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Emotional Intelligence and Leadership Orientations Among University Students

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ABSTRACT

This study aimed to determine the relationship between emotional intelligence and leadership orientations among university students. This study had a descriptive comparative design. The research data were collected using the "Semi-Structured Question Form," the "Emotional Intelligence Scale," and the "Leadership Orientations Scale." Results showed that a significant positive relationship was determined between emotional intelligence level and leadership orientations in students in the fields of health, social, and science. It is important to develop students' emotional intelligence levels and leadership orientations.

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INTRODUCTION

One of the most important tasks of higher education is to produce graduates with certain skills who will lead different institutions and organizations in the future (Hilliard, 2010). According to the World Economic Forum ("World Economic Forum ", 2020), the most important characteristics expected from graduates are "emotional intelligence" and specified competencies such as "problem solving," "creativity," "critical thinking," etc., which are the basic characteristics of leadership. Another important goal of higher education is to produce graduates with professional identity (Selic, Cerne, Klemenc-Ketis, Petek, & Svab, 2019), leadership qualities (Thompson & Miller, 2018), emotional intelligence (Johnson, 2015), effective communication skills (Shorey et al., 2019), and motivation for lifelong learning (Raut & Gupta, 2019). Emotional intelligence and leadership training are strongly compatible with the realization of the missions of higher education (Komives & Sowcik, 2020).

A university education is expected to contribute to a student's vocational and professional development. In this respect, it is necessary for universities to prepare programs under the leadership of trained lecturers that facilitate experimental learning, which aids in the development of effective leadership and emotional intelligence (Speelman & Wagstaff, 2015). Generation Z, which will constitute the manager, employee, and producer segment of the 21st century, will play an important role in the development and construction of the future. It has been reported that today's young people (Generation z) are part of a generation that constantly improves themselves and pursues learning with their ability to adapt to new knowledge with high speed (Taş, Demirdöğmez, & Küçükoğlu, 2017). For this reason, initiating

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and running programs that will develop effective leadership and emotional intelligence in undergraduate and even secondary education students encourages Generation Z students to become leaders with high emotional intelligence (Swanwick & McKimm, 2012). Morison and McMullan (Morison & McMullan, 2013) emphasized that leadership development is essentially an educational issue, and that universities play a very important role in this regard.

Emotional intelligence is defined as a multidimensional structure that develops through mutual influences of familial, environmental, and cognitive factors (Thomas, Cassady, & Monica, 2017). Emotional intelligence is regarded as a combination of abilities, such as self-knowledge, emotional management, motivation, and interpersonal relationships; taken together, emotional intelligence can be defined as a determinant of success (Geng, 2018; Goleman, 1996). At the same time, emotional intelligence improves social adaptation (Lopes et al., 2004), improves the ability to work effectively in a team, leads to satisfactory performance (Lopes, Grewal, Kadis, Gall, & Salovey, 2006), and allows one to more effectively cope with stress and environmental pressures (Mikolajczak, Menil, & Luminet, 2007). In the literature, students with high emotional intelligence have been reported to have better psychological resilience (Edara, 2021), interpersonal relationships (Pérez-Fuentes et al., 2019), conflict resolution skills (Santamaría-Villar et al., 2021), and academic achievements (Suleman et al., 2019). In addition, students with high emotional intelligence maintain their ability to sustain these achievements throughout their university life (Suleman et all, 2019; Shengyao et all., 2024).

