Scale (RS-14)	r		1	.456**	.281**	.397**	.350**
	р			.000	.000	.000	.000
Social Intelligence Scale (TSIS)	r			1	.744**	.742**	.769**
	р				.000	.000	.000
TSIS Social Information Process (SIP)	r				1	.232**	.421**
Subscale	р					.000	.000
TSIS Social Awareness (SA) Subscale	r					1	.400**
	р						.000
TSIS Social Skills (SS) Subscale	r						1
	р						.000

r: Spearman rank correlation coefficient, significant at \* 0.05, significant at \* 0.01. R value: 0.2-0.4 weak; 0.4-0.6 moderate; 0.6 and above strong correlation.

Table 4. Regression Analysis of healthcare professionals' RSES, RS-14, and TSES scores								
Scales	Unstandar	dized Coefficients		t	р			
	В	Std. Error	β					
Rosenberg Self-Esteem Scale (RSES)	1.04	.16	.38	6.3	0.000			
Tromso Social Intelligence Scale (Constant)	52.0	3.5	-	14.6	0.000			
Short version of the Resilience Scale (RS-14)	1.03	.13	.45	7.9	0.000			
Tromso Social Intelligence Scale (Constant)	53.9	2.6	-	20.3	0.000			

sexual harassment during childhood. It was determined that 17.8% of the participants experienced threats, 12% experienced physical violence, 13.6% experienced physical negligence, 14.5% experienced emotional negligence, 5.8% experienced sexual harassment by a stranger, and 3.3% experienced sexual harassment by a relative. In comparing physical violence, threats, physical and emotional negligence, exposure to sexual harassment in childhood and the mean total RSES, TSIS, and RS-14 scores, it was determined that the healthcare professionals who experienced physical violence, threats, physical and emotional negligence, and sexual harassment in their childhood had statistically significantly lower RSES total scores; those who experienced threats and sexual harassment

by a relative in their childhood had statistically significantly higher TSIS total scores; and those who experienced emotional negligence in their childhood had statistically significantly higher RS-14 total scores (p<0.05) (Table 6).

#### **Discussion**

This study aimed to identify the relationship between health-care professionals' social intelligence, self-esteem, and resilience levels and the affecting factors. The results derived from the study showed that the healthcare professionals' self-esteem was at sufficient levels, and that their social intelligence and resilience were at good levels. There was a positive sig-

Table 5. Comparison of healthcare professionals' sociodemographic characteristics and their mean total RSES, RS-14, and TSIS scores

