



Original Article

Determination of meaning in life among nursing students based on temperament characteristics

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Abstract

Objectives: The aim of this study was to determine meaning in life among nursing students based on their sociodemographic and temperament characteristics.

Methods: The population and sample of this descriptive study consists of 442 volunteer nursing students who were studying in their 1st, 2nd, 3rd, and 4th year during the 2017–2018 academic year at the Health Sciences Faculty of Nursing Department of a public university in the Aegean Region of Turkey. The Temperament Evaluation of the Memphis, Pisa, Paris, and San Diego Auto-questionnaire (TEMPS-A), The Meaning in Life Questionnaire, and a personal information form were used to collect data. Numbers, percentages, Mann-Whitney U, Kruskal-Wallis H, Spearman Correlation Analysis was used for data evaluation.

Results: The subscale of the Presence of Meaning in Life was found to have a negative and significant correlation with TEMPS-A subscales of depressive, cyclothymic, and irritable temperaments; and a positive and significant correlation with the subscale of hyperthymic temperament ($p < 0.05$). A positive and significant correlation was found between the subscale of the Search for Meaning in Life and TEMPS-A subscales of depressive, cyclothymic, irritable, and anxious temperaments ($p < 0.05$).

Conclusion: There is a statistically significant correlation between dominant temperament characteristics of nursing students and the Presence of Meaning in Life and the Search for Meaning in Life. Course content that increases purpose and fulfillment in life and enhances positive personality traits should be created for the first years of nursing education.

Keywords: Life; nursing; nursing students; temperament.

During the university period, in which goals and plans are determined for the future, individuals question their lives, begin to acquire a sense of responsibility in life, and find answers to many important questions about themselves. Students who graduated from high school and attended university continue to develop their identity and independence during this period, start looking for the meaning in life, and want to feel that they have a purpose in life.^[1,2]

Meaning in life refers to an individual's sense of finding a purpose in life and progressing towards this goal.^[3] This concept has been examined in two subscales as "presence of meaning" and "search for meaning".^[4] The presence of meaning in life in-

dicates to what extent people consider their lives significant, make sense of and understand their lives, and to what extent they feel as if they have "goals/duties" in life.^[5] The search for meaning in life is the natural and healthy side of life that encourages people to approach new opportunities and pursuits, and enables them to understand and organize their own experiences.^[6]

Individuals' perspectives on living conditions and life events may differ according to personality traits and temperament as well as their positive or negative evaluation of events.^[7] It may be important and intriguing to reveal how these differences vary according to their predominant temperament traits.

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Submitted Date: October 31, 2019 **Accepted Date:** April 25, 2021 **Available Online Date:** October 04, 2021

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What is presently known on this subject?

- The physical and psychological health of nursing students will affect their ability to care for patients, which is quite important as they have very important roles in providing healthcare and assistance to individuals. Health and happiness are connected to having meaning in life in terms of different temperament characteristics as individuals who consider life meaningful are happy and productive, while those who find life meaningless will be unhappy, and have a lower level of productivity.

What does this article add to the existing knowledge?

- The nursing students included in the study had found an above average level of presence of meaning in life, than were searching for meaning in their life. Most of the nurses had a cyclothymic temperament, followed by hyperthymic temperament. There was a statistically significant correlation between their dominant temperament characteristics, the presence of meaning in their life and a search for meaning in life.

What are the implications for practice?

- Course content that increases purpose and fulfillment in life and enhances positive personality traits of nursing students should be created for the first years of their education. Thus, the holistic health of nursing students will be positively affected, and they can be more productive and give higher quality care in the future. This study was conducted to determine the meaning in life among nursing students based on their sociodemographic and temperament characteristics.

