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Research Article

The Relationship Between Nursing Students' Attitudes Towards Surrogacy and Their Religious Orientation and Fatalism Tendencies

Semra YILMAZ[1*]

[1]*Adıyaman University, Faculty of Health Sciences, Department of Nursing, Adıyaman, Turkey.*

Abstract

Surrogacy is a complex assisted reproductive method that may be influenced by religious beliefs and fatalistic tendencies. Due to their critical roles in patient care and counseling, nurses' personal belief systems such as religious orientation and fatalism can significantly affect their attitudes toward surrogacy. This study aimed to determine the effect of religious orientation and fatalism tendency on nursing students' attitudes toward surrogacy. This cross-sectional descriptive study was conducted with 342 nursing students enrolled at a university. Data were collected using the Religious Orientation Scale (ROS), Fatalism Tendency Scale (FTS), and Surrogacy Attitude Scale (SAS). The mean age of participants was 20.25±1.5 years; 68.4% were female and 31.6% male. The mean scores for ROS, FTS, and SAS were 38.2±7.67, 28.15±6.70, and 67.15±14.8, respectively. Female students scored significantly higher than males on ROS and FTS ($p<0.05$). Statistically significant differences were found between SAS scores and variables such as gender, place of residence, knowledge about surrogacy, and willingness to have children through surrogacy ($p<0.05$). Correlation analysis revealed a positive correlation between SAS and FTS ($r=0.537$) and a strong negative correlation between SAS and ROS ($r=-0.647$) ($p<0.05$). This indicates that higher fatalism tendency is associated with more positive attitudes toward surrogacy, while higher religious orientation correlates with more negative attitudes. The findings indicate that religious beliefs and fatalism significantly and decisively influence nursing students' attitudes toward surrogacy. Therefore, raising awareness of surrogacy is crucial for nursing students to adopt more conscious, impartial, and professional approaches in their professional development.

Keywords: *Nursing, student, religious orientation, fatalism tendency, attitude toward surrogacy*

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Corresponding Author: Semra YILMAZ smr_bydk02@hotmail.com

1. Introduction

Surrogacy, a process in which a woman agrees to carry and give birth to a child on behalf of another individual or couple, using assisted reproductive technologies, is becoming increasingly popular worldwide (Martinez-Lopez & Munuera-Gomez, 2024). There are two main types of surrogacy: traditional surrogacy and gestational surrogacy. Gestational carriers can be a relative, a friend, or someone selected by a surrogacy agency or IVF clinic (Ha et al., 2012; Yanagihara, 2020; Yildiz et al., 2023). While some countries explicitly prohibit all forms of surrogacy, others permit all forms of surrogacy, while others impose restrictions on marital status, sexual orientation, nationality, country of residence, medical reason for entering surrogacy treatment, and the commercial nature of the process (Ferolino et al., 2020; Brandao & Garrido, 2022). Certain social and cultural factors make society more open to surrogacy. It is particularly influenced by country of origin, religion, activism, and social context. One of the most important determinants of attitudes towards surrogacy is religion (Radmehr & Ghodrati, 2025). Religion is one of the most important points because different religions have different perspectives on motherhood, marriage, life, and the status of the embryo (Riddle, 2021; Ghane-Mokhallesouni et al., 2022). In their study, Yildiz and colleagues stated that the surrogacy process is a complex issue and people's attitudes towards the practice are greatly influenced by culture, religion, and social belief systems regarding what is appropriate for reproduction (Yildiz et al., 2023). Fatalism is defined in various ways, ranging from passive denial of personal control to believing that death is inevitable when a serious illness is present. They also suggest that fatalism can be conceptualized as a set of health beliefs encompassing dimensions such as predetermination, pessimism, and attributing one's health (life events) to chance. There has been increasing interest in the role of fatalism in health behavior, both as an independent and dependent variable (Shen et al., 2009). Research on health-related fatalism generally focuses on its role in attempts to prevent relatively rare outcomes, but it is also stated that it affects birth choice outcomes. Therefore, fatalism may generally affect the ability to conceive and how individuals think about it. Determining the attitudes of nursing students towards surrogacy, one of the popular and debated topics today, may be important in raising awareness on this issue (Jang, 2020). The study aimed to examine the effects of religious orientation and fatalistic tendencies on nursing students' attitudes towards surrogacy.

2. Methods

2.1. Type of Research

The research is correlational and descriptive.

2.2. Research Population and Participants

The research population consisted of nursing students studying at Adiyaman University. The research was conducted at the Adiyaman University Nursing Department between January 30 and May 28, 2025. No sampling was conducted because the goal was to include all students in the study. The study was completed with the participation of 342 nursing students.