Characteristics	RSES	Statistical Value	TSIS	Statistical Value	RS-14	Statistical Value
Gender						
Female	21.37±4.16	Z=0.171	74.40±11.57	Z=0.042	19.08±5.00	Z=3.388
Male	21.14±4.24	p=0.679	74.09±11.33	p=0.839	20.29±5.01	p=0.067
Age	2111121	p 0.073	, 1.05=11.55	p 0.033	20.2723.01	p 0.007
18–20	20.32±5.71	X <sup>2</sup> =4.166	71.24±11.96	X <sup>2</sup> =1.806	20.86±5.91	$X^2=2.537$
21–30	20.64±4.29	p<0.007	73.35±11.50	p=0.147	18.82±4.83	p=0.057
31–40	22.56±3.37	p 101007	76.91±11.02	ρ σ	20.47±4.91	p 0.00.
41–50	21.91±4.20		78.23±10.49		20.93±4.65	
Place of birth	2.17.2.120		7 0.20 2 1 0 1 1 2		20,75255	
Southeastern Anatolia	21.22±4.28	X <sup>2</sup> =1.454	73.42±11.91	$X^2=1.474$	19.41±4.83	X <sup>2</sup> =2.528
East Anatolia	22.93±2.49	p=0.196	77.33±7.67	p=0.188	23.20±5.75	p<0.022
Black Sea region	21.33±3.64	p	83.00±8.54	p	17.67±6.92	F
Central Anatolia	21.95±3.14		75.09±9.90		20.96±4.52	
Mediterranean region	21.50±4.40		75.50±12.22		18.08±4.72	
Aegean region	19.66±5.59		75.67±9.82		16.89±4.88	
Marmara region	17.40±5.27		68.80±13.14		19.40±3.97	
Marital status						
Married	21.72±3.41	$X^2=1.664$	75.99±11.7	$X^2=3.898$	20.12±4.64	$X^2=1.719$
Single	20.71±5.04	p=0.180	72.37±11.5	p<0.022	18.86±5.48	p=0.181
Divorced	20.84±3.35	,	68.00±10.4	·	19.51±4.23	•
Number of children						
None	20.85±4.79	$X^2=0.921$	73.11±11.60	$X^2=1.466$	19.32±5.64	$X^2 = 0.289$
One	21.80±3.01	p=0.431	75.83±11.48	p=0.224	29.04±4.95	p=0.833
Two	21.53±3.75	·	76.17±9.07	·	29.51±4.42	•
Three and more	21.37±4.39		71.46±15.54		28.90±7.94	
Profession						
Physician	22.62±3.43	$X^2=2.215$	77.82±10.13	$X^2=2.514$	21.47±4.75	$X^2=3.118$
Nurse	21.10±4.23	p=0.081	74.10±11.03	p=0.059	19.31±4.72	p<0.027
Midwife	20.11±4.68		70.28±14.77		19.10±6.67	
Health officer	20.47±4.40		71.83±12.50		18.14±5.40	
Education level						
High school	20.30±4.92	$X^2=1.807$	73.22±14.64	$X^2=3.797$	20.34±5.38	$X^2 = 2.478$
Associate degree	20.78±4.88	p=0.140	72.06±10.18	p<0.011	18.26±5.52	p=0.062
Undergraduate degree	21.36±3.51		74.10±11.35		19.20±4.61	
Postgraduate degree	22.20±3.94		77.73±10.30		21.23±4.35	
Mother alive						
Yes	21.20±4.07	Z=0.059	74.41±11.02	Z=0.668	19.65±5.04	Z=0.714
No	21.01±5.80	p=0.870	72.23±15.37	p=0.415	18.61±5.02	p=0.399
Faher alive	24 22 : 4 22	7 0 207	72.75 . 11.26	7 2042	10.25 . 4.02	7 2 462
Yes	21.32±4.03	Z=0.297	73.75±11.26	Z=2.842	19.25±4.92	Z=2.463
No	21.29±5.07	p=0.741	77.36±11.90	p=0.060	20.69±5.14	p=0.087
Mother's parenting style	20.01   2.15	V2 0 207	76 27   12 71	V2 1 F07	20.10   5.62	V2 1 1 4 1
Authoritarian	20.91±3.15	$X^2 = 0.307$	76.37±13.71	X <sup>2</sup> =1.587	20.18±5.63	$X^2=1.141$
Democratic Protective	20.71±4.06	p=0.873	70.81±10.73 74.10±11.07	p=0.179	19.70±4.45	p=0.338
	21.36±4.33		80.07±9.85		19.54±5.08 14.34±3.25	
Neglecting Father's parenting style	23.01±4.56		60.07±9.63		14.34±3.23	
Authoritarian	21.30±3.61	X <sup>2</sup> =5.371	73.35±21.08	X <sup>2</sup> =0.641	19.28±5.36	X <sup>2</sup> =1.877
Democratic	21.52±4.05	p<0.001	74.33±11.15	p=0.589	19.25±3.36 19.93±4.25	p=0.134
Protective	21.67±3.98	p<0.001	75.07±10.13	p=0.369	19.93±4.23 19.94±4.70	p=0.134
Neglecting	17.45±6.16		71.41±18.03		17.05±7.39	
Years of experience	17.75±0.10		/ 1. <del>T</del> 1±10.03		17.0517.55	
in the profession						
Less than 1 year	19.82±5.43	X <sup>2</sup> =2.707	70.52±13.43	X <sup>2</sup> =2.055	18.44±4.83	X <sup>2</sup> =1.014
1–5 years	20.41±4.40	p<0.020	70.52±15.45 72.57±11.46	p=0.072	19.27±5.19	p=0.410
6–10 years	22.05±3.52	P < 0.020	76.66±10.7	p=0.072	20.31±4.92	p=0. <del>1</del> 10
11–15 years	22.28±3.14		74.34±7.52		18.78±5.46	
16–20 years	23.35±4.06		79.11±17.00		20.81±5.53	
21 and more	21.04±3.71		74.81±10.73		20.58±2.61	

Table 5. Comparison of healthcare professionals' sociodemographic characteristics and their mean total RSES, RS-14, and TSIS scores (continue)