Temperament characterizes both dynamic and emotional sides of human behaviors through the process of communication.^[8] That is, temperament describes people's emotional balance. Temperament traits vary from individual to individual such as frequently getting angry or bored, being active or inactive, or feeling cheerful.^[9,10]

Nurses are an important part of a healthcare team and their most important purpose in life should be to protect and improve human health. For individuals in this profession to have a positive perspective, be friendly, compassionate, helpful and patient, care about ethical values, have strong empathy, and be able to communicate comfortably; nurses need to be able to understand the value attached to human life as well as have some specific temperament characteristics. Ayan (2017) has stated that a tendency for a positive personality increases life satisfaction and the presence of meaning in life, while a tendency for a negative personality increases the search for meaning in life.^[11] In addition, the presence of meaning in life allows people to experience less psychological stress by reducing burnout and negative moods.^[12]

This study aimed to determine the meaning in life among nursing students based on their sociodemographic and temperament characteristics. There has been no study on nursing students' temperament characteristics and their understanding of meaning in life, therefore this is an important study that can contribute to the literature.

The study seeks for answers to the following questions:

- What are the nursing students' temperament characteristics and levels of presence of meaning in life and search for meaning in life?
- What are the nursing students' temperament characteristics and levels of presence of meaning in life and search for meaning in life according to their sociodemographic characteristics?

- Is there a relationship between the nursing students' temperament characteristics and senses of meaning in life?

Materials and Method

Study Type

This is a descriptive study.

Participants

The population of this study consisted of 600 nursing students who were in their 1st, 2nd, 3rd, and 4th years at a public university in the Aegean Region of Turkey during the 2017–2018 spring semester. No sampling selection was performed in the study, which aimed to reach the entire population. A total of 442 (rate of participation= 74%) nursing students who agreed to participate in the study constituted the sample of the study.

Data Collection Tools

The data was collected using a personal information form, the Temperament Evaluation of the Memphis, Pisa, Paris and San Diego Auto-questionnaire (TEMPS-A), and the Meaning in Life Questionnaire (MLQ).

Personal Information Form

The form was prepared by the researchers in line with the literature, and consisted of questions about nursing students' sociodemographic and personal characteristics.

Temperament Evaluation of the Memphis, Pisa, Paris and San Diego Autoquestionnaire (TEMPS-A)

The scale was developed by Akiskal et al.^[13] to evaluate the dominant affective temperament and its subtypes. Its Turkish validity and reliability study was conducted by Vahip et al. (2005).^[14] This is a self-report Likert-type scale, where items are answered as "true" and "false", and considering the person's entire life. The scale consisted of five subscales, including depressive, cyclothymic, hyperthymic, irritable, and anxious temperaments. The cut-off points for evaluating depressive (18 items), cyclothymic (19 items), hyperthymic (20 items), irritable (18 items), and anxious (24 items) temperaments were 13, 18, 20, 13, and 18 points, respectively. If the score obtained from each subscale was above the cut-off point calculated for that subscale, then the person was assumed to have that temperament dominantly.^[14] In this study, the Cronbach's alpha coefficient of the scale was determined as 0.90.

Meaning in Life Questionnaire (MLQ)

The scale was developed by Steger et al.^[4] (2006) to evaluate whether individuals understood the meaning of life in general. Its Turkish validity and reliability study was conducted by Demirdağ and Kalafat^[15] (2015). The scale consisted of

two subscales: presence of meaning and search for meaning, where each subscale total score ranged between 5 and 35. As these two subscales were conceptually separate, an overall total score was not obtained for the scale.

A high scale score indicates higher presence of meaning and search for meaning in life. In this study, the Cronbach's alpha internal consistency coefficient was found as 0.83 for the presence of meaning subscale and 0.87 for the search for meaning subscale.

Data Collection

The scale forms were administered to the students when they were available in their classes according to their curriculum. The nursing students were informed about the purpose and method of the study, and those who agreed to participate in the study were included in the study. The students took around 15 minutes to fill out the forms.

