

The relationship between decision making and gender roles of students studying in healthcare fields

Gulay Yildirim PhD, MSc¹  | Sukran Ertekin Pinar PhD, MSc² 

¹Department of Medical Ethics and the History of Medicine, Faculty of Medicine, Sivas Cumhuriyet University, Sivas, Turkey

²Faculty of Health Sciences, Sivas Cumhuriyet University, Sivas, Turkey

Correspondence

Gulay Yildirim, Sivas Cumhuriyet University, Faculty of Medicine, Department of Medicine History and Ethics, TR-58140 Sivas, Turkey.
Email: gyildirim@gmail.com

Abstract

Purpose: To examine the relationship between decision making and gender roles of students studying in healthcare fields.

Design and Methods: The sample of the study consisted of 357 students studying in healthcare fields of a university. The data were collected using the Melbourne Decision Making Questionnaire and the Gender Roles Attitudes Scale (GRAS).

Findings: Students' self-esteem mean score was 9.41 ± 1.91 and the total GRAS mean score was 107.57 ± 13.54 . There was a statistically significant difference between GRAS, buck-passing, and hypervigilance subscales mean scores according to students' departments ($p < 0.05$). Self-esteem and vigilance mean scores of students were high and they had egalitarian attitudes toward gender roles.

Practice Implications: The attitudes of health professionals are important in ensuring the participation of patients in their care and treatment decisions.

KEYWORDS

decision making, gender roles, health sciences, university students

1 | INTRODUCTION

Gender roles include roles and responsibilities assigned to “women” and “men” depending on social, cultural, and geographical differences. Feminine gender roles are often characterized by tenderness, understanding, sensuality, and dependence. Masculine gender roles are characterized by leadership, dominance, and independence. Gender involves cultural beliefs, personality and identity, behaviors, and often forms the basis for social differentiation. The lives of individuals in the process of socialization play a role in shaping their gender roles.¹ Gender norms affect the individual's gender roles and perceptions. The role is defined as the totality of behaviors expected from individuals to perform regularly and consistently according to their status in society. Gender roles, on the other hand, express expectations based on gender characteristics that are defined by society and desired by the individual.¹ While gender-related roles are determined on a biological basis, gender roles are determined by cultural experiences within the society.²

Another aspect of gender roles is stereotypes specific to gender roles. These stereotypes are the duties, responsibilities, and activities that culture imposes on women and men. According to the literature, stereotypes specific to gender roles create significant differences in the social life, career choice, education, marriage, and family life of men and women. The stereotypical judgments of society in every aspect of life can be an obstacle to gender equality.³⁻⁶ In addition, stereotyped judgments resulting from social and cultural differences may affect perceptions of gender roles and may lead to changes in individuals' decision making.⁷

Health professionals often face with decision-making processes in care and treatment practices. Therefore, it is important for them to be individuals who can be creative, think critically and analytically, cope with the problems they face, and make the right decisions to solve these problems. The decision-making process is defined as the process of selecting, applying, and evaluating the most appropriate alternatives to reach a goal and solve a problem. What is important in decision making is the process of making the right judgment among the alternatives and reaching the conclusion.⁸

Personality traits, attitudes, beliefs, values, and environmental and social factors of individuals are the factors affecting decision-making styles. The attitudes of health professionals are important in ensuring the participation of patients in their care and treatment decisions, in solving ethical dilemmas, and in ensuring the equal participation of everyone in the decisions without any discrimination.^{9,10} At the same time, the perspective of the health professionals against gender roles is important while making decisions in cases of access to health services and their equal use. The culture and stereotypes that health professionals possess and are influenced may also be effective in the implementation of critical decisions in which respect for the individual should be at the forefront while preserving the autonomy of the individual during the delivery of health services. Therefore, the attitudes of health professionals should be determined and the variables that may affect this attitude should be detected. Although there are studies on gender discrimination and related problems in the literature,^{3,11,12} there is a very limited number of studies on the decision-making attitudes of health workers.¹³ Therefore, this study is predicted to contribute to the literature. Besides, it is thought that determining the effect of gender roles on the decision-making level of healthcare professionals, who have just started their professional life, can guide their future activities performed during the education life. In connection with the gender orientation of individuals, it may not be allowed to be adequately represented in decisions made in collaboration with the team. Due to gender roles, individuals may also show different sensitivity in care practices. However, the gender role attitudes of decision makers may be determinant in the decisions to be taken regarding access to health services and distribution of health services. Although not directly related to the study, it was reported in one study that gender equality in decision making had positive economic consequences and had a positive effect on higher-quality institutions and performance.¹⁴ Specifically, it shows how gender bias can lead to many mistakes that harm gender equality and organizations in decision making, and that we need to examine all areas of our decision-making process.¹⁵ It is reported in the literature that it is important to determine how people make important decisions and the factors that affect the decisions they make.¹⁶ In this context, the research was conducted to examine the relationship between decision making and gender roles of students studying in healthcare fields.