Characteristics	RSES	Statistical Value	TSIS	Statistical Value	RS-14	Statistical Value
Work shift						
Day	21.52±3.73	$X^2=3.582$	75.04±11.40	$X^2=1.843$	19.74±5.56	$X^2 = 0.231$
Night	17.21±6.65	p<0.014	66.71±11.23	p=0.140	19.02±4.11	p=0.874
Changing shifts	21.01±5.23		74.54±11.35		18.83±5.56	
Guard duty	21.27±4.06		73.17±11.08		19.53±4.81	
Regular shifts						
Yes	21.52±3.86	Z=2.641	74.30±11.73	Z=0.010	19.77±4.86	Z=0.522
No	20.67±4.71	p=0.098	74.18±10.92	p=0.920	19.21±5.42	p=0.471
Working hours/day						
8 hours	21.48±3.53	$X^2 = 0.407$	75.02±10.70	$X^2 = 2.907$	19.74±4.95	$X^2 = 2.206$
12 hours	21.14±6.36	p=0.666	77.04±12.15	p=0.057	20.97±5.58	p=0.112
Other	20.91±4.52		71.63±12.41		18.61±4.86	
Department						
Internal medicine	20.93±4.30	$X^2 = 0.642$	72.01±11.44	$X^2=1.289$	19.53±4.22	$X^2=0.293$
Surgical	20.91±3.81	p=0.668	74.95±14.47	p=0.269	19.97±5.93	p=0.916
Intensive care	22.21±5.12		71.87±9.25		18.70±4.01	
Outpatient clinics	21.60±3.45		76.67±10.38		19.8±5.66	
Other	20.92±4.30		74.41±11.09		19.62±4.94	
Physical health problems						
Yes	20.57±4.50	Z=0.732	77.51±10.55	Z=2.123	18.92±4.38	Z=0.391
No	21.32±4.13	p=0.393	73.48±11.54	p=0.146	19.63±5.14	p=0.533
Physical health problems in the family						
Yes	20.72±3.68	Z=0.664	76.7±10.47	Z=1.833	19.10±5.74	Z=0.277
No	21.36±4.24	p=0.416	73.8±11.56	p=0.177	19.61±4.96	p=0.599
Mental health problems						
Yes	18.90±4.37	Z=3.729	74.86±10.59	Z=0.026	17.38±4.66	Z=1.546
No	21.36±4.15	p=0.055	74.21±11.50	p=0.872	19.64±5.01	p=0.215
Mental health problems in the family						
Yes	19.91±5.10	Z=1.653	75.61±11.80	Z=0.214	18.42±6.90	Z=0.766
No	21.35±4.11	p=0.200	74.12±11.43	p=0.644	19.64±4.87	p=0.382
Internet use						
Yes	21.27±4.19	Z=0.002	74.39±11.50	Z=0.167	19.51±5.02	Z=0.139
No	21.25±5.01	p=0.967	72.27±6.35	p=0.683	20.45±6.67	p=0.710
Smoking						
I do not smoke	21.59±5.04	$X^2=1.789$	74.64±10.73	$X^2=1.771$	19.74±5.05	$X^2=1.315$
1–10 cigarettes a day	20.54±4.06	p=0.145	73.35±11.40	p=0.135	18.54±4.66	p=0.265
11–20 cigarettes a day	21.63±4.80		76.32±14.49		20.56±4.75	
20 and more cigarettes a day	19.01±5.52		69.24±12.27		18.31±4.87	
On special occasions	18.42±8.18		63.86±11.42		16.40±7.05	
Alcohol consumption						
I do not drink	21.20±3.92	$X^2=3.327$	73.81±11.35	X <sup>2</sup> =0.918	19.48±5.06	$X^2=1.362$
1 or more times a week	21.42±5.11	p<0.011	75.87±10.71	p=0.419	18.70±4.81	p=0.248
1–2 times a month	22.27±2.18		80.22±11.46		22.03±7.02	
On special occasions	22.40±4.93		76.21±13.48		21.42±3.86	
Almost every day	16.01±4.67		70.42±9.90		17.52±1.58	
Self-expression		10 15				
I can express myself on any occasions	22.30±3.63	$X^2=18.355$	70.97±10.14	$X^2 = 13.568$	20.17±5.01	$X^2=5.516$
Sometimes well, sometimes poorly	22.45±4.04	p<0.0001	72.22±11.56	p<0.0001	19.20±4.83	p<0.005
I have difficulty expressing myself	15.09±5.58		59.72±13.84		14.72±4.47	

nificant relationship between the healthcare professionals' self-esteem, resilience and social intelligence levels, and social intelligence was determined to be a factor that predicts self-esteem and resilience, which means that self-esteem, resilience and social intelligence levels were variables posi-

tively affecting one another. The literature review conducted as part of this study revealed that there was no research investigating the relationship between healthcare professionals' self-esteem, social intelligence and resilience. However, there were studies reporting a positive relationship between resil-

