



Article

# Infertile Women's Awareness About Sexually Transmitted Disease in Al-Najaf City, Iraq

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**Abstract:** The study aim to identify women's awareness regarding sexually transmitted diseases and to find out the relationship between women's awareness and their demographic data (age, marital status, number of children, residency, educational level, occupation, using contraceptives, contraceptive methods, source of information about menopause problems). A cross-sectional descriptive approach was carried out through the present study in order to achieve the objectives stated earlier. The study was begun from December 2<sup>nd</sup>, 2023, to May 1<sup>st</sup>, 2024. The study is conducted in Al-Najaf City in Iraq in an infertility center. A non-probability (Purposive sample) sample of one hundred (130) women who attended infertility centers at Al-Najaf Al-Ashraf. The data collection is done by constructing a questionnaire by the interview technique with each woman, using the Arabic questionnaire version, and it consists of three parts: Part 1 includes socio-demographic characteristics, Part 2 Include (10) items concerned with information about STD, and part 3 concerned with infertile women's awareness about symptoms of STD. Validity of the study instrument is conducted through a panel of experts with years of experience in nursing. Results revealed that the majority the women recorded fair knowledge for overall items. There is a significant difference in the women's overall Knowledge level and Demographic Characteristics, at a p-value of less than 0.05, except for age, residence, and use of contraceptives; the p-value was more than 0.05. The majority of the women recorded fair awareness regarding sexually transmitted diseases. Recommendations about sexually transmitted diseases during antenatal health care for (secondary infertile women) by using pamphlet that explain about STD. Sexually transmitted disease, during antenatal health care for (primary infertile women) by advice and health teaching during visits to the infertile center.

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## 1. Introduction

Sexually transmitted infections (STI) include a series of diseases of diverse infectious etiology, in-which sexual transmission plays a primary epidemiologic role, although sometimes they can also spread differently, such as from mother to child or through blood products and tissue transfer. This term includes asymptomatic forms, since these can entail subclinical lesions with a potential for transmission. This is why this term is preferably used instead of the term "sexually transmitted disease", previously used [1].

STI is classified according to the type of organism causing the infection, which can be bacterial, fungal, viral, or of parasitic origin. *Neisseria gonorrhoeae* (*N. gonorrhoeae*) and *Chlamydia trachomatis* cause lymphogranuloma venereum, which is characterized by a transient genital lesion at the site of infection on the penis, urethra, scrotum, vagina, cervix, or external female genitalia [2].

According to WHO Sexually transmitted diseases (STDs) are spread predominantly by sexual contact, including vaginal, anal and oral sex. Some sexually transmitted diseases can also be transmitted through non-sexual means, such as via blood or blood products. Many sexually transmitted diseases, including syphilis, hepatitis B, human immunodeficiency virus (HIV), chlamydia, gonorrhoea, herpes, and human papillomavirus (HPV), can also be transmitted from mother to child during pregnancy and childbirth [3].

Women's reproductive organs are more susceptible to damage if an infection is left untreated, and STDs in women often remain undetected and untreated as many women are asymptomatic. Besides, women are more prone to STDs due to social factors such as lower social status and difficulties in gaining control over their own reproductive lives [4].

## 2. Materials and Methods

A cross-sectional descriptive approach was carried out through the present study in order to achieve the objectives stated earlier. The study was begun from December 2<sup>nd</sup>, 2023, to May 1<sup>st</sup>, 2024. The study is conducted in Al-Najaf City in Iraq in an infertility center. A non-probability (Purposive sample) sample of one hundred (130) women who attended infertility centers at Al-Najaf Al-Ashraf.

The data collection is done by constructing a questionnaire by the interview technique with each woman, using the Arabic questionnaire version, and it consists of three parts: Part 1 includes socio-demographic characteristics, Part 2 Include (10) items concerned with information about STD, and part 3 concerned with infertile women's awareness about symptoms of STD. Validity of the study instrument is conducted through a panel of experts with years of experience in nursing.