2 | DESIGN AND METHODS

2.1 | Research population and sample

The population of this descriptive study consisted of all first-grade students who were studying in the Faculty of Medicine, Faculty of Health Sciences Department of Midwifery, and School of Health Department of Nursing of a university located in the Central Anatolia Region of Turkey. A total of 357 first-grade students who accepted to participate in the study between March 15 and 16, 2017 created the sample.

2.2 | Data collection tools

The data were collected using the Personal Information Form, the Melbourne Decision Making Questionnaire, and the Gender Roles Attitudes Scale.

2.2.1 | Personal information form

There are 12 questions in this form to determine the socio-demographic characteristics of students, such as age, gender, and department of study.

2.2.2 | The Melbourne Decision Making Questionnaire (MDMQ)

The Turkish validity and reliability study of the scale developed by Mann et al.¹⁷ was conducted by Deniz.¹⁸ The internal consistency coefficients of MDMQ I-II ranged from 0.65 to 0.80 in the validity and reliability study.¹⁸ In our study, Cronbach's alpha value ranged from 0.62 to 0.77. The scale is divided into two parts.

First part: This part, which determines self-esteem in decision making, consists of six items. Three items of which are normally scored and another three items are reverse-scored. The scale offers three answer options, graded from 0 to 2, where 2 is agree, 1 is neutral, and 0 is disagree. The lowest possible score from the scale is 0 and the highest score is 12. High scores indicate high self-esteem in decision making.

Second part: This part, which measures decision-making styles, is composed of 22 items and four subscales. This part is answered like the first part. High scores indicate that the relevant decision-making style is used.

1. Vigilance: It consists of six items. It involves a careful and thorough evaluation of alternatives and rational decision making.
2. Buck-passing: It consists of six items. It involves leaving decisions to others and avoiding responsibility.
3. Procrastination: It consists of five items. It involves continuous postponing, delaying, and dragging out decision-making behavior without a valid reason.
4. Hypervigilance: When an individual is confronted with a decision-making situation, he/she makes hasty decisions, by feeling under time pressure, and an effort to reach quick solutions.¹⁸

2.2.3 | The gender roles attitudes scale (GRAS)

The scale developed by Zeyneloglu and Terzioglu¹ consists of a total of 38 items. Responses to the scale are evaluated over the total score. The scale offers five answer options, graded using a Likert scale from 1 to 5, where 1 is totally disagree, 2 is disagree, 3 is neutral, 4 is agree, and 5 is totally agree. The highest score from the

TABLE 1 Socio-demographic characteristics of the students

Characteristics	Midwifery (n = 69) n (%)	Nursing (n = 146) n%	Medicine (n = 142) n (%)	Total (n = 357) n (%)
Mean age 19.26 ± 1.28 (min:17; max:31)				
Gender				
Female	68 (98.5)	137	95	300 (84.0)
Male	1 (1.5)	9	47	57 (16.0)
Place of residence before university education				
City	44 (63.8)	83	116	243 (68.1)
County	15 (21.7)	46	26	87 (24.3)
Village/town	10 (14.5)	17	0	27 (7.6)
Place of residence during university education				
Dormitory	55 (79.8)	141	101	297 (83.2)
Home with friends	2 (2.9)	1	9	12 (3.4)
Home with family	12 (17.3)	4	32	48 (13.4)
Family type				
Nuclear	56 (81.2)	116	126	298 (83.5)
Extended	13 (18.8)	30	16	59 (16.5)
Educational level of mother				
Literate/illiterate	13 (18.8)	37	2	55 (14.6)
Primary school/ Secondary school	45 (65.2)	98	56	199 (55.8)
High school	10 (14.5)	8	45	63 (17.6)
University	1 (1.5)	3	39	43 (12.0)
Educational level of father				
Literate	5 (7.2)	6	2	13 (3.6)
Primary school/ Secondary school	40 (58.0)	93	28	161 (45.1)
High school	14 (20.2)	33	37	84 (23.5)
University	10 (14.5)	14	75	99 (27.8)
Mother's working status				
Working	6 (8.7)	12	39	57 (16.0)
Not working	63 (91.3)	134	103	300 (84.0)
Father's working status				
Working	45 (65.2)	111	123	279 (78.2)
Not working	24 (34.8)	35	19	78 (21.8)
Choosing the profession voluntarily				
Yes	57 (82.6)	128	136	321 (89.9)
No	12 (17.4)	18	6	36 (10.1)