2.3. Data Collection

The data collection process was carried out online via Google Forms as part of digital intervention methods. The research data were collected using the Participant Introduction Form, the Religious Orientation Scale, the Fatalism Tendency Scale, and the Attitudes Towards Surrogacy Scale.

Participant Introduction Form: This form includes questions regarding age, place of residence, gender, class, knowledge of surrogacy, consideration of oocyte or sperm donation, and desire to have children through surrogacy in the future.

Religious Orientation Scale (ROS): The Religious Orientation Scale was developed by Onay to measure individuals' religious orientations. The scale contains 18 items, twelve of which are direct and six of which are reversed. The scale consists of three subscales: Thought, Behavior, and Emotion. The Religious Orientation Scale is a four-point Likert-type scale. The lowest possible score is 18, and the highest is 72. A higher score indicates a higher religious orientation, while a lower score indicates a lower religious orientation. The scale's Cronbach's Alpha was determined to be 0.86 (Onay, 2002). The Cronbach's Alpha reliability coefficient for the scale is 0.95. In the study, the Cronbach's alpha for the scale was determined to be 0.77.

Fatalist Tendency Scale (FTS): The scale was developed by Kaya and Bozkur in 2015 to measure fatalistic tendencies (Kaya & Bozkir, 2015). The sub-dimensions of the scale are Predetermination, Personal Control, Superstition, and Luck. The total score of the scale is calculated by summing the scores from all sub-dimensions, and total scores range from 24 to 120. As the score increases, the tendency to fatalism increases. In the scale development study conducted by Kaya and Bozkur, the Cronbach's alpha coefficient for this scale was determined to be 0.86 (Kaya & Bozkir, 2015). In the study, the Cronbach's alpha for the scale was determined to be 0.86.

Surrogacy Attitude Scale (SAS): The scale was developed by Oz and Karasin in 2024 (Oz and Karasin, 2024). The scale consists of 24 statements. It is a 5-point Likert-type scale (1: Strongly Disagree, 2: Disagree, 3: Neither Agree nor Disagree, 4: Agree, 5: Strongly Agree). The scale has four sub-dimensions: positive impact factor (1-9), negative impact factor (10-17), legal impact factor (18-21), and economic impact factor (22-24). There are no reverse-coded items. Scores range from 24 to 120. A higher score for each sub-dimension indicates a more dominant tendency toward that attitude (Oz and Karasin, 2024). The Cronbach's Alpha for the scale was determined to be 0.90.

2.4. Statistical Analysis

Statistical analyses in the study were conducted using SPSS 25.0 software. Data were analyzed using descriptive statistics such as percentage, mean, and standard deviation, independent samples t-test, ANOVA, and Pearson correlation analysis. Cronbach's alpha coefficient was calculated for scale reliability. Significance was set at $p<0.05$ with a 95% confidence interval.

2.5. Ethical Considerations

Ethical approval was obtained from the Adiyaman University social and human ethics committee (Date: 09/09/2025; Number: 206). All procedures were carried out in accordance with the ethical standards of the institution and the Declaration of Helsinki. Before participating in the study, an informed consent form was completed, and written informed consent was obtained from all participants.

3. Results

The mean age of the students in the study was 20.25 ± 1.5 years, 68.4% were female, and 31.6% were male. When looking at the location variable, it was seen that the majority of students, 71.1%, lived in the city center. Regarding their knowledge of surrogacy, 52.6% of the students stated that they were aware of it, while 47.4% stated that they were not. 94.7% of the students stated that they did not want to donate eggs. The majority of the students were found to be unwilling to have children through surrogacy (Table 1).

Table 1. *Descriptive characteristics of students (N=342)*

		n	%
Age	18-20 years	226	66.1
	21 and over	116	33.9
Gender	Female	234	68.4
	Male	108	31.6
Place of residence	Village	45	13.2
	District	54	15.7
	Central	243	71.1
Knowledge of surrogacy	Yes	180	52.6
	No	162	47.4
Considering egg donation	Yes	18	5.3
	No	324	94.7
Wanting a child through surrogacy	Yes	9	2.6
	No	333	97.4

In the study, the students' mean Fatalistic Tendency Scale (FTS) score was 79.18±12.8, and the mean Religious Orientation Scale (ROS) score was 46.12±6.4. There was a statistically significant difference between the age groups in terms of FTS and ROS ($p<0.05$). It can be said that individuals exhibit more religious belief and a tendency towards fatalism as age increases. Female students scored significantly higher than males on both FTS and ROS ($p<0.05$). This result suggests that female students are more sensitive than males. With knowledge about surrogacy, the mean FTS and ROS scores were significantly higher, and the difference was found to be significant ($p<0.05$). This finding indicates that students who were not knowledgeable about surrogacy exhibited more fatalistic and religious tendencies. There was a significant difference between considering egg donation and the mean ROS score, and students who were not considering egg donation had a higher religious orientation. It was determined that the average ROS score was higher in students who did not want to have a child through surrogacy (Table 2).