Like emotional intelligence, leadership skills are also vital in establishing positive relationships within teams and creating positive work environments (Laschinger, Wong, Cummings, & Grau, 2014). Recently, the importance of having high emotional intelligence (EQ) rather than intellectual intelligence (IQ) for effective leadership has been emphasized (Foster et al., 2017; Roig Jornet & Kalenderian, 2018; Sadeghi et al., 2018). Leaders may need to manage their employees' emotions to increase and facilitate their daily work performance (Gooty & Yammarino, 2016; R. H. Humphrey, 2012). Effective leadership skills are absolutely required for leaders who must provide appropriate emotional responses in situations involving ethical dilemmas, interpersonal conflicts, and institutional crisis in the work environment (Connelly et al., 2014). Given the impact of emotions on behavior, the effective management of emotions is considered the key to successful leadership (Torrence & Connelly, 2019). The dynamic nature of institutions requires leaders to manage and meet multiple demands on a daily basis, and to be effective with the people they work with (Haver, Akerjordet, & Furunes, 2013; R. H. Humphrey, 2012). Leaders with emotional intelligence understand their employees' motivations by taking into account their emotions and passions. In this way, managers ensure that the people they work with combine their goals to act towards a common goal (Cummings, Hayduk, & Estabrooks, 2005), and thus, they strengthen the team by ensuring that trust and understanding prevail within the team (Laschinger et al., 2014). Today, in the rapidly changing, developing, and globalizing world, many functions are expected from leaders, such as vision and goal setting, establishing a corporate culture, and providing communication between units. These processes increase institutions' needs for effective leaders (Dickson and Isaiah, 2024).

Emotional intelligence (Sadeghi et al., 2018) and leadership (Barnes, 2020) are not inherited, but can be learned. Therefore, it has been suggested that emotional intelligence (Tehrani, Kabir, Cheraghi, Bokaeian, & Yaghoobi, 2013) and leadership should be included in the university education curriculum. It is very important that leadership training is taught and strengthened during university education and in places where vocational education is provided (Baird, Soldanska, Anderson, & Miller, 2012; White, Bledsoe, Hendricks, & Arroliga, 2019). Leadership training contributes to the development of both student vision and emotional intelligence. In the literature, there is a small study that evaluates the leadership orientations and emotional intelligence of university students. That study focuses only on students within certain departments. In the current study, the relationship between leadership orientation and emotional intelligence, which can be learned and developed during university education, was evaluated in university students who will be the professionals of the future.

DESIGN AND METHODS

Aim

This research was conducted in order to determine the emotional intelligence levels and leadership orientations of university students.

Design and procedure

This study, which aims to determine the emotional intelligence levels and leadership orientations of students studying at a university, was conducted in a descriptive comparative design. This research was performed at a well-established university in Turkey's capital, which is preferred by students with high academic achievements, and ranks highly among the world's universities. In the 2014-2015 academic year, there were a total of 31,132 students in 14 faculties with 70 departments and 1 conservatory affiliated to these faculties in this university. A total of 1971 (500 health, 303 social, 1168 science) first and fourth year students who were attending a public university between April 2015 and August 2015 were included in this study (Table 1). Sample selection criteria were as follows: i- Being a first or last year student studying at the faculties of XXXXXX University, ii-Reading and understanding Turkish, iii-Volunteering to participate in the research.

Table 1: Sample Distribution of the Study

Areas	Faculties	First grade n	Fourth grade n	Total
Science	Faculty of Education	208	74	282
	Faculty of Science	63	67	130
	Faculty of Law	124	15	139
	Faculty of Economics and Administrative Sciences	268	151	419
	Faculty of Engineering	104	94	198
Health	Faculty of Dentistry	47	25	72
	Faculty of Pharmacy	38	7	45
	Faculty of Nursing	127	39	166
	Faculty of Health Sciences	40	50	90
	Mdical Faculty	94	33	127
Social	Faculty of Literature	66	112	178
	Faculty of Fine arts	39	44	83
	Sports Science Faculty	5	6	11
	Ankara State Conservatory	15	16	31
	Total	1,238	733	1,971

Data collection instruments

Semi-structured questionnare

This semi-structured questionnaire [including socio-demographic data (e.g., age, school grade, marital status, place of residence, cohabitation, parents' educational status and profession, choice of profession, and emotional intelligence and leadership training during their education)], emotional intelligence scale, and leadership orientations scale were used to determine each student's emotional intelligence and leadership orientations.

