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QUANTİTATİVE STUDY OF NURSING STUDENTS' KNOWLEDGE AND ATTITUDES ABOUT THE FACTORS AFFECTING FERTILITY

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ABSTRACT

The goal of this research was to look at nursing students' knowledge and attitudes about variables that impact fertility. This cross-sectional study was conducted on 530 nursing students studying at the University of Mosul, College of Nursing, between March and April 2021. The research data were collected by the researchers through an electronic questionnaire form that was created by examining the literature. Descriptive statistics were used in the evaluation of the data. The participants' average age was 20.21.8, and 87.1 percent of them were female. Consider the student's understanding of fertility-related variables. 73.5 percent of students said advanced age, 77.5 percent said obesity, 82.3 percent said genital abnormalities, 82.3 percent said testicular diseases, 85.1 percent said hormonal disorders, 75.8 percent said pituitary diseases, 76.0 percent said sexually transmitted diseases, and 76.0 percent said occupational exposure. 83.3 percent of student's smoke, 79.3% use alcohol, 79.8% use drugs, 54.0 percent do not exercise consistently, 85.4 percent consume an unhealthy diet and hormonal foods, 57.8% have sleep disturbances, 74.0 percent have anxiety, and 68.7% use longer gadgets. Laptops and the use of mobile phones by 67.7% of people are two lifestyle variables that have a detrimental impact on fertility. Regarding lifestyle factors that impact fertility, 78.3 percent of students do not smoke, 41.4 percent exercise regularly, and 63.1 percent eat a nutritious diet. It was shown that 57.3 percent of them have abnormal sleep patterns, 69.9% are stressed, 54.0 percent use laptop computers, and 98.2 percent use mobile phones. Nursing students are often well-versed in the issues related to infertility. Although they know better, many of them still have an outlook toward living a lifestyle that will have an adverse effect on their fertility.

1. INTRODUCTION

Infertility is a dysfunctional condition characterized by the inability to produce a clinical pregnancy after 12 months of unprotected intercourse or by a disturbance in the reproductive capacity of an individual as an individual or with a single partner [1]. It is estimated that 72.4 million couples of reproductive age worldwide suffer from primary or secondary infertility [2], [3]. While the infertility rate is 15% in our

country, it ranges between 8-10% in developed countries and 15-20% in developing countries [4], [5]. Infertility is a public health problem that directly affects individuals and can lead to negative psychological consequences and reduce the quality of life and well-being [6], [7]. Since man is a social being and one of his most basic needs is to live together with other people, the most crucial purpose of man is to provide the biological reproductive function to continue his life [8]. This basic need creates a vital awareness in protecting human fertility health. It has been observed that this awareness has an important place in developing healthy lifestyle behaviors, preventing infertility, and reaching the ideal level of fertility [9], [10]. With the effect of changing and developing technology in the modern world, the daily activities of individuals and the lifestyles they change have adverse effects on fertility health [11]. Not only changing attitudes and technology are among the reasons, but stress, which is the cause of technology and attitudes, is added to this table and shows its negative effect on fertility. Stress is shown as a cause of unexplained infertility in both men and women [12]. When we examine the factors affecting infertility; presence of infertile individuals in the family, advanced age, smoking, alcohol, substance use, nutrition, Body Mass Index (BMI), regular exercise activity, consumption of beverages containing caffeine such as coffee-cola, sleep disorders, menstrual disorders, reproductive organ anomalies, hormonal disorders, It is very important to determine and evaluate the effects of hygiene deficiencies, the use of mobile phones and laptop computers among technological goods, and the effects that increase exposure to heat such as sauna, jacuzzi and Turkish bath, which are considered as a healthy lifestyle [13- 15]. Nurses have important responsibilities in determining and evaluating the healthy lifestyle behaviors of infertile individuals, protecting fertility and bringing it to an ideal state, and providing the necessary counseling and nursing approaches for couples to cope with this situation in the presence of infertility. Informing infertile couples about the current situation, defining healthy lifestyle behaviors, and planning, implementation, evaluation and continuous training of nursing approaches about interventions and practices to be made in this direction are under the supervision of nurses who are health professionals [16- 18]. In this direction, nurses who organize every stage of this nursing approach should have sufficient knowledge, ability to cope with problems, and ability to follow innovations and technology in the field. It is important that nurses gain this awareness during their undergraduate education before starting their professional career. It is seen as a necessity for nursing students to have healthy lifestyle behaviors in order for women not to overcome the fertility problem in the reproductive age period, and to provide information about the factors affecting infertility for prevention and protection. For this reason, first of all, students should know the factors affecting fertility and have a positive attitude. In this direction, it was aimed to examine the knowledge and attitudes of nursing students about the factors affecting fertility.

2. MATERIAL AND METHODS

2.1 Type of Research

This research was done in cross-sectional type.

2.2 Place and Time of Research

The research was carried out in the nursing College at university of Mosul between March and April 2021.