Statistical Analysis

Statistical analyzes were performed using SPSS 20.0 package program (IBM Corp. Released 2011. IBM SPSS Statistics for Windows, Version 20.0. Armonk, NY: IBM Corp.). The results were interpreted using frequency tables and descriptive statistics. Nonparametric methods were used for measurement values without normal distribution. In accordance with nonparametric methods, the "Mann-Whitney U" test (Z-table value) was performed to compare measurement values of two independent groups, and the "Kruskal-Wallis H" test (χ^2 -table value) to compare measurement values of three or more independent groups. Bonferroni correction was applied for paired comparisons of variables that differed significantly for three or more groups. Spearman correlation coefficient was used to examine the relationship between measurement values without normal distribution. All data was evaluated at the significance level of $p < .05$.

Ethical Considerations

The study was carried out in accordance with the Declaration of Helsinki. For conducting the study, an ethical approval was obtained from the university's Non-Invasive Research Ethics Committee (number: 60116787-020/14699, date: 26.02.2018). In addition, a written permission was obtained from the faculty deanship of the university where the study was conducted and from the owners of the scales used in the study. Verbal consent was obtained from all students included in the study.

Results

Nursing Students' Sociodemographic Characteristics and MLQ Scores According to Sociodemographic Variables

A total of 442 nursing students participated in the study. The average age of the students was 20.36 ± 1.72 years. Of them,

201 (45.5%) were 19–20 years old, 145 (32.8%) were 21–22 years old, 53 (12.0%) were 18 years old, and 43 (9.7%) were 23 years and above; 374 (84.6%) were female and 68 (15.4%) were male. In addition, 126 (28.5%) of the nursing students were in their 4th year, 125 students (28.3%) were in 1st year, 123 (27.8%) were 2nd year, and 68 (15.4%) were in their 3rd year of study. Moreover, 343 (77.6%) had 1–3 siblings, 69 (15.6%) had 4 or more siblings, and 30 (6.8%) were the only child in the family. In terms of parental attitudes towards children, 225 (50.9%) had protective parents, 108 (24.4%) had democratic parents, 48 (10.9%) had authoritarian parents, 43 (9.7%) had democratic-protective parents, and 18 (4.1%) had disinterested parents. Furthermore, 385 (87.1%) of the students had no depressive symptoms and 297 (67.2%) had not suffered from psychological trauma.

There was a statistically significant difference between the nursing students' presence of meaning subscale mean scores according to gender, and in their search for meaning subscale mean scores for the number of siblings and parental attitude. Additionally, There was a statistically significant difference between their presence of meaning and search for meaning subscales mean scores according to depressive symptoms; and between their presence of meaning subscale mean scores for psychological trauma ($p < 0.05$) (Table 1).

No statistically significant difference was found between the nursing students' presence of meaning subscale mean scores according to gender and year of study; or between their search for meaning subscale mean scores according to year of study, number of siblings, parental attitude towards children, or psychological trauma ($p > 0.05$) (Table 1).

Nursing Students' TEMPS-A Scores According to Sociodemographic Variables

Table 2 presents the nursing students' TEMPS-A scores according to sociodemographic variables. A statistically significant difference was determined between their hyperthymic, irritable and anxious temperament subscales mean scores according to gender ($p < 0.05$). A statistically significant difference was also found between their depressive and irritable temperament subscales mean scores in terms of parental attitudes, between their depressive, cyclothymic, hyperthymic, irritable, and anxious temperament subscales mean scores according to depressive symptoms; and between their depressive, cyclothymic, irritable and anxious temperament subscales mean scores according to psychological trauma ($p < 0.05$).

Nursing Students' MLQ and TEMPS-A Mean Scores

Table 3 presents the nursing students' MLQ and TEMPS-A mean scores. Their mean scores were 25.12 ± 6.33 and 22.74 ± 7.00 for the presence of meaning and search for meaning subscales, respectively. In addition, their mean scores were 10.13 ± 4.69 , 9.28 ± 4.16 , 4.45 ± 3.74 and 8.52 ± 5.18 for the depressive, hyperthymic, irritable, and anxious subscales, respectively.