Emotional Intelligence Scale

The Emotional Intelligence Scale was developed by Reuven Bar-on (Bar-On, 2006) in order to determine the emotional intelligence levels of students. Acar (Tekin, 2001) performed the reliability and validity studies of this scale in Turkey. This scale is a five-point Likert-type scale consisting of 88 items. The scale includes the following five sub-dimensions: "Personal Skills," "Interpersonal Skills," "Compatibility," "Coping with Stress," and "General Mood State." Some items in the scale were scored as "1-Strongly Agree/5-Strongly Disagree", while others were scored as "5-Strongly Agree/1-Strongly Disagree" in the opposite direction. The sum of the scores of all the items in the scale is the total scale score. The total of items that make up the sub-dimension gives the total sub-dimension score. As the total score obtained from the scale increases, the level of emotional intelligence increases. In the reliability analysis of the original scale, Cronbach alpha reliability coefficient was 0.92. Cronbach's alpha reliability coefficients for the sub-dimensions of the scale were as follows: Personal Skills: 0.83, Interpersonal Skills: 0.77, Compatibility: 0.65, Coping with Stress: 0.73, and General Mood: 0.75 (Tekin, 2001). In the current study, the emotional intelligence Cronbach alpha reliability coefficient was 0.935. Cronbach's alpha reliability coefficients for the sub-dimensions of the scale were as follows: Personal Skills: 0.877, Interpersonal Skills: 0.849, Compatibility: 0.650, Coping with Stress: 0.720, and General Mood: 0.819.

Leadership Orientation Scale

The Leadership Orientation scale was developed by Lee G. Bolman and Terrence E. Deal (Bolman & Deal, 1990) in order to determine the orientation of the leadership of university students. This scale was tested in Turkey by Dereli (Dereli, 2003) for its validity and reliability. The scale is a five-point Likert type scale that consists of 32 items. There are four sub-dimensions in the scale: human-based leadership, structural leadership, political leadership, and charismatic leadership. The total score of all items in the scale is the total scale score, while the sum of the items that make up the sub-dimension gives the total sub-dimension score. A high score on this scale indicates that the person always exhibits leadership qualities, while a low score indicates that the person never shows leadership qualities. The Cronbach alpha value of the original leadership orientations scale was as high as 0.875 (Dereli, 2003). In the current study, the leadership orientation Cronbach alpha reliability coefficient was determined to be 0.933. The Cronbach's alpha reliability coefficients of the sub-dimensions were 0.770 for structural leadership, 0.833 for human-based leadership, 0.809 for political leadership, and 0.822 for charismatic leadership.

Analysis of the data

Data were evaluated using IBM SPSS Statistics 23 package program. The Kolmogorov Smirnov test was used to determine the normality of the data distribution. Data were evaluated using descriptive statistics (i.e., frequency, percentage, mean, standard deviation, median), Student's t test, Mann-Whitney U test, and the Spearman Correlations test. Statistical significance was accepted as values of $p < 0.05$.

Ethical consideration

A permit was obtained from the Ethics Committee of the relevant university (dated 15.04.2015, number GO 15/282-19) in order to conduct this study. At the same time, written permission was obtained from the faculty and conservatory administrators of the university where the study was conducted, and an informed consent form was obtained from the students who agreed to participate in the study.

RESULTS

It was determined that 43.2% of the students were between the ages of 20-22, 67.7% were women, and 32.3% were men. In addition, 62.8% of the students were in the first grade, most (96.9%) of them were single, and 71.8% of them spent their lives mostly in the 'province.' Of the students, 34.9% of their mothers were primary school graduates, and 41.6% of their fathers received university or higher education. A great majority of the students (80.1%) who participated in this study stated that the economic status of their families was moderate (Table 2).

Table 2. Distribution of Some Socio-Demographic Characteristics of the Students (n = 1971)