Characteristics	Midwifery (n = 69) n (%)	Nursing (n = 146) n%	Medicine (n = 142) n (%)	Total (n = 357) n (%)
Suitability of the profession				
Very suitable	11 (15.9)	34	52	97 (27.2)
Suitable	53 (76.9)	103	83	239 (66.9)
Not suitable	5 (7.2)	9	7	21 (5.9)
Perceiving academic achievement				
Good	20 (29.0)	68	61	149 (41.7)
Moderate	46 (66.7)	75	73	194 (54.4)
Bad	3 (4.3)	3	8	14 (3.9)

scale indicates that the student has an “egalitarian attitude” and the lowest score indicates a “traditional attitude” regarding gender roles. The highest possible score from the total of the scale is 190 and the lowest score is 38. In the validity and reliability study, Cronbach's alpha value was found to be 0.92¹ and 0.70 in our study.

2.3 | Application and ethical aspects

Before the research, approval was obtained from the Non-Interventional Clinical Research Ethics Committee of the university (decision no: 2017-03/13) and written permission was obtained from the institutions where the research would be conducted. After the written or verbal consent was obtained from the participants, the forms were given to the class representative by the researchers in the classroom and were asked to be distributed to the students. Thus, their free will was preserved by ensuring that they could notify their peers about their decisions of filling the form or not, without feeling pressure. It was ensured that the application process of the forms was carried out by the researcher who did not attend the class of the relevant group. It took about 10–15 min to complete the forms. Participants were asked to leave the forms filled on the researcher's desk by turning them upside down so that their markings were not visible. It was stated that the students themselves would complete the forms, they would not write names on the questionnaire form, the data would be used for research only, filling out the forms were based on voluntariness, and that the forms had nothing to do with pass marks and passing a grade. The study was conducted according to the Helsinki Declaration principles.

2.4 | Analysis of the data

SPSS 22 program was used to evaluate the data. Number and percentage distribution were used to evaluate sociodemographic characteristics, and arithmetic mean and standard deviation were used to

evaluate the scales. If parametric test assumptions were met, independent sample *t* test, one-way analysis of variance, and Pearson correlation analysis were used, and Tukey test was used to determine from which group the difference originated. The results were evaluated with a 95% confidence interval and a significance level of $p < 0.05$.

3 | FINDINGS

3.1 | Socio-demographic characteristics

The mean age of the participants was 19.26 ± 1.28 (min: 17; max: 31). Eighty-four percent of the students were female, 68.1% lived mostly in a city center, 83.2% stayed in dormitories, and 83.5% had nuclear families. Fifty-five point eight percent of their mothers and 45.1% of their fathers were primary school graduates, 84% of their mothers did not work, 78.2% of their fathers worked. Eighty-nine point nine percent of the participants stated that they chose the profession voluntarily, 66.9% thought that the profession was suitable for them, and 54.4% evaluated their academic achievement as moderate (Table 1).

3.2 | Decision making and gender roles related results

The self-esteem mean score of the students was 9.41 ± 1.91 (min:0; max:12). Vigilance mean score was 9.93 ± 2.02 (min:2; max:12), hypervigilance mean score was 4.21 ± 2.13 (min:0; max:10), buck-passing mean score was 3.63 ± 2.41 (min:0; max:12), and procrastination mean score was 3.45 ± 2.13 (min:0; max:9). The total GRAS mean score was found to be 107.57 ± 13.54 (min:77; max:152) (Table 2).

There was a low positive significant relationship between procrastination mean score and total GRAS mean score ($p = 0.049$;

TABLE 2 Subscales of decision-making scale and total GRAS scores

Scales	Minimum–maximum	M ± SD
Self-esteem	0–12	9.41 ± 1.91
Vigilance	2–12	9.93 ± 2.02
Buck-passing	0–12	3.63 ± 2.41
Procrastination	0–9	3.45 ± 2.13
Hypervigilance	0–10	4.21 ± 2.13
GRAS	77–152	107.57 ± 13.54

$r = 0.104$); however, there was no significant relationship between self-esteem, vigilance, buck-passing, and hypervigilance scores ($p > 0.05$). As participants' procrastination subscale scores increased, their egalitarian attitudes toward gender roles increased as well (Table 3).

Buck-passing ($p = 0.001$) and hypervigilance ($p = 0.001$) scores of medical students were found to be statistically significantly higher than nursing students. Total GRAS scores of nursing students were found to be statistically significantly higher than medical students ($p = 0.001$) (Table 4).