Table 2. *Relationship between the descriptive characteristics of the students and the Fatalism Tendency Scale (FTS) and the Religious Orientation Scale (ROS) (N=342)*

	FTS X±SD	Test & p	ROS X±SD	Test & p
Age				
18-20 years	78.88±11.5	t=3.530; p=0.009	45.78±5.5	t=2.237; p=0.008
21 and over	79.75±15.2		46.41±7.8	
Gender				
Female	80.03±12.4	t=2.809; p=0.041	46.61±6.6	t=2.626; p=0.011
Male	77.33±13.6		44.66±5.7	

Place of residence				
Village	75.81±7.1		45.16±3.3	
District	78.33±9.8	F=2.167; p=0.116	46.14±5.0	F=0.625; p=0.536
Central	80.12±14.1		46.14±7.0	
Knowledge of surrogacy				
Yes	78.15±14.0	t=-2.566; p=0.011	45.05±3.8	t=-2.910; p=0.004
No	80.33±11.4		47.05±8.3	
Considering egg donation				
Yes	80.12±28.8	t=-0.275; p=0.783	44.16±6.1	t=-2.357; p=0.017
No	79.13±11.4		46.11±6.4	
Wanting a child through surrogacy				
Yes	75.12±2.1	t=1.340; p=0.123	40.18±5.2	t=2.417; p=0.007
No	79.45±4.2		49.19±6.5	

** Independent samples t-test ** One-way analysis of variance (ANOVA)*

In the study, no significant differences were observed between the Surrogacy Attitude Scale (SAS) and its subscale mean scores and the students' age variable (Table 3, $p>0.05$). A statistically significant difference was found between the SAS and the variables of gender, place of residence, knowledge about surrogacy, and desire to have a child through surrogacy ($p<0.05$). In terms of gender, male students were found to have more negative attitudes toward surrogacy, while female students were found to have more positive and less oppositional attitudes. Students living in the city center were found to have a more positive attitude toward surrogacy. Students considering egg donation had a more positive approach to surrogacy. Students who wanted to have a child through surrogacy had a significantly more positive attitude than those who did not.

Table 3. *Relationship between the descriptive characteristics of the students and the Surrogacy Attitude Scale (SAS) subscales (N=342)*

	Positive Impact	Negative Impact	Legal Impact	Economic Impact	Test & p
Age					
18-20 years	23.55±6.4	24.83±8.3	11.45±3.2	6.8±2.9	t=-1.766; p=0.444
21 and over	24.31±7.5	24.78±7.9	11.51±3.4	7.3±3.2	
Gender					
Female	24.46±5.8	23.53±8.4	10.76±3.2	6.6±2.5	t=-5.199; p<.001
Male	23.58±8.5	27.58±6.6	13.00±2.9	7.9±3.8	
Place of residence					
Village	23.16±5.1	19.16±7.5	9.66±3.5	5.4±2.2	
District	23.92±7.5	25.70±8.2	11.70±3.2	7.5±2.7	F=8.914; p<.001
Central	24.26±3.7	26.80±5.0	12.40±1.9	7.2±3.2	
Knowledge of surrogacy					
Yes	25.85±7.2	22.35±7.1	11.40±3.8	7.4±3.2	t=2.434; p<.05
No	21.55±5.5	25.33±8.1	11.55±2.5	6.6±2.8	
Considering egg donation					
Yes	31.12±1.0	24.50±6.6	11.10±6.1	6.1±2.0	t=2.868; p<.05
No	23.41±6.7	29.55±8.1	11.55±3.0	7.2±3.0	

Wanting a child through surrogacy					
Yes	23.13±5.4	24.48±6.3	11.12±2.4	6.9±2.9	t=2.562; p<.05
No	18.97±6.8	29.70±8.2	14.40±3.3	11.36±3.0	

** Independent samples t-test ** One-way analysis of variance (ANOVA) Values shown as X±SD.*

When the relationship between the SAS and the FTS was examined in the study, a positive and significant relationship was found between these two variables (Table 4, p<0.05). This finding suggests that as fatalism increases, positive attitudes toward surrogacy also increase. On the other hand, the relationship between the SAS and the ROS is strongly negative and significant (p<0.05). It indicates that students with higher religious orientation exhibit more negative attitudes toward surrogacy.

