# **ORIGINAL ARTICLE**

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# **Knowledge levels of fetal rights in Turkish pediatric nurses**

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# **ABSTRACT**

#### BACKGROUND

Fetal rights are violated due to acts such as negligence, ignorance, false beliefs and substance addiction. Pediatric nurses, as defenders of the fetus, should inform pregnant women and the family about the rights of the fetus and assist the family in the decision-making process. This study aims to determine the knowledge levels of pediatric nurses on fetal rights.

#### **METHODS**

This cross-sectional study involved 121 nurses working in the pediatric clinic of a training and research hospital. Data about characteristics of pediatric nurses and knowledge levels about fetal rights were collected. Statistical analyses were made with SPSS package program. Mann Whitney U test and Kruskal Wallis test was used to analyse the data.

#### **RESULTS**

In this study, it was found that 76.9% of the pediatric nurses participating in the study did not have prior knowledge about fetal rights. There was a statistically significant difference between the participants' mean scores of knowledge levels about fetal rights and their age, educational status, status of prior knowledge about fetal rights and where this knowledge was gained (p<0.05).

## CONCLUSION

As a result, it was found that most of the pediatric nurses did not have prior knowledge about fetal rights, and that their knowledge about fetal rights was lacking. Considering that pediatric nurses, as the defenders of the fetus, have a duty to inform the family about fetal rights, it is recommended to plan trainings on fetal rights for pediatric nurses.

Keywords: Fetus, rights, pediatric nurse, education, birth

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## INTRODUCTION

The rights of the fetus, based on the right to live, include the rights to life, health, nutrition, shelter and protection. (1) Fetal rights are violated due to acts such as negligence, ignorance, false beliefs and substance addiction. (2,3) In addition, the fetus might be harmed by the pathological conditions that occur in the fetus before birth and the failure to perform the diagnosis and treatment required for the health of the fetus or by the family who do not want the baby<sup>(2,4)</sup>, which leads to the rise of questions such as "Are there fetal rights? Does the pregnant woman have the right to terminate the pregnancy? Can a pregnant woman terminate the pregnancy at any time? Until when can a pregnancy be legally terminated? Is there a penalty for illegal actions to terminate a pregnancy?"(5,6) Although many rights, especially human rights, are guaranteed in the world with laws and codes, there is no legal regulation directly related to the rights of the fetus. However, there are legal decisions on the position of the fetus.<sup>(7)</sup>

The decisions made by the legal system to protect the fetus are important for the rights of the fetus. These decisions differ from country to country. In the Canadian legal system, the pregnant woman is not held responsible for the damage she causes to the fetus. (1) In contrast, while the Australian and UK legal systems do not accept the fetus as an individual and do not give the fetus a right in the prenatal period, those who cause fetal harm with live birth are held legally responsible for this. (8) According to the "Congenital Disabilities Act" enacted in England in 1976, the baby can sue those who harm him or her after birth and can be taken from his or her family for protection purposes if deemed necessary. (1,8) In the United States of America, the status of being held responsible for the harm caused to the fetus differs according to states. (8) In Turkey, it is understood from the entailments of articles in the Turkish Civil Code and Turkish Penal Code that the fetus is taken under protection from the very first days of the pregnancy. (9-11)

The first person a pregnant woman encounters and gets information from about prenatal care is the nurse. (12) For this reason, fetal rights come to the fore intensely in the field of nursing, which causes nurses from time to time to come into conflict with the rights of the fetus. Although the fetus has the right to live and be treated, both the family and the nurses should be able to make ethical decisions in case of possible dilemmas. (13) Pediatric nurses as defenders of the fetus, should inform pregnant women and the family about the rights of the fetus and assist the family in the decision-making process. (12) A study to assess the knowledge regarding fetal well-being among the staff nurses working in obstetrics and gynecological wards showed that 72.5% of staff nurses have average knowledge and 15% have poor knowledge regarding assessment of fetal well-being. (14) A quasi-experimental study showed that after participants completed a prenatal genetic nursing education program (PGNEP) workshop, the mean score of total information needs about prenatal genetic testing and nursing (I-PGTN) decreased from  $95.00 \pm 8.86$  to  $91.53 \pm 15.16$ . But this change was not statistically significant (p>0.05). (15) However, current nursing education does not sufficiently prepare nurses for the full range of competencies needed for effective prenatal fetal well-being. (16) In this direction, the purpose of this study was to determine the level of knowledge of pediatric nurses on fetal rights and to form the basis for training programs on fetal rights.