Procrastination ($p = 0.044$) and total GRAS ($p = 0.039$) mean scores of male students were higher than female students, and the difference between them was statistically significant (Table 5).

Self-esteem ($p = 0.001$) scores of students having an extended family and buck-passing ($p = 0.003$) and hypervigilance ($p = 0.005$) scores of students having a nuclear family were found to be statistically significantly high (Table 5).

Buck-passing ($p = 0.012$) and procrastination ($p = 0.012$) scores of students living in a city center were found to be statistically significantly higher than those living in a county (Table 6).

Hypervigilance ($p = 0.034$) scores of students whose mothers were high school graduates were significantly higher than those whose mothers were literate, and total GRAS ($p = 0.001$) scores of students whose mothers were literate were significantly higher than those whose mothers were high school and university graduates (Table 6).

Self-esteem ($p = 0.001$) and vigilance scores ($p = 0.001$) of students who stated that the profession was very suitable for them were statistically significantly higher than those who stated that the profession was suitable for them. Buck-passing ($p = 0.002$),

procrastination ($p = 0.008$), and hypervigilance ($p = 0.041$) scores of students who stated that the profession was not suitable for them were significantly higher than those who stated it was very suitable ($p < 0.05$) (Table 6).

Self-esteem ($p = 0.011$) scores of students who perceived their academic achievement as good were significantly higher than those who perceived as moderate, and buck-passing ($p = 0.017$) and hypervigilance ($p = 0.001$) scores of students who perceived their academic achievement as bad were significantly higher than those who perceived as good (Table 6).

4 | DISCUSSION

This study was conducted to examine the relationship between decision making and gender roles of students studying in healthcare fields; it was observed in the study that students exhibited more autonomous attitudes and used a vigilance style. In our study, it was also found that students had more egalitarian attitudes in terms of gender roles in general. As students' procrastination subscale scores increased, their egalitarian attitudes toward gender roles increased as well.

4.1 | Decision making

In line with the literature, it was determined that students mostly used vigilance in the search for information before making decisions and in making choices after carefully evaluating the alternatives,¹⁹ and used buck-passing and procrastination the least. The widespread use of mass media, the increase in the level of education in the family, the use of healthy means of communication, and the importance of ensuring the participation of children in education and in decision-making mechanisms may have influenced the result. In a study conducted on high school students, it was found that the participants used mostly vigilance, hypervigilance, buck-passing, and procrastination styles as decision-making styles, respectively, and this study finding is compatible with our finding.¹⁹

In the study, the students who were studying in the field of medicine had higher buck-passing and hypervigilance scores than the other department students. Medical students' high buck-passing and hypervigilance use may be affected by education of the child in the family, social skill levels, focusing on academic achievement, the

	Subscales of Decision-Making Scale				
	Self-esteem	Vigilance	Buck-passing	Procrastination	Hypervigilance
GRAS	$p = 0.376$	$p = 0.306$	$p = 0.074$	$p = 0.049$	$p = 0.393$
	$r = -0.047$	$r = -0.056$	$r = 0.095$	$r = 0.104^*$	$r = 0.045$

Note: r = Pearson correlation analysis. Bold values represent significant findings.

* $p < 0.05$.

TABLE 3 The relationship between subscales of decision-making scale and total GRAS scores

TABLE 4 Subscales of decision-making scale and total GRAS scores of students according to their departments

Scales	Departments			Test ^a
	Midwifery (n = 69) $\bar{X} \pm SD$	Nursing (n = 146) $\bar{X} \pm SD$	Tip (n = 142) $\bar{X} \pm SD$	
Self-esteem	9.37 ± 1.62	9.67 ± 1.96	9.16 ± 1.96	F = 2.595 p = 0.076
Vigilance	10.01 ± 2.07	9.87 ± 2.01	9.94 ± 2.03	F = 0.113 p = 0.893
Buck-passing	3.43 ± 2.12	3.18 ± 2.37	4.20 ± 2.47	F = 6.961 p = 0.001*
Procrastination	3.28 ± 2.05	3.21 ± 2.08	3.79 ± 2.19	F = 2.983 p = 0.052
Hypervigilance	3.98 ± 2.06	3.82 ± 2.10	4.71 ± 2.11	F = 6.829 p = 0.001*
Total GRAS	106.59 ± 11.46	111.49 ± 14.42	104.03 ± 12.53	F = 11.804 p = 0.001*

Note: Bold values represent significant findings.

^aOne-way analysis of variance (ANOVA).

*p < 0.05.