Socio-Demographic Characteristics	Health (n=500)		Social (n=303)		Science (n=1168)		Total (n=1971)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Age								
Under 20	183	36.6	65	21.5	379	32.4	627	31.8
20-22 Age	190	38.0	131	43.2	530	45.4	851	43.2
23 Years and Over	127	25.4	107	35.3	259	22.2	493	25.0
Gender								
Female	377	75.4	221	72.9	737	63.1	1335	67.7
Male	123	24.6	82	27.1	431	36.9	636	32.3
Grade								
1st	346	69.2	125	41.3	767	65.7	1238	62.8
4th	154	30.8	178	58.7	401	34.3	733	37.2
Marital status								
Single	485	97.0	289	95.4	1136	97.3	1910	96.9
Married	4	0.8	4	1.3	11	0.9	19	1.0
Cohabitation+Other	11	2.2	10	3.3	21	1.8	42	2.1
Residency								
Province	355	71.0	240	79.2	820	70.2	1415	71.8
District+village	145	29.0	63	20.8	348	29.8	556	28.2
Educational level of the mother	49		20		97		166	
Literate or not	9.8		6.6		8.4		8.5	
Primary education	176		94		418		688	
Secondary education	35.2		31.0		35.8		34.9	
University or higher	139		111		372		622	
	27.8		36.6		31.8		31.6	
	136		78		281		495	
	27.2		25.7		24.1		25.1	
Educational level of the father	25		9		27		61	
Literate or not	5.0		3.0		2.3		3.1	
Primary education	106		54		242		402	
Secondary education	21.2		17.8		20.7		20.4	
University or higher	144		117		428		689	
	28.8		38.6		36.6		35.0	
	225		123		471		819	
	45.0		40.6		40.3		41.6	
Family Economic Status								
Low	59		50		186		295	
Middle	11.8		16.5		15.9		15.0	

High	415	233	930	1578
	83.0	76.9	79.6	80.1
	26	20	52	98
	5.2	6.6	4.5	5.0

The total emotional intelligence score of the students was 3.58 ± 0.40. The difference in the mean score for coping with stress was significant with regards to departments ($p < 0.05$). The mean score of the students in the field of health (3.09 ± 0.56) was significantly higher than the average score of the students in the science field (3.02 ± 0.53). The total leadership orientation point average of the students was 3.63 ± 0.57. The difference between the political leadership and charismatic leadership score averages according to departments was significant ($p < 0.05$). In the political leadership sub-dimension, the mean score of the students in the field of science (3.36 ± 0.68) was significantly higher than the average score of the students in the health field (3.29 ± 0.71). In the charismatic leadership sub-dimension, the average score of the students in the social field (3.56 ± 0.70) was significantly higher than the average score of the students in the health field (3.41 ± 0.70). Based on the departments in which the students were educated, there were no significant differences between the emotional intelligence total score, interpersonal skills, personal skills, adaptability, and general mood sub-dimensions, as well as leadership orientations total score, human-based leadership, and structural leadership sub-dimension mean scores ($p > 0.05$).

There is a moderately positive significant relationship between the interpersonal skills sub-dimension score and the leadership orientation total score and the human-based leadership score; between the personal skills sub-dimension score and the leadership orientation score and sub-dimensions scores; between the compatibility sub-dimension score and the leadership orientations score and the structural leadership and the human-based leadership sub-dimensions scores; and between the general mood sub-dimension score and the leadership orientations score and the structural leadership, human-based leadership and charismatic leadership sub-dimensions scores ($p < 0.05$; Table 3).

Table 3. Distribution of Students' Emotional Intelligence and Leadership Orientation Mean Scores (n = 1971)

	Health (n=500) Mean±SD	**Social (n=303) Mean±SD**	**Science (n=1168) Mean±SD**	**Total (n=1971) Mean±SD**	**F**	**p**	**Difference (Tukey)**
Emotional intelligence	3.58±0.37	3.61±0.40	3.57±0.42	3.58±0.40	1.388	0.250	-
Interpersonal Skills	3.90±0.47	3.93±0.51	3.88±0.55	3.90±0.53	1.006	0.366	-
Personal abilities	3.60±0.45	3.67±0.49	3.62±0.51	3.63±0.50	1.729	0.178	-
Compatibility	3.46±0.39	3.51±0.47	3.46±0.44	3.46±0.43	1.795	0.166	-
Coping with Stress	3.09±0.56	3.06±0.59	3.02±0.53	3.05±0.55	3.162	**0.043***	1-3
General Mood	3.74±0.54	3.75±0.62	3.76±0.61	3.75±0.59	0.152	0.859	-
Leadership Orientations	3.58±0.59	3.66±0.60	3.64±0.56	3.63±0.57	2.724	0.066	-
Human Based Leadership	3.92±0.62	3.95±0.68	3.95±0.62	3.94±0.63	1.059	0.347	-
Structural Leadership	3.69±0.65	3.75±0.67	3.74±0.61	3.73±0.63	0.460	0.631	-
Political Leadership	3.29±0.71	3.39±0.72	3.39±0.65	3.36±0.68	3.536	**0.029***	1-3
Charismatic Leadership	3.41±0.70	3.56±0.70	3.50±0.69	3.49±0.69	4.773	**0.009***	1-2