Table 1. Distribution of Nursing Students' MLQ Scores according to their Sociodemographic Variables (n=442)

Variable	n	MLQ Subscales	
		Presence of Meaning	Search for Meaning
		Median [Min-Max]	Median [Min-Max]
Gender			
Female	374	26.0 [5.0–35.0]	23.0 [5.0–35.0]
Male	68	24.5 [8.0–35.0]	25.5 [5.0–35.0]
Statistical analysis*		Z=-1.286	Z=-2.054
Probability		p=0.198	p=0.040**
Class			
1 st Class	125	25.0 [11.0–35.0]	25.0 [7.0–35.0]
2 nd Class	123	25.0 [5.0–35.0]	23.0 [5.0–35.0]
3 rd Class	68	25.5 [8.0–35.0]	24.0 [5.0–35.0]
4 th Class	126	27.0 [5.0–35.0]	22.0 [5.0–35.0]
Statistical analysis*		$\chi^2=2.869$	$\chi^2=6.186$
Probability		p=0.412	p=0.103
Number of siblings			
One child	30	23.5 [10.0–35.0]	22.0 [5.0–35.0]
1–3 siblings	343	25.0 [5.0–35.0]	24.0 [5.0–35.0]
4 siblings and above	69	27.0 [8.0–35.0]	23.0 [5.0–35.0]
Statistical analysis*		$\chi^2=7.698$	$\chi^2=0.043$
Probability		p=0.021**	p=0.979
Disinterested			
İlgisiz	18	23.0 [12.0–35.0]	24.5 [5.0–35.0]
Democratic	108	25.5 [5.0–35.0]	23.0 [5.0–35.0]
Authoritarian	48	22.0 [5.0–35.0]	22.0 [5.0–35.0]
Protective	225	26.0 [8.0–35.0]	24.0 [5.0–35.0]
Democratic and protective	43	27.0 [19.0–35.0]	23.0 [5.0–35.0]
Statistical analysis*		$\chi^2=11.739$	$\chi^2=2.547$
Probability		p=0.019**	p=0.636
Depressive symptom			
Yes	57	21.0 [10.0–35.0]	26.0 [5.0–35.0]
No	385	26.0 [5.0–35.0]	23.0 [5.0–35.0]
Statistical analysis*		Z=-5.880	Z=-2.408
Probability		p=0.000**	p=0.016**
Mental trauma			
Yes	145	24.0 [8.0–35.0]	25.0 [5.0–35.0]
No	297	26.0 [5.0–35.0]	23.0 [5.0–35.0]
Statistical analysis*		Z=-2.855	Z=-1.780
Probability		p=0.004**	p=0.075

MLQ: Meaning in Life Questionnaire; Min: Minimum; Max: Maximum; **p<0.05. *The "Mann-Whitney U" test (Z-table value) was performed to compare measurement values of two independent groups without normal distribution, and the "Kruskal-Wallis H" test (χ^2 -table value) to compare measurement values of three or more independent groups without normal distribution.

The Relationship between Nursing Students' MLQ and TEMPS-A Scores

A statistically significant negative correlation was found between the nursing students' mean scores on the presence of meaning, depressive, cyclothymic, irritable, and anxious subscales. A statistically significant positive cor-

relation was found between their mean scores on the presence of meaning and hyperthymic subscales. In addition, a statistically significant positive relationship was found between their mean scores on the search for meaning, depressive, cyclothymic, irritable, and anxious subscales (p<0.05) (Table 4).