# **METHODS**

## Research design

The study was of cross-sectional design and conducted in the pediatric clinic of a training and research hospital in Corum, Turkey from October 2020 to March 2021.

## Research subjects

The study subjects were composed of pediatric nurses working in the pediatric clinic of a training and research hospital in Corum,

Turkey. No sample selection was made and the sample consisted of nurses (n=121), who were working between the dates (15.10.20/15.03.21) of the study and participated voluntarily. In the study, it was aimed to reach the whole population, so no sample size calculation was performed. The study was completed with 121 nurses. The inclusion criteria were being a pediatric nurse, accepting to participate in the study, not having a problem that would prevent communication, and willingness and volunteering to participate in the study. Nurses who did not work in the pediatric clinic were excluded.

## Data collection tools

The data were obtained through a data collection form developed by the principal investigator in line with the literature and expert opinions. (1,7,10,11) The data collection form consists of two parts. In the first part, there are 7 questions to determine the descriptive characteristics of pediatric nurses, and in the second part there are 8 statements to determine the pediatric nurses' knowledge levels about fetal rights. The questions about fetal rights were as follows: 1. Turkey has legislations directly dealing with the fetal rights; 2. it is legal to terminate the pregnancy within 10 weeks, depending on the mother's consent; 3. when anomalies incompatible with life are encountered, termination of pregnancy between 10-22 weeks of gestation is medically, legally and ethically appropriate; 4.no one has the right to take away the right of the fetus to be delivered alive and healthy, at the right time and with the right method after the 22nd gestational week, for any reason; 5. any person who performs an abortion of a child upon a woman without her consent shall be sentenced to a penalty of imprisonment for a term of five to ten years; 6. a person who, in the absence of medical necessity, performs an abortion of a child, upon a woman, who is more than ten weeks pregnant and with her consent, shall be sentenced to imprisonment for a term of two to four years; 7. where a woman

is pregnant due to an offence that she was a victim of, no penalty shall be imposed upon any person who terminates such pregnancy, where the term of pregnancy is not more than 20 weeks and there is consent from the woman; however this requires the termination of a pregnancy by expert doctors in a hospital; 8. a woman who willingly aborts a child where the term of pregnancy is more than ten weeks shall be sentenced to a penalty of imprisonment for a term up to one year and a judicial fine.

Those who gave a correct answer to each statement to determine the knowledge level of the participants about fetal rights were given 1 point, and 0 point was given to those who answered incorrectly or answered "do not know". The knowledge levels of the participants were calculated by adding these scores. A maximum of 8 points and a minimum of 0 point can be obtained from these statements. A high score indicates that the nurse has a high level of knowledge about fetal rights. Content validity and non-additive analyses were conducted regarding the validity of the form for determining the knowledge level of pediatric nurses about fetal rights. In order to evaluate the content validity of this form, it was submitted to the opinion of 5 experts in the field of child health and diseases nursing. The experts were asked to rate the questions as "item appropriate", "item not appropriate" and "item should be revised". Necessary changes were made in the form in line with the experts' opinions, the data collection tool was made ready for application, and reliability analyses of the questionnaire and noncollectibility analyses were carried out for 8 items determined by the experts. The additiveness of the questionnaire was tested using Tukey nonadditive analysis of variance. According to the results of the analysis of variance, 8 items are additive and there is a significant difference in the change between the measurements (p<0.001).(17,18) According to these results, the lowest and the highest score that can be obtained from the 8-item form is 0 and 8, respectively.