TABLE 5 Decision-making subscale and total GRAS scores according to gender and family type of students

	Gender		95% CI		Test (t/p)	Family type		95% CI		Test (t/p)
	Female $\bar{X} \pm SD$	Male $\bar{X} \pm SD$	Lower	Upper		Nuclear $\bar{X} \pm SD$	Extended $\bar{X} \pm SD$	Lower	Upper	
Self-esteem	9.42 ± 1.89	9.36 ± 1.99	-0.48	0.60	0.211/0.833	9.25 ± 1.96	10.22 ± 1.40	-1.49	-0.43	-3.590 0.001*
Vigilance	9.90 ± 2.04	10.07 ± 1.92	-0.74	0.41	-0.569/0.570	9.84 ± 2.05	10.37 ± 1.81	-1.09	0.03	-1.842 0.066
Buck-passing	3.57 ± 2.39	3.96 ± 2.50	-1.07	0.29	-1.115/0.266	3.80 ± 2.44	2.79 ± 2.05	0.33	1.67	2.968 0.003*
Procrastination	3.36 ± 2.09	3.98 ± 2.28	-1.22	-0.01	-2.024/ 0.044*	3.51 ± 2.14	3.18 ± 2.10	-0.26	0.93	1.074 0.284
Hypervigilance	4.14 ± 2.12	4.56 ± 2.16	-1.02	0.18	-1.356/0.176	4.35 ± 2.13	3.49 ± 2.01	0.27	1.46	2.856 0.005*
Total GRAS	106.93 ± 13.85	110.96 ± 11.35	-7.86	-0.20	-2.070/ 0.039*	107.15 ± 13.70	109.69 ± 12.65	-6.21	1.36	-1.317 0.189

Note: Bold values represent significant findings.

Abbreviations: CI, confidence interval; GRAS, Gender Roles Attitudes Scale; t, independent sample t test.

*p < 0.05.

inclusion of children in decision-making mechanisms in the family, and sharing of household responsibilities. In addition, physician candidates' experiencing heavy professional responsibility and being under intense stress may also be the reason. In a study conducted by Deniz²⁰ among university students, it was found that individuals who used the buck-passing style to cope with stress did not trust in themselves, and those who did not trust in themselves tended to

procrastinate their decisions, transfer their responsibilities to others, and turned to hypervigilance decision-making behaviors. As medical students' preference of hypervigilance and buck-passing styles can cause problems in emergency decision-making cases in their profession and cause malpractice events, this situation should be taken into consideration. Buck-passing and hypervigilance styles may be inadequate in understanding the feelings of patients and team

TABLE 6 Decision-making subscale and total GRAS scores according to some characteristics of students

	Self-esteem $\bar{X} \pm SD$	Vigilance $\bar{X} \pm SD$	Buck-passing $\bar{X} \pm SD$	Procrastination $\bar{X} \pm SD$	Hypervigilance $\bar{X} \pm SD$	Total GRAS $\bar{X} \pm SD$
Place of residence						
City	9.31 ± 2.02	9.97 ± 1.92	3.89 ± 2.46	3.66 ± 2.23	4.35 ± 2.20	106.66 ± 13.54
County	9.74 ± 1.60	10.04 ± 2.11	3.12 ± 2.19	3.03 ± 1.83	3.97 ± 2.04	109.51 ± 13.90
Village/town	9.29 ± 1.70	9.14 ± 2.52	2.96 ± 2.27	3.00 ± 1.94	3.62 ± 1.62	109.56 ± 11.91
Test (<i>F/p</i>)	1.720/0.181	2.223/0.110	4.505/ 0.012*	3.488/ 0.032*	2.109/0.123	1.730/0.179
Mother's educational status						
Literate	10.01 ± 1.40	10.26 ± 1.79	3.17 ± 2.27	3.32 ± 1.96	3.78 ± 1.93	111.75 ± 13.76
Primary/secondary school	9.32 ± 1.98	9.81 ± 2.09	3.56 ± 2.41	3.34 ± 2.12	4.06 ± 2.12	109.25 ± 13.21
High school	9.23 ± 2.07	10.01 ± 2.11	4.03 ± 2.37	3.61 ± 2.27	4.74 ± 2.14	102.22 ± 10.97
University and ↑	9.37 ± 1.74	9.93 ± 1.84	3.97 ± 2.54	3.93 ± 2.19	4.62 ± 2.25	102.60 ± 14.89
Test (<i>F/p</i>)	2.079/0.103	0.737/0.530	1.559/0.199	1.081/0.357	2.917/ 0.034*	8.355/ 0.001*
Professional suitability						
Very suitable	9.91 ± 1.62	10.60 ± 1.74	3.05 ± 2.35	3.09 ± 2.17	3.88 ± 2.19	105.49 ± 11.99
Suitable	9.32 ± 1.89	9.62 ± 2.09	3.76 ± 2.34	3.50 ± 2.10	4.25 ± 2.04	108.11 ± 13.71
Not suitable	8.14 ± 2.55	10.23 ± 1.72	4.95 ± 2.78	4.66 ± 1.93	5.14 ± 2.59	111.05 ± 17.41
Test (<i>F/p</i>)	8.612/ 0.001*	8.676/ 0.001*	6.495/ 0.002*	4.930/ 0.008*	3.216/ 0.041*	2.033/0.132
Academic achievement						
Good	9.74 ± 1.88	10.02 ± 1.96	3.63 ± 2.44	3.22 ± 2.12	4.09 ± 2.17	107.19 ± 12.34
Moderate	9.22 ± 1.90	9.90 ± 2.08	3.54 ± 2.31	3.54 ± 2.07	4.13 ± 2.02	107.94 ± 14.20
Bad	8.57 ± 1.69	9.21 ± 1.88	5.00 ± 3.06	4.85 ± 2.65	6.42 ± 2.13	106.57 ± 17.07
Test (<i>F/p</i>)	4.615/ 0.011*	1.054/0.350	2.408/0.091	4.129/ 0.017*	8.191/ 0.001*	0.166/0.847