Table 2. Distribution of Nursing Students' TEMPS-A Scores according to their Sociodemographic Variables (n=442)

Variable	n	TEMPS-A				
		Depressive	Cyclothymic	Hyperthymic	Irritable	Anxious
		Median [Min-Max]	Median [Min-Max]	Median [Min-Max]	Median [Min-Max]	Median [Min-Max]
Gender						
Female	374	5.0 [0.0–16.0]	10.0 [0.0–25.0]	9.0 [0.0–20.0]	4.0 [0.0–17.0]	8.0 [0.0–24.0]
Male	68	5.0 [0.0–14.0]	10.5 [0.0–18.0]	11.0 [0.0–19.0]	5.0 [0.0–17.0]	7.0 [0.0–19.0]
Statistical analysis*		Z=-0.877	Z=-0.244	Z=-2.765	Z=-2.077	Z=-2.340
Probability		p=0.381	p=0.808	p=0.006**	p=0.038**	p=0.019**
Parental attitude						
Disinterested	18	6.5 [3.0–16.0]	12.0 [2.0–18.0]	9.0 [1.0–17.0]	4.5 [0.0–15.0]	10.0 [0.0–23.0]
Democratic	108	5.0 [0.0–14.0]	9.0 [0.0–25.0]	10.0 [0.0–17.0]	4.0 [0.0–17.0]	7.0 [0.0–24.0]
Authoritarian	48	7.0 [0.0–13.0]	11.0 [1.0–18.0]	8.0 [2.0–17.0]	5.0 [0.0–15.0]	10.0 [0.0–21.0]
Protective	225	5.5 [0.0–16.0]	11.0 [0.0–18.0]	9.0 [0.0–20.0]	3.0 [0.0–17.0]	8.0 [0.0–23.0]
Democratic and protective	43	5.0 [1.0–15.0]	9.0 [0.0–19.0]	10.0 [2.0–17.0]	3.0 [0.0–12.0]	7.0 [0.0–21.0]
Statistical analysis*		$\chi^2=14.961$	$\chi^2=7.861$	$\chi^2=5.060$	$\chi^2=11.790$	$\chi^2=7.434$
Probability		p=0.005**	p=0.097	p=0.281	p=0.019**	p=0.115
Depressive symptom						
Yes	57	8.0 [0.0–16.0]	14.0 [0.0–19.0]	7.0 [2.0–18.0]	6.0 [0.0–17.0]	12.0 [0.0–23.0]
No	385	5.0 [0.0–16.0]	10.0 [0.0–25.0]	9.0 [0.0–20.0]	3.0 [0.0–17.0]	7.0 [0.0–24.0]
Statistical analysis*		Z=-5.049	Z=-5.654	Z=-2.734	Z=-4.845	Z=-5.393
Probability		p=0.001**	p=0.001**	p=0.006**	p=0.001**	p=0.001**
Mental trauma						
Yes	145	6.0 [0.0–16.0]	11.0 [0.0–18.0]	9.0 [0.0–20.0]	4.0 [0.0–17.0]	9.0 [0.0–23.0]
No	297	5.0 [0.0–16.0]	10.0 [0.0–25.0]	9.0 [0.0–19.0]	3.0 [0.0–17.0]	7.0 [0.0–24.0]
Statistical analysis*		Z=-4.611	Z=-3.252	Z=-1.292	Z=-2.428	Z=-3.482
Probability		p=0.001**	p=0.001**	p=0.196	p=0.015**	p=0.001**

Min: Minimum; Max: Maximum; **p<0.05. *The "Mann-Whitney U" test (Z-table value) was performed to compare measurement values of two independent groups without normal distribution, and the "Kruskal-Wallis H" test (χ^2 -table value) to compare measurement values of three or more independent groups without normal distribution.

Discussion

This study examined meaning in life among nursing students based on their dominant temperament characteristics. The study determined that nursing students had a higher positive mean score, above the moderate level, in the subscale of presence of meaning compared to the subscale of search for meaning. This result suggests that nursing students consider their lives important and meaningful and are aware of their goals and duties. This situation may positively affect their physical and mental health, creating a positive effect on the quality of patient care.