## 3. Results

**Table 1.** Distribution of demographic Characteristics for the study sample

Demographic Data	Rating and Inter-vals	Total	
		F	%
Age	15-24	55	42.31
	25-35	49	37.69
	36-45	25	19.23
	46-55	1	0.77
	56-65	0	0
Residence	Urban	98	75.38
	Rural	32	24.62
Occupation	Housewife	115	88.46
	A worker	7	5.38
	Employee	8	6.15
USE OF	Condom	11	8.46
	Hormonal contraceptive	30	23.08
	None of them	78	60
	Both	11	8.46

<b>Education</b>	Illiterate	13	10
	Read and write	36	27.69
	<b>Primary</b>	<b>41</b>	<b>31.54</b>
	High school	24	18.46
	Under graduate	6	4.62
	Post graduate	10	7.69
<b>Income</b>	Poor or limited	8	6.15
	<b>Moderate</b>	<b>120</b>	<b>92.31</b>
	Rich or good	2	1.54
<b>Total</b>		<b>130</b>	<b>100</b>

**Table 2.** Assessment of the awareness items of the women's infertility, about STDs

Awareness Items		Total				Assess.
		F	%	MS	SD	
1. Do you have information about sexually transmitted diseases?	Yes	52	40	1.60	.49	Fair
	No	78	60			
2. Did you know that sexually transmitted diseases are transmitted through sexual contact?	Yes	75	57.69	1.42	.50	Fair
	No	55	42.31			
3. Do you know or heard about organisms that cause sexually transmitted diseases and its pathogenesis	Yes	27	20.77	1.79	.41	Good
	No	103	79.23			
4. Did you know that personal hygiene for both partners plays a role in preventing sexual infections?	Yes	106	81.54	1.18	.39	Poor
	No	24	18.46			
5. Did you know that sexually transmitted diseases can lead to infertility?	Yes	71	54.62	1.45	.50	Fair
	No	59	45.38			
6. Did you know that some sexually transmitted diseases can have no obvious symptoms and then lead to serious illness?	Yes	50	38.46	1.62	.49	Fair
	No	80	61.54			

7. Is there a periodic visit to the specialist doctor to conduct the necessary analyzes to avoid the exacerbation and development of the injury?	Yes	69	53.08	1.47	.50	Fair
	No	61	46.92			
8. Do you know how to avoid sexually transmitted diseases and avoid developing the infection?	Yes	68	52.31	1.48	.50	Fair
	No	62	47.69			
9. Did you know that pregnancy, diabetes, abuse of antibiotics, and weak immunity are risk factors for sexually transmitted diseases?	Yes	45	34.62	1.65	.48	Fair
	No	85	65.38			
10. Did you know that sexual factors are transmitted to the fetus and cause various diseases?	Yes	69	53.08	1.47	.50	Fair
	No	61	46.92			

% = percentage, F. = frequency, M.S: Mean of score, Poor (mean of scores 0-1.33), Fair (mean of scores 1.34-1.67), Good (mean of scores 1.68 and more), SD: Standard Deviation, Assess.: Assessment.

**Table 3.** Assessment of the awareness overall items of the infertility women, about STDs

Overall Items	Total							
	F	%	MS	F	%	MS	SD	As-
Assessment of the Awareness of the infertile women about STDs	Poor	5	29.41	3	29.2	1.48	.12	Fair
	Fair	9	52.94	8	3			
	Good	3	17.65	4	37.6			
				9	9	1.51		
				4	33.0			
				3	8			

% = percentage, F. = frequency, M.S: Mean of score, Poor (mean of scores 0-1.33), Fair (mean of scores 1.34-1.67), Good (mean of scores 1.68 and more), SD: Standard Deviation, Assess.: Assessment.