Type of Trauma	n	%	RSES	Statistical Value	TSIS	Statistical Value	RS-14	Statistical Value
Threats								
Yes	43	0.18	18.59±4.80	Z=24.663	70.71±11.53	Z=4.982	18.27±6.03	Z=3.599
No	198	0.82	21.84±3.74	p<0.0001	75.01±11.32	p<0.027	19.80±4.72	p=0.059
Physical violence								
Yes	29	0.12	18.94±4.73	Z=10.445	71.46±13.77	Z=2.013	17.97±5.80	Z=3.377
No	212	0.88	21.51±4.02	p<0.001	74.63±11.08	p=0.157	19.72±4.82	p=0.067
Physical negligence								
Yes	33	0.14	18.93±5.47	Z=12.834	74.43±16.25	Z=0.013	18.18±7.07	Z=3.057
No	208	0.86	21.63±3.87	p<0.0001	74.20±10.54	p=0.910	19.77±4.63	p=0.082
Emotional negligence								
Yes	35	0.15	18.00±5.17	Z=26.818	72.47±12.97	Z=0.997	17.51±5.64	Z=6.992
No	206	0.85	21.84±3.73	p<0.0001	74.52±11.15	p=0.319	19.23±4.85	p<0.009
Sexual harassment								
by a stranger								
Yes	14	0.06	17.02±6.29	Z=15.925	69.80±13.26	Z=2.219	18.17±5.26	Z=1.194
No	227	0.94	21.53±3.84	p<0.0001	74.53±11.37	p=0.138	19.64±5.03	p=0.276
Sexual harassment								
by a relative								
Yes	8	0.03	14.57±6.23	Z=23.721	64.07±12.23	Z=6.813	17.11±5.63	Z=1.958
No	233	0.97	21.55±3.91	p<0.0001	74.67±11.21	p<0.010	19.64±5.01	p=0.163

ience and self-esteem.[32-37] Doğan et al. (2009)[38] determined in their study carried out with university students that there was a strong positive relationship between self-esteem and social intelligence. Polatcı et al. (2017)[39] reported that there was a positive relationship between resilience and job satisfaction. Individuals with high social intelligence are able to understand other people's moods, desires, joy, anger, and trigger points, adapt their behaviors according to others, get along with others, establish good communication with others, collaborate, work in harmony, and effectively establish verbal and/or non-verbal communication with other members in a group.[40] It can be suggested that to be a good healthcare professional requires understanding other's feelings, which is one of the most important factors of social intelligence. Furthermore, having resilience helps healthcare workers to manage their stress at work, solve problems more quickly, and cope with their responsibilities more easily, all of which would serve to increase their job satisfaction and commitment to the institution. The satisfaction and happiness healthcare professionals have with their work life can be an important factor affecting their personal life. It is believed that the behaviors and attitudes healthcare professionals present in the face of difficulties encountered in work life are closely correlated with their self-esteem, social intelligence, and resilience levels.

In this study, no difference was found between healthcare professionals' self-esteem, resilience and social intelligence

levels in terms of gender. Likewise, Aydın and Egemberdiyeva (2018),<sup>[41]</sup> Tümlü et al. (2013)<sup>[40]</sup> and Sezgin (2012)<sup>[42]</sup> determined in their studies that gender was not a factor affecting resilience. Balat et al. (2004)<sup>[43]</sup> determined that gender was not a variable affecting self-esteem, and Doğan (2006)<sup>[30]</sup> found that students' social intelligence levels did not change according to gender. According to the results of previous studies, it can be suggested that gender does not play a role in the development of self-esteem, resilience and social intelligence. Rather, hereditary characteristics and psychosocial characteristics, such as upbringing and education, contribute to the formation of self-esteem, resilience, and social intelligence.

This study determined that there was a significant difference between age and self-esteem, with healthcare professionals in the 31–40 age range having higher self-esteem. There was no significant difference between social intelligence and resilience levels according to age. Sarıkaya (2015)<sup>[34]</sup> determined that there was a relationship between the age variable and self-esteem. Tümlü and Recepoğlu (2013)<sup>[42]</sup> reported that there was no significant difference between age and resilience, while Aydın and Egemberdiyeva (2018)<sup>[41]</sup> found that age significantly predicted resilience levels. It can be argued that the maturity that comes with age allows individuals to gain a better understanding of self-conception, that is, they can find answers to the questions about the purpose of life, they have more life experience, they have awareness of their

personal success, and their capacity to develop action plans to address failures improves. In effect, self-esteem, social intelligence, and resilience change in parallel with rise in age.