There are three basic ways a person can obtain meaning in life: to create work or do a job, to live through something or interact with another person, and to come face to face with a fate which cannot be changed, and to come out of a hopeless situation feeling positive.^[16]

The goals in self-realization, the way followed to reach these goals, the search for meaning in life, and the meaning given

in life are different for each temperament characteristic. There are external and internal factors that affect these characteristics; where the external factors include a person's social support network, economic status, familial and environmental conditions, and the internal factors which include gender and temperament. When these conditions come together properly, individuals' awareness of themselves and life increases which can balance a person's life. Some studies found no significant relationship between meaning in life among students according to gender.^[4,17–21] However, the present study found a statistically significant difference between the nursing students' meaning in life mean scores according to gender, where male students had higher search for meaning subscale mean scores than the females. Demirbaş Çelik^[22] (2016) found a higher level of presence of meaning in life among Females. Similarly, one study on the life purposes of university students has emphasized that female students obtained higher scores for both intrinsic and extrinsic purposes.^[23] Taş^[24] (2011) examined the meaning in life according to several variables, including

Table 3. Distribution of Nursing Students' MLQ and TEMPS-A Scores (n=442)

Scales	Mean	Standard Deviation	Median	Minimum	Maximum
MLQ					
Presence of Meaning	25.12	6.33	26.0	5.0	35.0
Search for Meaning	22.74	7.00	23.0	5.0	35.0
TEMPS-A					
Depressive	5.64	3.27	5.0	0.0	16.0
Cyclothymic	10.13	4.69	10.0	0.0	25.0
Hyperthymic	9.28	4.16	9.0	0.0	20.0
Irritable	4.45	3.74	4.0	0.0	17.0
Anxious	8.52	5.18	8.0	0.0	24.0

MLQ: Meaning in Life Questionnaire.

Table 4. Distribution of the Relationship between Nursing Students' MLQ and TEMPS-A Scores (n=442)

Correlation*		TEMPS-A				
		Depressive	Cyclothymic	Hyperthymic	Irritable	Anxious
MLQ						
Presence of Meaning	r	-0.304	-0.376	0.180	-0.347	-0.227
	p	0.0001**	0.0001**	0.0001**	0.0001**	0.0001**
Search for Meaning	r	0.193	0.246	0.011	0.144	0.196
	p	0.0001**	0.0001**	0.820	0.002**	0.0001**

*Normal dağılıma sahip olmayan iki nicel değişkenin birbiriyle ilişkilerinin incelenmesinde "Spearman" korelasyon katsayısı kullanılmıştır.

**p<0.05; YAÖ: Yaşamın Anlamı Ölçeği.

gender roles, and found higher levels of search for meaning in life among men. He also states that as women fulfill more responsibilities in their living spaces (such as domestic roles, work life, and social relations) and can express their feelings and thoughts more comfortably while performing these activities, they are more satisfied with their existing situations, causing them to search less for meaning in life. He also reports that men may feel more in search of meaning in life as they are expected to find jobs and create financial opportunities, so they cannot express their feelings comfortably in their social relationships. The present study also found that male nursing students had higher levels of search for meaning in life. This may be because of the perceptions of gender roles in Turkish society, where women are attributed more responsibilities in both domestic and work lives, making them search less for meaning in life. Unlike some studies on the effect of number of siblings on meaning in life, this study determined that nursing students with four or more siblings had a higher level of presence of meaning in life. Adler^[25] (2012) has stated that family experiences and relationships with siblings contribute to the development of lifestyle, determining our perceptions, thoughts, feelings and behaviors, and argued that the true meaning of life is to contribute to and cooperate with others. The result of this present study suggests that as the number of siblings increases in the family, family members struggle more

to meet their wishes and expectations in life and learn how to share their emotions and cooperate without having being selfish, and that these skills can accelerate the formation of their meaning in life.