2.3 Population and Sample of the Research

The population of the research consists of 1st, 2nd, 3rd and 4th grade students studying in the nursing College at university of Mosul during 2021.

2.4 Data collection tool

In the collection of data; A total of 50 questions prepared by researchers by examining the literature,

including information about students' socio-demographic characteristics (9 questions), habits, attitudes that affect fertility (15 questions), and factors affecting fertility negatively (26 questions). An information form was used.

2.5 Ethical Aspect of Research

The university's administrations provided us with written permission forms. Informed permission was acquired both verbally and in writing from the participants after explaining the study's goal to them.

2.6 Data Collection

Before starting the data collection, the participants were informed about the purpose of the study. It took approximately 10 minutes for the students who accepted to participate in the study to fill out the information form.

2.7 Statistical analysis

Statistically analyzed by IBM personal computer and statistical package SPSS 25.0 was used to evaluate the data. Quantitative results of the study are shown as mean ± standard deviation, and categorical results are shown as numbers (n) and percentage (%).

3. RESULTS

The students' average age was 20.2 years, with a standard deviation of 1.8 years. They were almost entirely female (87.2 percent). Students' knowledge of factors affecting fertility revealed that 72.8 percent were over the age of 30, and 77.5 percent were obese. Of the students who were aware of the factors affecting fertility, 82.3 percent had reproductive organ anomalies, 82.3 percent had testicular diseases and 85.1 percent had hormonal disorders. Of the students who were aware of sexually transmitted diseases and occupational exposures, 76.0 percent were over the age of 30, and 76.0 percent were sexually transmitted diseases. 83.2of students smoked, 54.0% did not engage in regular physical activity, 85.4% had a poor diet, including hormonal food intake, and 57.8% had a sleep issue. Anxiety, the use of laptop computers by 68.7 percent of women and the use of mobile phones by 67.7 percent of women were shown to be lifestyle choices that have an impact on fertility. According to the students' views, 78.3% of them do not smoke, and 81.3 percent do not drink alcohol. Additionally, 41.4% of them engage in regular physical activity, and 63.1 percent follow a healthy diet. According to the findings, 57.3% of the participants had irregular sleep patterns, 69.9% were stressed, and 54.0% utilized laptop computers and mobile phones.

4. DISCUSSION

Having information about the factors affecting fertility is very important both for having a healthy fertility period and for individual awareness of the behaviors that negatively affect fertility. In terms of maintaining a healthy fertility process, it is important that the nurse profession group, who is a health professional, and nursing students trained in this direction, both have sufficient knowledge and clinch their awareness of this process with their own lifestyle behaviors. The considerable lot of informed students claimed they learned what they know by reading and watching news reports. This discovery is in line with prior research on the subject [19- 22].

Nursing students' attitudes and knowledge regarding variables that impact fertility were assessed as part of our research, and the results were compared to those found in the national and international literature. According to the findings, he/she was free of illness, had no infertile relatives, and practiced good genital cleanliness. (Table 2).

According to [23], 48.7% of first-year students and 62.9% of fourth-year students had a strong understanding of sexual/reproductive health.

Fourth-year students scored the highest on the Sexual Attitude Scale, according to Erenoglu and Bayraktar. As students go through their academic careers, their understanding of reproductive health expands because it is included in their course work [23], [24].

Positive attitudes and behaviors exhibited by university students in the reproductive age affect fertility positively. Being anxious, reproductive organ anomalies, testicular diseases, hormonal disorders, hypothalamic-pituitary diseases, infertile individuals in the family, frequent urinary system infections, attention to genital hygiene, sexually transmitted diseases, wearing tight pants and tight underwear It was found that laptop computer use, mobile phone use, occupational exposures, exposure to potential chemical and physical toxic substances, and the use of condoms in sexual activity negatively affect fertility (Table 3). In a study that examined smoking behavior and the factors affecting it, it was determined that furthermore another study examined the knowledge, attitudes and practices related to fertility among women of reproductive age in the United States, 70% of women between the ages of 18-24 had alcohol use, 66% had a sexually transmitted disease, and 68% had cigarette consumption, 74% thought that overweight, 62% obesity, 88% stress, and 62% thought that irregular menstrual cycle would negatively affect fertility [25]. A Turkish research found that 27.4% of young individuals correctly identify the reproductive time [26]. Garcia et al. in their study examined the increase in fertility knowledge and awareness after special education, 50% of the women participating in the study found that advanced age (being over 35 years old) was a risk factor for infertility [27]. Additionally, an investigated that the benefits and costs of gaining knowledge about fertility in young adults and adolescents, it was found that young adults thought that the sense of anxiety could negatively affect fertility [28]. Similarly, the effect of knowledge status among women of reproductive age in North Queensland on natural fertility, infertility and medical assisted reproductive techniques was examined, 74% of university students were found to be affected by lifestyle factors (such as smoking and weight), 23.1% had endometriosis, and 20.1% were genetic. determined that 18.7% had polycystic ovary syndrome and 17.6% advanced age negatively affected fertility and considered it as a risk factor for infertility [29]. As a result of the literature review, no study was found with the same population for the purpose of our study, and the existing studies were conducted with different groups. However, the findings obtained in our study and the existing studies show parallelism with each other. Nursing students, who are knowledgeable about the factors that negatively affect fertility and raise awareness in individual behaviors, and who are health professionals in this direction, have an important place in order to maintain fertility in a healthy way by gaining a different perspective in the society.