Note: *F*, one-way analysis of variance (ANOVA). Bold values represent significant findings.

**p* < 0.05.

members, in decision making and implementation, and may also reduce the quality of patient treatment/care. In line with this comment, in a study conducted on physicians, there found to be a negative relationship between the subscale of evaluating the feelings of others and the buck-passing subscale.¹³

When decision-making styles were compared with some socio-demographic information, it was seen in the study that male students preferred the procrastination style more. This can be explained by the fact that women have more sensitive, thoughtful, and responsible characteristics than men. In a study, it was determined that male students made more intuitive decisions.²¹ Although rational decision-making levels of men were found to be lower than women²²; in another study conducted with university students, it was reported that men used less buck-passing and hypervigilance styles.²³ In

another study, it was determined that female teachers were more likely to make emotional decisions.²⁴ Contrary to these results, Tekkurşun et al⁸ reported no significant differences between decision-making styles and gender.

In our study, the students living in the city center used buck-passing and procrastination decision-making styles more than the ones living in the county. This may be explained by the continuing effects of traditional education in the family. Students' attitudes in accordance with the expectations of the culture they live in, not including their children in the decision-making mechanisms of the family living in the city, and the development level of the city may have affected the decision-making style. In contrast to our study, it was found in a study that students from the town made more timid, avoidant decisions than students from the city.²¹

In our study, students living in extended families used the self-esteem style and those who lived in nuclear families used buck-passing and hypervigilance styles more. This may be due to the inclusion of children in the decision-making mechanisms of the extended family or children witnessing the decision-making processes and thus forming their own thoughts accordingly. One study suggests that students staying in dormitories make more rational decisions than those staying at home with their friends or families.²¹

Students whose mother is a high school graduate use the hypervigilance style more. The family dynamics, such as the child's participation in the decision-making mechanisms of the family, family responsibilities, and the protective attitude of the family may have affected this result.

Students who stated that the profession was very suitable for themselves had higher self-esteem and used a vigilance style more. Students who perceived their academic achievement as good had also higher self-esteem. This shows that the choice of suitable profession and academic achievement of an individual affect self-esteem in decision making and that doing the job with pleasure is effective in being successful and in vigilant decision making.

Students who stated that the profession was not suitable for them used more buck-passing, procrastination, and hypervigilance styles than those who stated it as very suitable. This result may have been affected by occupational characteristics of the healthcare field, such as time pressure, immediate resolution, and heavy responsibility.

4.2 | Social gender

In our study, it was found that students had more egalitarian attitudes in terms of gender roles in general. Finding that students have more egalitarian roles in a study supports our research findings.¹² The reason why students adopt more egalitarian attitudes in our study can be explained by the fact that they are young, their education level is high, and their families are from younger generations. Studies suggest that those with a higher education level and with family members from younger generations have more egalitarian attitudes and roles^{25,26}. Because it is stated that families with members from younger generations exhibit more egalitarian attitudes in terms of gender roles. Intellectual and social developments, such as the lifestyle brought by the modern world, human rights, feminism, democracy, freedom, and the advancement of science and technology can create a generation gap.²⁷

The reason why medical students exhibit less egalitarian attitudes compared to students in midwifery and nursing departments may be that there is no course related to gender roles, discrimination, or gender inequality in the medical faculty curriculum.¹¹ Witnessing the life experiences as a woman in the society, the regulations on women's rights and the education focusing on egalitarian gender roles can be effective in the adoption of egalitarian gender roles in midwifery and nursing students.