Yükselel^[21] (2013) reported that young people with authoritarian parents have difficulty finding meaning in their existing life and search for a meaning in life for the future. Similar to the present study, Demir and Murat^[26] (2017) determined that children of authoritarian parents had lower presence of meaning subscale scores than those with protective, democratic, and protective-democratic parents. Authoritarian parental attitudes have negative effects on children and prevents their self-confidence, discouraging them from understanding their desires and feelings in life and in discovering the presence of meaning.

As another important result of this study, nursing students with depressive symptoms and psychological trauma had lower presence of meaning subscale scores. One study found that meaning in life is associated with less negative emotions (hopelessness, unhappiness, sadness, anxiety), creating a positive effect on mental health.^[27] Hedayati and Khazaei^[28] (2014) have also observed that individuals with higher scores of meaning in life have more hope, suggesting a negative relationship between depression and meaning in life. The present study, which has results supported by those in the literature,

suggests that the low meaning in life scores of nursing students with depressive symptoms and of those with a history of psychological trauma can be due to a loss in interest or pleasure in life and a sense of pointlessness.

Temperament is an important trait with an emotional aspect. There are different types of temperament. Individuals with a depressive temperament have rigid thinking and often self-blame, are shy and lack of self-confidence, whereas those with a hyperthymic temperament have more positive, creative and practical personality traits, need less sleep, have leadership characteristics, and are happy, social, and confident. Cyclothymic temperament refers to a variable mood and unstable energy levels, self-esteem and social relationship problems. Irritable temperaments share some common points with cyclothymic temperament. The difference between them is the very high energy accompanied by low empathy levels seen in individuals with an irritable temperament. Individuals with irritable temperament are skeptical and critical. While those with an anxious temperament are worried about life events and cannot stop thinking of negative consequences.^[9,10] Each individual has characteristics of more than one of these temperament types. However, they exhibit their dominant temperament by experiencing some temperament types more intensely.

This study determined that most of the nursing students had cyclothymic temperaments, followed by hyperthymic temperaments. Bahrami and Yousefi^[29] (2011) have stated that females have a belief that they cannot control anxiety. Due to this belief, females have more difficulty overcoming anxiety and have more emotional problems due to this anxiety. Blöink et al.^[30] (2005) have reported that males obtained higher scores on irritable temperament subscale than females. Vázquez et al.^[31] (2012) conducted a study with 5,170 participants, and found that males displayed more hyperthymic temperament than females, while females exhibited more anxious, depressive, and cyclothymic temperaments than males. Similar to those in the literature, the result of the present study suggests that both hyperthymic and irritable temperaments are more dominant among males and anxious temperament among women, supporting that gender may affect temperament.

Children who grow up in a family with democratic parental attitudes are generally individuals who have better communication, discussion, and reconciliation skills as well as a sense of responsibility and are good decision makers. Children of authoritarian parents are more likely to develop rebellious or dependent personalities, as they grow up in an environment where discipline is more important than independence.^[32,33] They are passive, timid, extremely sensitive, easily influenced by others, and exhibit unstable actions related to emotional hunger, ambition, and personal motives when social control is weak.^[34] Baer et al.^[35] (2015) examined the relationship between protective and intervening attitudes of mothers and their children's temperament characteristics, and found that children's ability to function socially decreased as their mothers' intervening attitudes increased. As stated in several studies in the literature, family environment is of great importance

in terms of children's temperament characteristics. In line with the literature, the present study determined that children of authoritarian families had more depressive and irritable temperaments than those of protective and democratic families. This also suggests that oppressive and restrictive attitudes of authoritarian families affect children's temperaments.