There is a moderately positive significant relationship between the emotional intelligence score of the students in the social field and the leadership orientation score and the scores of human-based leadership and charismatic leadership ($p < 0.05$; Table 3). There is a moderately positive significant relationship between the interpersonal skills sub-dimension score and the leadership orientations score and the human-based leadership sub-dimension score; between the personal skills sub-dimension and the leadership orientation score and the charismatic leadership sub-dimension score; and between the compatibility sub-dimension score and the leadership orientations score and the human-based leadership sub-dimension score ($p < 0.05$; Table 3).

There is a moderately positive significant correlation between the emotional intelligence score, leadership orientation score, structural leadership, and human-based leadership sub-dimensions scores of the students in the science field ($p < 0.05$; Table 4). There is a moderately positive significant relationship between the interpersonal skills sub-dimension score and the human-based leadership sub-dimension score; between the personal skills sub-dimension score and the leadership orientation score; and between the general mood sub-dimension score and the leadership orientations score ($p < 0.05$; Table 4).

Table 4. Analysis of the Relationship between Students' Emotional Intelligence and Sub-Dimensions, and Leadership Orientations and Sub-Dimensions (n=1971)

			Leadership Orientations	Structural Leadership	Human Based Leadership	Political Leadership	Charismatic Leadership
HEALTH	**EMOTIONAL INTELLIGENCE**	r	.540**	.509**	.557**	.417**	.436**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
	Interpersonal Skills	r	.422**	.374**	.554**	.278**	.307**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
	Personal abilities	r	.508**	.468**	.456**	.438**	.435**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
	Compatibility	r	.465**	.478**	.447**	.370**	.357**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
	Coping with Stress	r	.264**	.266**	.284**	.185**	.207**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
	General Mood	r	.467**	.441**	.472**	.339**	.407**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
SOCIAL	**EMOTIONAL INTELLIGENCE**	r	.473**	.398**	.489**	.345**	.405**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
	Interpersonal Skill	r	.431**	.332**	595**	.250**	.320**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
	Personal abilities	r	.416**	.323**	.352**	.341**	.418**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
	Compatibility	r	.408**	.387**	.402**	.299**	.327**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
	Coping with Stress	r	.173**	.198**	.135**	.151**	.115**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
	General Mood	r	.357**	.291**	.388**	.254**	.301**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
S	**EMOTIONAL**	r	.452**	.408**	.441**	.361**	.359**

	INTELLIGENCE	p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
	Interpersonal Skill	r	.336**	.302**	.421**	.214**	.235**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
	Personal abilities	r	.431**	.369**	.375**	.373**	.377**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
	Compatibility	r	.382**	.386**	.365**	.318**	.263**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
	Coping with Stress	r	.202**	.199**	.154**	.181**	.166**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
	General Mood	r	.400**	.342**	.384**	.312**	.350**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
TOTAL	**EMOTIONAL INTELLIGENCE**	r	.475**	.429**	.474**	.370**	.384**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
	Interpersonal Skill	r	.369**	.322**	.477**	.233**	.264**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
	Personal abilities	r	.446**	.384**	.389**	.382**	.397**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
	Compatibility	r	.406**	.407**	.390**	.326**	.296**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
	Coping with Stress	r	.210**	.215**	.182**	.173**	.165**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**
	General Mood	r	.408**	.356**	.404**	.307**	.355**
		p	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**

*r: Pearson Correlation *:p<0.05 **:p<0.001*

There is a moderate, positive, and significant relationship between the emotional intelligence score of the students and the leadership orientation score, the structural leadership, and the human-based leadership sub-dimensions score ($p < 0.05$; Table 4). There is a moderately positive significant relationship between the interpersonal skills sub-dimension score and the human-based leadership sub-dimension score; between the personal skills sub-dimension score and the leadership orientation score; between the compatibility subscale score and the leadership orientations score and the structural leadership sub-dimension score; and between the general mood sub-dimension score and the leadership orientations score and the human-based leadership sub-dimension score ($p < 0.05$; Table 4).