When we compared gender roles with some variables, it was found that males had more egalitarian attitudes in general gender roles. While this finding is compatible with the results of other studies,^{25,28} it is not similar to the studies stating that male students have a traditional view of gender roles.^{12,25}

Moreover, those whose mothers are only literate have more egalitarian attitudes than those who are high school and university graduates. Although there is an impact of traditional attitudes related to cultural experiences, especially in mothers with low educational level, an increase in their awareness of gender equality and role sharing may have led to higher egalitarian scores. Contrary to our study, it was found in a study that women and those with a higher education level had more egalitarian attitudes in terms of gender roles.^{25,29} In another study, it was found that children had a low level of gender roles because their parents had a low educational level. In the same study, it was found that students may have adopted these attitudes by taking role models from their parents, which was not consistent with our result.³ In other studies, it is suggested that those with higher educational level have more egalitarian attitudes and roles.¹³

This study contains some limitations. The study includes only the first-grade students studying in the field of health (medicine, nursing, and midwifery) in the region where the research was conducted. The findings cannot be generalized to all students. Since the students were in first grades, their professional knowledge, skills, and attitudes were not mature yet. This, in turn, may have affected the answers. In addition, data collection from a single setting, temporal associations among the studied variables, and convenience sampling also constituted a limitation.

5 | CONCLUSION

As a result, all students have a high level of self-esteem, they use the vigilance style most, and buck-passing and procrastination styles the least. In addition, students studying in the field of medicine prefer hypervigilance and buck-passing styles more compared to other department students. Although students tend to more egalitarian gender roles in general, medical students exhibit less egalitarian attitudes in terms of gender roles. Nursing students exhibited more egalitarian attitudes in gender roles. As participants' procrastination scores increased, their attitudes toward gender roles increased as well. Gender, place of residence, family type, educational level of the mother, suitability to the profession, and academic achievement affect students' decision-making levels; gender and education of mother affect attitudes toward gender roles. Unlike other studies, that men with a family of low education showed a more egalitarian attitude in gender roles was a remarkable result of this study. The advancement of science and technology and the increase in communication tools as a result of intellectual and social developments in lifestyles, human rights, feminism, democracy, freedom brought by the modern world, have positively affected the participants' awareness and attitudes toward egalitarian gender roles. In

addition, that the participants had higher educational level than their families affected this situation.

5.1 | Implication for nursing practice

The attitudes of health professionals are important in ensuring the participation of patients in their care and treatment decisions, in solving ethical dilemmas, and in ensuring the equal participation of everyone in the decisions. In line with these results, it should be ensured that students develop awareness by becoming aware of gender roles and right decision making in the education process; they gain an egalitarian attitude and right decision-making perspective. In this context, carrying out programs and guidance studies to develop effective decision-making styles of individuals is recommended. In addition, it is recommended to raise awareness on the planning of gender equality-oriented trainings for the society as well as young people, and on the formulation and support of policies. While planning future research on the subject, it is recommended that the data of the students be collected and evaluated with a qualitative method in the first and last years. It can also be explored how decision making in gender roles affects care management, malpractice, leadership, and professionalism.

The protocol for the research project has been approved by the ethics committee of the Faculty of Medicine, Cumhuriyet University (decision no. 2017-03/13).

AUTHOR CONTRIBUTIONS

Conceptualization, methodology, investigation, formal analysis, writing—original draft: Gulay Yildirim. *Conceptualization, methodology, writing—original draft:* Sukran Ertekin Pinar.

CONFLICT OF INTERESTS

The authors declare that there are no conflict of interests.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