It was determined in this study that in cases where the parents of the healthcare professionals were still alive there was no significant difference in the participants' resilience, social intelligence and self-esteem. In terms of the parents' approach to raising their kids, the healthcare professionals who reported that their fathers neglected them had lower self-esteem scores. In the study that Ergün (2016)[45] conducted with adolescents, it was reported that there was no significant relationship between the adolescents who had surviving parents and resilience. Baybek et al. (2005)[46] determined in their study with university students that students who reported being raised by a family who took a carefree approach to them had lower self-esteem scores. From these results it can be aroued that self-esteem is negatively affected when individuals feel insignificant because their parents do not value, love or support them as children.

In the present study, it was determined that healthcare professionals who were good at self-expression had higher self-esteem, social intelligence, and resilience levels. Çarman (2015) [47] reported that resilience and outwardness are factors predicting personal characteristics. Doğan et al. (2009)[38] found in their study with students that those who had good human relationships had better self-esteem and social intelligence levels. Razı et al. (2009)[49] determined in their study involving individuals in the 15-24 age group that those who had good communication skills also had good stress-coping and problem-solving skills. The way in which individuals express themselves is an indicator of their self-esteem. Moreover, the abilities to establish good relationships and to express oneself are complementary characteristics of both self-esteem and social intelligence. Individuals with high social intelligence tend to have high self-confidence, good social skills and be more outgoing in human relationships. [49] It has also been argued that individuals with high resilience are better able to cope with stressful events, establish good communication, and easily adapt to their environment, even when challenging. [50] The results from the present study are in line with those reported in previous studies. In addition to the tolerance healthcare professionals need to show in the face of problems experienced with patients, they must also be able to understand verbal and non-verbal messaging and have empathy.

In the present study, the healthcare professionals who reported to have experienced physical violence, threats, sexual harassment and/or negligence in their childhood had lower self-esteem. A study by Karaırmak Ö, Siviş- Çetinkaya (2011) <sup>[6]</sup> found that good and bad memories from childhood affect self-esteem and resilience in adulthood. Masten (2001)<sup>[12]</sup> reported in her study carried out with individuals who were traumatized in their childhood that those who had strong resilience had higher self-esteem. Furthermore, Ovayolu et al. (2007)<sup>[51]</sup> stated that the skills required to establish inter-

personal relationships and maintain social relationships are negatively affected by harassment. Family support is among the factors that increase resilience. Especially in childhood, the care and affection fostered by the family affect the future life of the individual. When children experience stress and trauma in their family life, this can affect their character development as they grow up. Once individuals reach adulthood, their experiences from the past will constitute their characteristics. Traumas experienced during childhood can be determinants of the behaviors exhibited in adulthood; thus, individuals who were exposed to violence, harassment and abandonment in their childhood are more likely to experience psychopathological illnesses and deficiencies in maintaining human relationships in the future.

#### **Conclusion**

This study determined that the participating healthcare professionals had sufficient self-esteem and good levels of social intelligence and resilience, and that there was a positive significant relationship between their self-esteem, social intelligence and resilience, which means that those who had high social intelligence levels also had high self-esteem and resilience. It was further found that the healthcare professionals who experienced physical violence, threats, physical and emotional negligence, and sexual harassment, who used alcohol, had shorter working hours and irregular shifts, and whose fathers neglected them had lower self-esteem. In contrast, the healthcare professionals who had a high education level and who were married had higher social intelligence, and physicians had higher social awareness than that of other healthcare professionals. Finally, those that were born in the southeastern Anatolian region of Turkey had good levels of resilience, and those who were good at self-expression had higher self-esteem and resilience.

In the planning of interventions aimed at increasing the self-esteem and resilience of healthcare professionals, it would be beneficial to take into consideration their upbringing, personal characteristics, the cultural characteristics of their place of residence, any difficulties in their working conditions, and whether they had experienced childhood trauma.

It was further determined that a higher level of education is an important factor in social intelligence level. Therefore, supporting healthcare professionals in their education could help them have a more successful and productive working life.

Lastly, this study determined that self-esteem, social intelligence, and resilience are closely correlated. Resilience plays an important role in overcoming the numerous stressors arising from the work environment, working conditions and interpersonal relationships. Group studies that focus on building communication skills, social skills, assertiveness, empathy, emotional intelligence, locus of control, and coping with stress can be recommended to improve self-esteem and social intelligence, as these positively support resilience.

#### **Study Limitations**

There were several limitations to this study that are important to mention. First, 70% of the population could not be reached due to being on leave during the dates the study was carried out. Second, since there were no studies found specifically investigating self-esteem, social intelligence, and resilience levels in healthcare professionals, the Discussion section included results from studies involving different groups. Lastly, too many scale items and multiple scales were used in the study, which made it difficult for healthcare professionals to spare time for filling out the measurement tools due to their heavy workload.

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