**Table 4.** Distribution of infertile women's awareness infertile's about symptoms of STD (n=130)

Women symptoms		Total	
		F	%
1. A large amount of a thin, often foul-smelling discharge from the vagina, might be clear, white, gray, yellow or green	Yes	89	68.46
	No	41	31.54
2. Genital redness, burning and itching	Yes	74	56.92
	No	56	43.08
3. Pain with urination or sex	Yes	81	62.31
	No	49	37.69
4. Discomfort over the lower stomach area	Yes	83	63.85
	No	47	36.15
5. Abdominal pelvic information/ Pelvic pain	Yes	80	61.54
	No	50	38.46
6. It may lead to cervical cancer	Yes	6	4.62
	No	124	95.38
7. Eye inflammation	Yes	14	10.77
	No	116	89.23
8. Heart disease	Yes	2	1.54
	No	128	98.46
9. Cancer	Yes	4	3.08
	No	126	96.92
10. Arthritis	Yes	59	45.38
	No	71	54.62
11. Abortion	Yes	54	41.54
	No	76	58.46

% = percentage, F. = frequency.

**Table 5.** Relationship between Demographic Characteristics of the women and their overall awareness level

Demographic Characteristics	Rating and Intervals	Overall Awareness		Statistical Test	P-Value
		Mean	SD		
Age	15-24	1.53	.30	1.208#	0.310 (NS)
	25-35	1.49	.28		
	36-45	1.50	.26		
	46-55	2.00	0		
	56-65	0	0		
Residence	Urban	1.49	.28	1.700 $\psi$	0.092 (NS)
	Rural	1.59	.28		
Occupation	Housewife	1.55	.27	12.928#	0.0001 (HS)
	A worker	1.37	.18		

	Employee	1.09	.12		
USE OF	Condom	1.53	.23	1.385#	0.250 (NS)
	Hormonal contraceptive	1.42	.25		
	None of them	1.54	.30		
	Both	1.57	.29		
	Illiterate	1.68	.24		
Education	Read and write	1.66	.26	12.986#	0.0001 (HS)
	Primary	1.55	.21		
	High school	1.37	.25		
	Under graduate	1.18	.12		
	Post graduate	1.16	.23		
	Poor or limited	1.59	.34		
Income	Moderate	1.52	.28		
	Rich or good	1.00	.00		

#: Statistics was done using One Way ANOVA,  $\psi$ : Statistics was done using independent t test, NS: non significant, S: significant, HS: high significant.

#### 4. Discussion

##### Part I: Discussion of Socio-Demographic Characteristics of the Study Sample:

According to (Table 1) shows that, about half % of the study sample are age group (15-24) year. This result disagrees with [5]. Regarding with the Residence & Occupation, Income majority of study sample are lives in urban, housewife with moderate income. Regarding to level of education, the majority of the study sample are primary that agree with [6] but [7] disagree with result.

##### Part II: Discussion According the knowledge items of the women's infertility (Tables 2)

According to (Table 2) indicate the women recorded fair awareness for overall items This result agrees with [8] and agree with other study mediated by [9].

##### Part III: Discussion According to their infertile women's awareness about symptoms of STD

According to (Table 3) indicate the majority of study sample has poor awareness about symptoms of STD, this study agree with [10] and also agree with another study by [11]. [12] indicate that low level of knowledge about STDs. educational level were associated with this knowledge. This study necessitates the construction and employment of a women.

##### Part IV: Relationship between Demographic Characteristics of the women and their overall awareness level

There is a significant difference in the women overall awareness level and their Demographic Characteristics, at a p-value of less than 0.05, except age, residence, and use of contraceptives; the p-value was more than 0.05. [13] & [2] agree with this study.

## 5. Conclusion

According to the study findings and discussion, the study concluded the following: revealed that majority the women recorded fair awareness for overall items. There is significant difference in the women overall awareness level and their Demographic Characteristics, at a p-value of less than 0.05, except age, residence, and use of contraceptives; the p-value was more than 0.05.

## 6. Recommendation

Based on the study conclusions, the researchers recommend the following:

1. Recommendations about sexual transmitted disease, during antenatal health care for (secondary infertile women) by using panflet that explain about STD.
2. Recommendations about sexual transmitted disease, during antenatal health care for (primary infertile women) by advise and heath teaching during visit infertility center.

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