ORCID

Gulay Yildirim  <https://orcid.org/0000-0002-9589-7134>

Sukran Ertekin Pinar  <https://orcid.org/0000-0002-5431-8159>

REFERENCES

- Zeyneloglu S, Fusun T. Development of gender roles attitude scale and psychometric properties. *Hacettepe Univ J Educ Faculty*. 2011; 40:409-420.
- McBride DE, Parry JA. *Women's Rights in the USA, Policy Debates and Gender Roles*. London, UK: Routledge; 2016:s11-s12.
- Aydin M, Ozen E, Yilmaz Goren BS, Sungur MA. Attitudes of nursing students regarding to gender roles. *AIBU J Social Sci*. 2016;16(1): 223-242.
- Azad AD, Charles AG, Ding Q, Trickey AW, Wren SM. The gender gap and healthcare: associations between gender roles and factors affecting healthcare access in central Malawi, June–August 2017. *Arch Public Health*. 2020;78(119):2-11.
- Bolat N, Odacı H. High school final year students' career decision-making self-efficacy, attachment styles and gender role orientations. *Curr Psychol*. 2017;36:252-259.
- Cornish H, Walls H, Ndirangu R, et al. Women's economic empowerment and health related decision-making in rural Sierra Leone. *Cult Health Sex*. 2021;23(1):19-36.
- Ongen B, Aytac S. The relationship between attitudes and life values of university students regarding gender roles. *Social Conf*. 2013; 48(2):1-18. <http://dergipark.gov.tr/download/article-file/101330>
- Tekkursun DG, Namli S, Hazar Z, Turkeli A, Cicioglu HI. Decision making styles and mental well-being levels of individual and team athletes. *CBU J Phys Educ Sports Sci*. 2018;13(1):176-191.
- Dewberry C, Juanchich M, Narendran S. Decision-making competence in everyday life: the roles of general cognitive styles, decision-making styles and personality. *Pers Individ Dif*. 2013;55(7):783-788.
- Sanz de Acedo Lizárraga ML, Sanz de Acedo Baquedano MT, Cardelle-Elawar M. Factors that affect decision making: gender and age differences. *Int J Psychol Psychol Therapy*. 2007;7(3):381-391.
- Altinoz AE, Gunal N, Altinoz ST, Kosger F, Essizoglu A. The gender roles attitudes of medicals students: a cross-sectional study. *Clin Psychiatr*. 2018;21:271-277.
- Yilmaz EM, Oz F. Assessing the relation between attitudes towards gender roles and domestic violence of nursing and paramedic students. *Clin Exp Health Sci*. 2018;8:160-165. <https://doi.org/10.5152/clinexphealthsci.2017.459>
- Sarikaya MB, Atilla G. The effect of emotional intelligence on decision making styles in physicians. *Suleyman Demirel University J Faculty Econ Admin Sci*. 2018;23(4):1351-1369.
- Profeta P. Gender equality in decision-making positions: The efficiency gains. *Intereconomics*. 2017;52:34-37.
- Chang EH, Milkman KL. Improving decisions that affect gender equality in the workplace. *Organ Dyn*. 2020;49:1-7.
- Delaney R, Strough J, Parker AM, Bruine de Bruin W Variations in decision-making profiles by age and gender: a cluster-analytic approach. *Pers Individ Dif*. 2015;1(85):19-24.
- Mann L, Radford M, Burnett P, et al. Cross-cultural differences in self-reported decision-making style and confidence. *Int J Psychol*. 1998;33(5):325-335.
- Deniz ME. A study on investigation of the relationship between university students' self-esteem, decision-making styles and problem solving methods in decision making. *J Educ Res*. 2004;4(15): 25-35.
- Oztabak MÜ, Erdogan I. Investigation of the relationship between high school students' thinking styles and decision making styles. *HAYEF: J Educ*. 2017;14(2):33-57. <https://doi.org/10.26650/hayef.2017.14.2.0004>
- Deniz ME. The relationships among coping with stress, life satisfaction, decision-making styles and decision self-esteem: an investigation with Turkish University students. *Social Behav Person*. 2006;34(9):1161-1170.
- Hablemitoglu S, Yildirim F. The relationship between perception of risk and decision making styles of Turkish University students: a descriptive study of individual differences. *World Appl Sci J*. 2008; 4(2):214-224.
- Dilmac B, Bozgeyikli H. Investigation of teacher candidates' subjective well-being and decision-making styles. *J Erzincan Educ Faculty*. 2009;11(1):171-187.
- Tatlilioglu K. Examining the relationship between university students' self-esteem levels and decision making styles according to some variables. *Acad Social Res J*. 2014;2(1):150-170.
- Mostert J, Gulseven O. The role of gender and education on decision-making. *Stud Bus Econ*. 2019;14(3):117-130.

25. Altuntas O, Altınova HH. Determining the relationship between gender perception and socio-economic variables. *Int Period Lang, Lit History Turkish Turkic*. 2015;10(6):83-100.
26. Cakir H, Aksoy E. The changing intrafamilial gender roles of the three generations of women living in rural Yozgat. *Turkish Stud*. 2016;11(2):259-280.
27. Kizilaslan I, Diktas I. The role of university education in changing the gender role perceptions of Turkish ELT student teachers. *Int Online J Educ Sci*. 2011;3:510-525.
28. Haj-Yahia N, Lavee Y. Division of labor and decision-making in Arab families in Israel: processes of change and preservation. *Marriage & Family Rev*. 2017;54(1):15-33.
29. Ozmete E, Zubaroglu M, Yanardag. Gender roles from the perspective of men: the value of being men and women. *Turkey Social Stud J*. 2016;20(1):91-106.

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