One study conducted with nurses in Japan using the TEMPS-A found that those with predominant anxious and depressive temperaments were more vulnerable to stress as well as physical and emotional effects of stress.^[36]

Karam et al.^[37] (2010) reported an anxious temperament as a strong determinant especially for anxiety and depressive disorders, and found that a hyperthymic temperament plays a protective role against many mental health disorders. They also determined that the prevalence of mental health disorders are less among those hyperthymic temperament than those with all other types of temperament. In parallel with this information, the present study found that depressive, cyclothymic, irritable, and anxious temperaments were more common among those with depressive symptoms, and hyperthymic temperament among non-depressive ones. This result shows the significant effect of temperament characteristics on mental health.

Structural characteristics such as temperament, personality, and unique abilities such as problem-solving skills allow individuals to cope with traumatic life events in a healthy way.^[38,39] This study determined that those who had experienced mental trauma had depressive, cyclothymic, irritable, and anxious temperaments more dominantly than those without mental trauma. As seen, negative life events can adversely affect individuals' temperaments.

This study also found a relationship between the nursing students' temperament characteristics and perception of meaning in life. As their presence of meaning subscale scores decreased, their depressive, cyclothymic, irritable, and anxious temperament subscale scores increased. In addition, as their presence of meaning subscale scores increased, their hyperthymic temperament subscale scores increased. Dembinska-Krajewska and Rybakowski^[40] (2014) found significant relationships between the temperament characteristics, belief of a meaninglessness in life, and suicidal behaviors among adolescents and adults. Frankl^[16] (2018) has argued that a sense of meaninglessness in life can cause pathological reactions and behaviors. Vázquez et al.^[41] (2018) have stated that individuals who attempted suicide displayed more anxious, irritable, cyclothymic, and depressive temperaments, and that their suicidal thoughts and hopelessness increased as their hyperthymic temperament subscale scores decreased.

Krok^[42] (2017) argues that young people who have personal success, sincere and satisfying relationships, religious values, and a good social environment often find more meaning in life. The author also states that these individuals have higher life satisfaction and positivity, and reports that a search for meaning in life is associated with negative situations. In the present study, as the nursing students' search for meaning sub-

scale scores increased, their depressive, cyclothymic, irritable, and anxious temperament scores increased. This is considered a reflection of the temperament traits of those who have not yet found meaning in life and continue to search for it.

Limitations

The data obtained is limited to the students in the nursing school where the study was conducted. Therefore, the data cannot be generalized to the entire population. In addition, the data collection tools used in the study are based on the students' self-report assessments.

Conclusion

In this study, nursing students had a positive, above the average level of presence of meaning; mostly had a cyclothymic temperament, referring to a variability in mood, followed by hyperthymic temperament, with a positive attitude towards life. There was a significant relationship between the nursing students' dominant temperament characteristics and levels of presence of and search for meaning in life.

By taking into account their temperament characteristics, nursing students should be supported and given counseling services throughout their university education in order to encourage them to take responsibility and gain good decision-making skills. Course content that increases purpose and fulfillment in life and enhances personality traits of nursing students should be created for the first years of their education. Thus, their holistic health will be affected positively, and they can be more productive and provide higher quality care in the future.

It may be suggested to compare the results by conducting similar studies with larger sample groups of nursing students from different regions and of students from different departments.

In Turkey, there is no study that evaluates the meaning in life and temperament characteristics in nursing students. Therefore, this is the first study on the subject, which will make a significant contribution to the literature.

Conflict of interest: There are no relevant conflicts of interest to disclose.

Peer-review: Externally peer-reviewed.

Authorship contributions: Concept – G.T.Y., E.A.; Design – G.T.Y., E.A., N.Ç.; Supervision – G.T.Y., E.A., N.Ç.; Fundings - G.T.Y., E.A., N.Ç.; Materials – G.T.Y., E.A., N.Ç.; Data collection &/or processing – G.T.Y., E.A., N.Ç.; Analysis and/or interpretation – G.T.Y., E.A., N.Ç.; Literature search – G.T.Y., E.A., N.Ç.; Writing – G.T.Y., E.A., N.Ç.; Critical review – G.T.Y.

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