## Data collection

The data of the study were collected from pediatric nurses working in a training and research hospital between October 2020 and March 2021 and agreeing to participate in the study. The study was explained to the participants by the researchers and written informed consent statements were obtained from the nurses. Data collection forms were distributed to the pediatric nurses in October 2020 and the nurses were asked to fill in the data collection forms in 10-15 minutes in the hospital environment. The research data were collected by face-to-face interviews under the supervision of the researchers in a total of five days.

# Ethical dimension of the study

In order to conduct the study, approval was obtained from the ethics committee (30.09.2020/2020-96) and written permission was obtained from the training and research hospital, the institution where the study was planned to be conducted. Informed consent statements were obtained from the nurses who agreed to participate in the study upon informing them about the purpose of the study and the confidentiality of the information they gave.

## Statistical analysis

Statistical analyses were made with the SPSS package program. Numerical variables were presented as mean and standard deviation, and categorical variables as numbers and percentages. In statistical analysis, normal distribution of data for test selection was evaluated by Kolmogorov-Smirnov and Shapiro-Wilk tests. As a result, it was observed that all the questionnaire score data were not normally distributed. Since the data did not show a normal distribution, the Mann Whitney U test was used for two independent groups and Kruskal Wallis test was used for more than two groups. Bonferroni-corrected Mann-Whitney U test was used to determine the between-group differences. Questionnaire scores were presented as mean and standard deviation. Statistically, a value of p<0.05 was considered significant.

#### **RESULTS**

A total of 39.7% of the pediatric nurses participating in the study were in the age group of 26-31 years, 53.7% were married and 71.1% were undergraduate. It was determined that 55.4% of the nurses had incomes equal to their expenses, 45.5% worked as a nurse for 0-5 years, 23.1% had prior knowledge about fetal rights and 71.4% received this knowledge during undergraduate and graduate education. The distribution of the answers given to the questions about fetal rights by the pediatric nurses participating in the study is given in Table 1.

When the relationship between pediatric nurses' knowledge levels of fetal rights and their descriptive characteristics (Table 2) was examined, it was found that there was a statistically significant difference between the participants' mean scores of knowledge levels about fetal rights with their age, educational status, status of prior knowledge about fetal rights and where this knowledge was gained (p<0.05). It was determined that there was no statistically significant difference between the mean scores of knowledge level about fetal rights with the pediatric nurses' marital status, monthly income, and working years as a nurse (p>0.05).

## **DISCUSSION**

The findings which we have obtained from this study show that most of the pediatric nurses did not receive any education about fetal rights, that the majority obtained it during the undergraduate or graduate education, and that the knowledge level of those who had knowledge on the subject was found to be insufficient.

Fetal rights are one of the issues that have not been defined precisely and are not sufficiently raised in many countries.<sup>(1)</sup> Unlike patients' rights, the topic of fetal rights is not one of the subjects

Table 1.Distribution of the answers given by the pediatric nurses to the questions about fetal rights (n=121)

1. Turkey has legislations directly dealing with the fetal rights. (False)  2. It is legal to terminate the pregnancy within 10 weeks, depending on the mother's consent. (True)  3. When anomalies incompatible with life are encountered, termination of pregnancy between 10-22 weeks of	39.6	2	, 0		
weeks of	39.6	111	%	n	%
ent. (True) 87 ween 10-22 weeks of		9	5.0	<i>L</i> 9	55.4
ween 10-22 weeks of	71.9	16	13.2	18	14.9
92	62.8	18	14.9	27	22.3
4. No one has the right to take away the right of the fetus to be delivered alive and healthy, at the right time and with					
91	75.2	4	3.3	26	21.5
5. Any person who performs an abortion of a child upon a woman without her consent shall be sentenced to a					
53	43.8	3	2.5	65	53.7
6. A person who, in the absence of medical necessity, performs an abortion of a child, upon a woman, who is more					
than ten weeks pregnant and with her consent, shall be sentenced to imprisonment for a term of two to four years.					
49	40.5	4	3.3	89	56.2
7. Where a woman is pregnant due to an offence that she was a victim of, no penalty shall be imposed upon any					
person who terminates such pregnancy, where the term of pregnancy is not more than 20 weeks and there is					
consent from the woman. However this requires the termination of a pregnancy by expert doctors in a hospital.					
54	44.6	3	2.5	64	52.9
8. A woman who willingly aborts a child where the term of pregnancy is more than ten weeks shall be sentenced to a					
55	45.5	11			45.5
			4 8 11	3.3	64 68