Table 4. *Relationship between the Surrogacy Attitude Scale (SAS) and the Fatalism Tendency Scale (FTS) and the Religious Orientation Scale (ROS) (N=342)*

	SAS X±SD
	67.15±14.8
Fatalism Tendency Scale (FTS)	r=0.537; p<.001
Religious Orientation Scale (ROS)	r=-0.647; p<.001

** Pearson correlation coefficient (r)*

4. Discussion

This study examined the relationship between university students' attitudes toward surrogacy and their fatalistic tendencies and religious orientations. The study findings indicate that individuals' attitudes toward surrogacy are significantly related to their socio-demographic characteristics and belief systems. The participants' mean Surrogacy Attitude Scale (SAS) score was 67.15±14.8, indicating a generally moderately positive attitude toward surrogacy. However, these attitudes varied according to age, gender, place of residence, level of knowledge, and personal preferences. Findings regarding the gender variable revealed that female students developed more positive and less negative attitudes toward surrogacy compared to male students (p<0.05). Eraslan's study found that female students' mean attitude scores toward surrogacy were higher than male students, and the difference was significant (Eraslan, 2023). Our study results are similar to Eraslan's results. The study found that individuals living in city centers had a more positive and legally and economically acceptable approach to surrogacy than those living in villages or towns (p<0.05). Similar to our findings, Kilic et al., in a study conducted with students, found that those living in towns and cities had a higher percentage of those accepting surrogacy (Kilic et al., 2009). This could be explained by urban life being more open to diverse thought patterns and medical and scientific developments. The study found that individuals who were knowledgeable about surrogacy developed significantly more positive attitudes toward this method (p<0.05). Similarly, students considering egg donation also had a more open-minded and positive approach to surrogacy. Individuals who wanted to have children through surrogacy scored significantly higher on all attitude subscales (p<0.05). This suggests that individuals develop more flexible attitudes toward alternative reproductive methods, depending on their personal needs or plans. In their study, Bruce-Hickman and colleagues highlighted students' lack of knowledge about surrogacy and maternity

law (Bruce-Hickman et al., 2009). Kaya Senol and colleagues also noted that as education levels increase, the rate of acceptance of having children through sperm/egg donation increases (Kaya Senol et al., 2019). Provoost and colleagues also stated that the biggest obstacle to egg donation is a lack of knowledge (Provoost et al., 2018). Our finding is similar to the results of Kaya Senol et al. and Provoost et al.

One of the most striking findings of the study is the positive and significant correlation between the Fatalistic Tendency Scale (FTS) and the SAS ($r=0.537$; $p<0.05$). This finding indicates that individuals with a high fatalistic tendency develop more positive attitudes toward surrogacy. This result, contrary to expectations, can be interpreted as meaning that fatalism may facilitate acceptance of new methods rather than passively affecting individuals. This suggests that the concept of fatalism may have different meanings depending on the cultural context.

The study found a negative and strong correlation between the Religious Orientation Scale (ROS) and the SAS ($r=-0.647$; $p<0.05$). This result clearly demonstrates that individuals with a high religious orientation develop more negative attitudes toward surrogacy. This finding is consistent with the views frequently emphasized in the literature that religious beliefs advocate for traditional family structures and natural reproduction (Yildiz et al., 2023; Herrera et al., 2015; Savas and Sut, 2024). Religious tendencies may view surrogacy as morally, ethically, or inherently problematic, which may cause individuals to remain more distant from this method (Yildiz et al., 2023). It was determined that students who did not want to have children through surrogacy had higher ROS mean scores ($p<0.05$). Similarly, in their study, Savas and Sut determined that almost half of the students who did not find egg collection or donation appropriate due to their religious beliefs were students with a high religious belief (Savas and Sut, 2024).

5. Implications for Nursing Practice

The findings of this study underscore the necessity of integrating bioethical reflection and personal belief systems into nursing education. The strong correlation between religious orientation, fatalism, and attitudes toward surrogacy suggests that nursing students may carry inherent biases into their professional roles. Therefore, it is essential to implement values clarification exercises within nursing curricula to help students distinguish between their personal moral frameworks and professional obligations, ensuring the delivery of non-judgmental and equitable care. Furthermore, as a deficit in specialized knowledge is associated with more resistant attitudes, integrating comprehensive modules on Assisted Reproductive Technologies and their legal-ethical dimensions is crucial. By replacing myths with evidence-based knowledge, nursing programs can better prepare students for their roles as frontline providers. Ultimately, recognizing how fatalistic and religious backgrounds shape perception allows educators to empower students to navigate the complex intersection of faith and modern medicine, fostering a more objective, culturally competent, and professional nursing workforce.

6. Conclusion

This study reveals that nursing students' attitudes toward surrogacy are significantly influenced by religious orientation and fatalistic tendencies. High religious orientation is associated with negative attitudes, while high fatalistic tendencies predict more positive views, suggesting that fatalism may

facilitate the acceptance of surrogacy as a predetermined solution to infertility. To provide professional and unbiased care, it is important to prioritize patient autonomy beyond personal belief systems in nursing education by integrating comprehensive modules on reproductive technologies into nursing curricula, thus contributing to professional development.

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