5. CONCLUSION

Our study results show that; Most of the nursing students have knowledge about the factors affecting fertility. However, despite their knowledge, it is seen that most of them exhibit some attitudes and behaviors related to lifestyle that will negatively affect fertility. In line with the results; It is recommended that nursing students increase individual and social awareness by organizing information trainings about lifestyles that will negatively affect fertility, and implement practices to change their attitudes and behaviors towards lifestyle that will negatively affect fertility.

6. ACKNOWLEDGMENTS

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7. DISCLOSURE

The author reports no conflicts of interest in this work.

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Table 1 Socio-demographic characteristics of nursing students (n=530.

Gender	No	%
Female	462	87.2
Male	68	12.8
Class	No	%
1st Class	158	29.8
2. Class	105	19.8
3rd Class	125	23.6
4th grade	142	26.8
Mother Education Level	No	%
Elementary and below	368	69.4
High school and above	162	30.6
Father Education Level	No	%
Elementary and below	282	53.2
High school and above	248	46.8

n: Number %: Percent Mean: Mean SD: Standard Deviation

Table 2. Attitudes of nursing students towards fertility (n=530)

Smoking Status	n	%
Yes	115	21.7
No	415	78.3
Amount of Smoking	10.49±6.80	
Time to Exercise (day/week)	3.59±2.61	
Healthy diet and hormone-containing food consumption status		
Yes	335	63.2
No	195	36.8
Consumption of caffeinated beverages such as coffee and cola		
Yes	445	83.9
No	85	16.1
Sleep patterns		
Yes	227	42.8
No	303	57.2
The state of having anxiety		
Yes	370	69.8
No	160	30.2
Laptop use status		
Yes	287	54.2
No	243	45.8
Laptop usage time	7.80±9.06	
Cell phone usage status		
Yes	525	98.2
No	5	1.8
Cell phone usage time (day/week)	7.70 ±5.10	
The situation of being in places such as Jacuzzi-sauna		
Yes	52	9.8

No	478	90.2
Length of stay in places such as Jacuzzi-sauna	5.03±6.09	
Wearing tight pants and tight underwear		
Yes	391	75.8
No	139	24.2
Urinary tract infection status		
Yes	105	19.8
No	425	80.2
Frequency of urinary system infection (month/year)	2.00±2.34	
Presence of infertile individuals in the family		
Yes	12	2.3
No	518	97.7
Do you pay attention to the perineum-genital area hygiene?		
Yes	510	96.2
No	*20*	*3.8*

n: Number %: Percent Mean: Mean SD: Standard Deviatio

Table 3. Knowledge of nursing students about factors affecting fertility (n=530)

Advanced age (>35 years)	**n**	**%**
Yes	386	72.8
No	144	26.5
Obesity		**%**
Yes	411	77.5
No	119	22.5
Smoking		**%**
Yes	441	83.2
No	89	16.8
not exercising regularly		
Yes	282	53.9
No	248	46.1
Unhealthy diet and hormonal food consumption		
Yes	452	85.3
No	78	14.7
Consumption of caffeinated beverages such as coffee and cola		
Yes	387	73.1
No	143	26.9
Sleep disorders		
Yes	306	57.7
No	224	42.3
don't be anxious		
Yes	392	73.9
No	138	26.1
Menstruation disorders		
Yes	433	81.7
No	97	18.3
reproductive organ anomalies		
Yes	436	82.3
No	94	17.7
Testicular diseases		
Yes	435	82.4

No	95	17.6
hormonal disorders		
Yes	451	85.1
No	79	14.9
Hypothalamic–pituitary diseases		
Yes	402	75.8
No	128	24.2
Presence of an infertile person in the family		
Yes	403	76.1
No	127	23.9
Frequent urinary tract infections		
Yes	386	72.8
No	144	27.2
Not paying attention to perineal/genital hygiene		
Yes	377	71.1
No	153	28.9
Sexually transmitted disease status		
Yes	403	76.1
No	127	23.9
Don't wear tight pants and tight underwear		
Yes	373	70.4
No	157	29.6
Being in places such as jacuzzi-sauna		
Yes	261	49.2
No	269	50.8
Laptop use		
Yes	365	68.9
No	165	31.1
Cell phone use		
Yes	358	67.5
No	172	32.5
Occupational exposures (heat, weight lifting)		
Yes	421	79.4
No	109	20.6
Exposure to potential chemical and physical toxic substances		
Yes	436	82.3
No	94	17.7
Not using condoms (barrier family planning method) during sexual intercourse		
Yes	278	52.6
No	252	47.4