Table 2.Knowledge levels on fetal rights according to the several variables in pediatric nurses

Variables	n	%	Median (Q1-Q3)	Test	p value
Age (years)					
20-25	35	28.9	0.40 (0.13-0.93)		
26-31	48	39.7	0.53 (0.00-1.00)	17337	0.010*
32-37	16	13.2	0.53 (0.27-0.80)	KW	0.018*
38-43	22	18.2	0.36 (0.00-0.93)		
Marital Status			,		
Married	65	53.7	0.46 (0.00-0.93)	MW	0.501
Single	56	46.3	0.47 (0.00-1.00)	U	0.591
Educational Status (Graduation)			,		
High school	16	13.2	0.40 (0.00-0.80)		
Undergraduate	86	71,1	0.46 (0.00-0.93)	KW	0.022*
Graduate	19	15.7	0.60 (0.07-1.00)		
Monthly Income					
Income <expense< td=""><td>32</td><td>26.4</td><td>0.40 (0.00-0.93)</td><td></td><td></td></expense<>	32	26.4	0.40 (0.00-0.93)		
Income=expense	67	55.4	0.53 (0.00-0.93)	KW	0.302
Income>expense	22	18.2	0.53 (0.07-1.00)		
Years of work as a nurse					
0-5	55	45.5	0.53 (0.00-1.00)		
6-10	35	28.9	0.46 (0.00-0.80)	17337	0.545
11-15	16	13.2	0.53 (0.13-0.80)	KW	0.545
16 years and more	15	12.4	0.33 (0.00-0.93)		
Prior Knowledge about Fetal Rights			,		
Yes	28	23.1	0.53 (0.20-0.93)	MW	0.012*
No	93	76.9	0.40 (0.00-1.00)	U	0.012*
Where prior knowledge about fetal right was gained					
Undergraduate/Graduate Education	20	71.4	0.60 (0.20-1.00)	MW	0.0164
Workplace (the hospital)	8	28.6	0.36 (0.20-0.93)	U	0.016*

Note: MWU: Mann Whitney U test; KW: Kruskal Wallis test; \*p<0.05

on the agenda in many countries such as UK, Netherlands, Sweden, Canada etc. as well as in Turkey. (1,7,12,19) The fetus can be harmed due to ignorance, insensibility and false beliefs of the mother and family. (7,20) When the mother and family have false information or insufficient knowledge, the first persons that they can get information from and can trust in are the nurses. Considering that nurses have the advocacy role for the patients and that pediatric nurses are the defenders of the fetus, (7,12,13) pediatric nurses are expected to have knowledge about this issue. While training on patient rights for nurses is included in the quality program of almost all hospitals, services such as education, training and consultancy on fetal rights are not common. In this study, it was determined that most of the pediatric nurses did not have prior knowledge about fetal rights (76.9%), and 71.4% of those who received information received it during undergraduate and graduate education. These results show that these pediatric nurses lack information about fetal rights and that they are not sufficiently informed about it in the hospital where they work.

Although rights such as human rights, women's rights and children's rights are guaranteed by laws in the world, there is no legal regulation directly related to the rights of the fetus. (1) This situation is no different in Turkey. However, the penalties are available in the Penal Code of Turkey that can be applied in case the fetus is harmed by the mother or others. (10) In our study, the majority of the pediatric nurses was found to have given the response "do not know" to the statement that "Turkey has legal regulations directly related to fetal rights" (55.4; Table 1). The fact that Turkey has no regulation directly related to fetal rights implies that pediatric nurses lack information about this question.