DISCUSSION

In recent years, the goals and objectives of education and the educator have evolved. Due to rapid advances in scientific knowledge, it is believed that students should now aim to gain an ability for lifelong learning as well as to master current scientific knowledge (Johnson, 2015). The characteristics and abilities of generation Z students will make obtaining these goals possible (Altunbay & Bıçak, 2018). These students use technology very well and interpret the information they obtain by dealing with more than one subject at the same time. In parallel, universities and academic institutions are expected to gradually equip their students with autonomy, access to knowledge, and critical perspective (Johnson, 2015). Emotional intelligence (Antoñanzas et al., 2014) and leadership (Lacerenza, Reyes, Marlow, Joseph, & Salas, 2017) play a key role in the acquisition of these skills in education and training.

Emotional intelligence is among the goals of higher education as it is an important factor that can determine success and performance in professional and academic life (Wijekoon et al., 2017). It has been

reported that universities should be safe environments for the development of emotional intelligence (N. Humphrey, Curran, Morris, Farrell, & Woods, 2007). In the current study, there were no significant differences between the emotional intelligence total scores with respect to different departments. Although not significant, it is important to note that the average score of the "emotional intelligence-coping with stress" sub-dimension of the students in the field of health was higher than that of the students in the science field (Table 4). Similar to the results of the current study, results in the literature indicate that there was no difference between the emotional intelligence levels of students studying in different departments (Büyükşalvarcı & Gündoğan, 2018; Özdemir & Dilekmen, 2016). We believe that the findings we obtained from our research are not surprising for our university. Our university and our academic staff contribute to the increase in emotional intelligence levels by creating stronger teaching and learning environments for each student, regardless of their field.

Leadership orientation in university students is defined as a persuasion ability in interpersonal relations, a vision beyond student responsibility, and a motivation tool that can be applied throughout their education in order to achieve their goals (Cengiz & Güllü, 2018). In the current study, there was no significant difference between the leadership orientations total score with regards to the different departments. However, students in the science field had higher mean scores in the "political leadership" sub-dimension of leadership orientation compared to the students in the field of health. Further, students in the social field had a higher mean score in the "charismatic leadership" sub-dimension of leadership orientation compared to the students in the field of health (Table 4). The study of Cengiz and Güllü (Cengiz & Güllü, 2018) revealed that there was no significant difference between the "leadership orientation" sub-dimensions of students who received a sports education. Similarly, the study of Sezer et al. (Sezer & Kahraman, 2018) reported no significant differences between the "leadership orientation" sub-dimensions of students in different departments. Similar to the results of the current study, there are studies in the literature indicating that there is a difference in leadership orientations among departments (Aydın, 2016; Öztürk, 2017). In the "charismatic leadership" sub-dimension, the higher scores of the students in the social field compared to those in the health field may be due to the fact that "charismatic leadership" is based on meaning and belief issues, and the social sciences field is especially effective in teaching this to students, as meanings and beliefs are produced by people. The results of the current study may be different from those reported in the literature due to the fact that the current study includes all departments and faculties of the university, includes a large sample population, and the sample groups are different from those in published studies.

The fact that emotional intelligence can be developed at any age is a great opportunity for leaders who want to achieve success (Hotamışlı and Efe, 2015). In this context, good leaders are required to understand their own emotions and emotions of others and be able to regulate their own emotions when interacting with others (Wong and Law, 2002). Examining emotional intelligence and leadership tendencies in the present study, a significant relationship was determined between emotional intelligence and leadership tendencies in students studying in the health, social and science areas (Table 4). The reasons that there is a relationship between emotional intelligence and leadership orientations of students studying in the fields of health, social, and science can be summarized as follows:

i. students are aware of both their own emotions as well as other individuals' emotional intelligence,
ii. students are able to perceive and evaluate correctly thanks to these abilities,
iii. students are able to understand the expectations, needs, strengths, and weaknesses of both themselves and other individuals, which increases their leadership orientations along with the qualifications of guidance and leadership.