Studies show that termination of pregnancy in the first 10 weeks is safe for health<sup>(22)</sup>, and this is recognized by law in many countries such as Turkey, Germany, France, Spain, and the Netherlands.<sup>(20)</sup> According to Turkish Population Planning Law No. 2827, the legal termination limit of pregnancy is within 10 weeks, depending on the mother's consent.<sup>(23)</sup> In our study, it was determined that most of the pediatric nurses knew that termination of pregnancy within 10 weeks is legal (71.9%; Table 1), which might be due to the fact that pregnancy termination is one the most common situations that pediatric nurses should face in the hospitals.<sup>(24)</sup>

Article 99/1 of the Turkish Penal Code states that "Any person who performs an abortion of a child upon a woman without her consent shall be sentenced to a penalty of imprisonment for a term of five to ten years.", article 99/2 states that "A person who, in the absence of medical necessity, performs an abortion of a child, upon a woman, who is more than ten weeks pregnant and with her consent, shall be sentenced to imprisonment for a term of two to four years. "and article 99/ 6 states that "Where a woman is pregnant due to an offence that she was a victim of, no penalty shall be imposed upon any person who terminates such pregnancy, where the term of pregnancy is not more than 20 weeks and there is consent from the woman. However this requires the termination of the pregnancy by expert doctors in a hospital environment". Article 100/1 of the same law states that "A woman who willingly aborts a child where the term of pregnancy is more than ten weeks shall be sentenced to a penalty of imprisonment for a term of up to one year and a judicial fine."(10) In the present study, it was determined that more than half of the pediatric nurses gave to the questions about fetal rights (5,6,7 and 8) the incorrect answers of "False" and "Do not know" (Table 1). In line with all these results, it is seen that pediatric nurses have minimal knowledge of legal codes regarding abortion and miscarriage.

In this study, it was determined that most of the pediatric nurses did not have prior knowledge about fetal rights (76.9%), and that 71.4% of those who received information received it during undergraduate and graduate education. In this study, mean scores of pediatric nurses' knowledge level were found to be higher in the age group of 26-31 years compared to those in the other age groups, in graduates compared to high school graduates and undergraduates, in nurses receiving information about fetal rights compared to those who did not, and in those who received information during undergraduate / graduate education compared to those receiving education in the hospital where they work. The differences between the mean scores of the knowledge level were found to be statistically significant (p<0.05; Table 2). Unlike patients' rights, fetal rights is not one of the subjects on the agenda in many countries such as UK, Netherlands, Sweden, Canada etc. as well as in Turkey. (1,7,12,19) While training on patient rights for nurses is included in the quality program of almost all hospitals, services such as education, training and consultancy on fetal rights are not common. These results show that pediatric nurses lack information about fetal rights and that education and level of education increase the level of knowledge about the subject. (25) The research data collected to determine the knowledge level of the participants about fetal rights is limited to the answers given by nurses. Caution is thus needed in generalizing the study's finding.

## **CONCLUSION**

As a result of this study, it was found that most of the pediatric nurses did have prior knowledge about fetal rights, that the majority of those had obtained it during the undergraduate / graduate education, and that knowledge level of those who had knowledge on the subject was found insufficient. In this direction, there is a need for studies on fetal rights, which play an important role in the development of healthcare services. The effectiveness of in-service trainings for personnel by training units should be increased, and knowledge, attitude and behavior change

should be created in pediatric nurses. Activities and programs should be planned to establish the culture and to educate nurses and patient's relatives about fetal rights.

# **CONFLICT OF INTEREST**

There is no conflict of interest

## **AUTHORSHIP CONTRIBUTIONS**

SOA, APT and DKY contributed to writing the manuscript, SOA and APT contributed to design and data collection. SOA and APT contributed to analyzing the data. SOA contributed to revising the manuscript. All authors have read and approved the final manuscript.

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