Leadership (Pizzirani, O'Donnell, Skouteris, Crump, & Teede, 2019) and emotional intelligence (Nightingale, Spiby, Sheen, & Slade, 2018) are two important characteristics that health professionals should have. These characteristics are important in maintaining the best practices in the health sector

and all clinics where health services are provided and in improving patient outcomes. In the current study, there was a significant relationship between emotional intelligence and leadership orientations of students in the field of health (Table 4; $p < 0.05$). Similar to the results of the current study, there are studies in the literature showing that there is a statistically significant difference between the leadership and emotional intelligence scores of students studying in the field of health (Benson, Martin, Ploeg, & Wessel, 2012; Smith et al., 2018). As the emotional intelligence levels of students in the field of health increase, their leadership orientation also increases. The underlying reason may be that practices such as the clinical learning environment, simulations, and standard patient education that accompany the students' theoretical knowledge throughout their education also support their emotional intelligence and leadership development. In the current study, most of the students stated that they did not take formal emotional intelligence and leadership lessons. This result indicates that the emotional intelligence and leadership development of students should be integrated into their education and throughout their career. University life is considered to be a critical stage in the development of emotional intelligence and leadership. Developing potential leadership characteristics of candidate individuals, working in the fields where health services are provided, and recognizing and managing their own feelings and the feelings of others in the process of growing up is thought to prove effective in improving patient care outcomes, forming and maintaining a multidisciplinary team, and reducing care costs.

Cognitive processes depend on cognitive abilities. However, the effectiveness of these cognitive processes depends on the presence of emotional abilities (Taskiran & Köse, 2016). University life and education are of key importance in raising leaders with emotional intelligence. In the current study, a significant relationship was found between social students' emotional intelligence and leadership orientations (Table 4; $p < 0.05$). The reasons for the increase in leadership orientation in parallel with the increase in emotional intelligence levels of students in the social field may be as follows:

i. the fact that people are the focus of the students throughout their education and professional life, and because of this, emotions cannot be neglected,
ii. therefore, people may need guidance for their feelings,
iii. for these reasons, the focus of a social student's education is centered on developing emotional intelligence and leadership.

It is thought that a university education, which plays a central role in the transition from student life to professional life, is effective in increasing leadership orientations as the emotional intelligence levels of students in the field of science increase. Laboratory practices, which are a cornerstone of education in the field of science, are also thought to contribute to this development.

Emphasis should be placed on the importance of emotional intelligence for university students to prepare for life (Şencan, Fidan, & Bayraktar, 2018), and emotional intelligence is also needed for leadership development (Haight et al., 2017). We believe the current study will make a significant contribution to the literature, since it includes all students in the health, social, and science fields, and because the sample size is more comprehensive and wider than that of previous studies. We believe that by integrating emotional intelligence and leadership lessons in classes in all departments, it will be possible to reach the desired levels, as they will foster increasing emotional and leadership development of students.

LIMITATIONS

This study had two limitations. First, the study was carried out as descriptive comparative and this design measured students' emotional intelligence and leadership orientations. It was based only self-reporting survey. Second, due to the nature of the descriptive study, there is no causality among the

measured variables, only the correlation is examined, and the study results may not be generalized because the study was conducted in a particular group.

CONCLUSION AND RECOMMENDATIONS

In conclusion, in the current study, it was determined that the emotional intelligence levels of the students studying in different departments of the university are high, and that there is a significant relationship between emotional intelligence and leadership orientation. Evaluating the level of emotional intelligence and leadership orientations of the students before beginning their professional lives is thought to be effective both for the improvement of individual development and student potential at the last point of the education system, and may lead to revisions in curriculum. In addition, as a result of the current study, it is thought that university lecturers who direct university life should also be decisive in gaining the necessary training and skills in emotional intelligence and leadership. We believe that the current study, which has a large sample size, and includes all faculties and students of a public university for the first time, has the potential to be a reference for similar studies in the future.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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