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Assessment of Health Behaviors Knowledge Regarding Vaginal Discharge among Women Attending Maternity Hospitals in Baghdad City.

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Abstract: *The women's reproductive organs easily affected by infections through her life span caused by many factors and through different routes, can be by their husbands, through her bad personal hygiene , unhealthy practice during intercourse and ignorance of abnormal discharge signs and symptoms ,wet and damp perennial area, wearing improper underwear cloth and also most affected women are low educated and low socio-economic status [1] .*

Objective: *To assess women's health behaviors knowledge regarding vaginal discharge.*

Methods: *A descriptive analytic study design conducted between 15th January & 30th March 2017 at Fatima Al Zahra maternity and Pediatric Hospital , Al Elwia maternity Teaching Hospital, Al Karkh maternity Hospital , Al Emamain Al Kadhemain teaching hospital, and Baghdad Teaching Hospital. Purposive sample includes (200) women diagnosed with vaginal discharge attending maternity hospitals in Baghdad city. A questionnaire constructed about knowledge regarding health behaviors. A pilot-test is conducted in order to determine the reliability of the questionnaire in a sample of (10) women who were excluded from the study sample. Content validity was examined by a panel of (12) experts. Data was analyzed through the use of SPSS version 20.*

Results : *The study results shows that the level of knowledge for health behaviors regarding vaginal discharge the highest percentage (75.5%) of study sample were at (Unacceptable) level of health behaviors knowledge , while the lowest percentage (24.5%) were at (Acceptable) level of health behaviors knowledge . There were statistical significant differences between level of knowledge, with socio demographic characteristics at age only. There were a statistical significant differences between level of knowledge with reproductive characteristics at (Husband suffering from STD) at* ***P<0.05****, while there were no statistical significant differences with the leftover study variable.*

Conclusion: *This study shows that there is (Unacceptable) level of women's health behaviors knowledge regarding vaginal discharge.*

Recommendations: *Health care provider should prepare and implement health programs for raising the community Awareness about vaginal discharge characteristics and early medical checkup that will improve hygienic practices and therefore decrease abnormal vaginal discharge.*

Keywords: *knowledge, vaginal discharge, causative agents.*

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I. Introduction

Vaginitis (inflammation of the vagina) is the most common gynecologic condition encountered in the office. It is a diagnosis based on the presence of symptoms of abnormal discharge, vulvovaginal discomfort, or both . Cervicitis may also cause a discharge and sometimes occurs with vaginitis. Discharge flows from the vagina daily as the body's way of maintaining a normal healthy environment . Normal discharge is usually clear or milky with no malodor. A change in the amount, color, or smell; irritation; or itching or burning could be due to an imbalance of healthy bacteria in the vagina, leading to vaginitis [2] . Three common types of infections are associated with vaginal discharge bacterial vaginosis, trichomoniasis and Vulvovaginal candidiasis [3] . Also Chemicals in soaps, sprays, or even clothing that come in contact with this area could be irritating the delicate skin and tissues [4].

It was reported that the incidence of symptomatic women are bacterial vaginosis (40-45%), vaginal candidiasis (20-25%), and trichomoniasis (15-20%); yet 7-72% of women with vaginitis may remain undiagnosed [2] . The commonest causes of altered vaginal discharge in women of reproductive age, infective (non-sexually transmitted) bacterial vaginosis Candida and infective (sexually transmitted) *trichomonas*

vaginalis or non-infective foreign bodies (e.g.retained tampons, condoms,) [5] . The causes of vaginal discharge may be physiological or pathological conditions including cervicitis, aerobic vaginitis, atrophic vaginitis and mucoid ectopy. A lot of symptoms and signs are non-specific and many women have other conditions such as vulvar dermatoses or allergic and irritant reactions [3] .

Other causes of vaginal discharge include foreign bodies (e.g. retained tampons or condoms) exclusion of infective and other causes can help confirm that a vaginal discharge is physiological. There is some association between methods of contraception and vaginal discharge. Women complaining of vaginal discharge should be asked about current and past contraception [6] .

II. Methods

A descriptive analytic study design conducted between 15th January & 30th March 2017 at Fatima Al Zahra maternity and Pediatric Hospital , Al Elwia maternity Teaching Hospital, Al Karkh maternity Hospital , Al Emamain Al Kadhemain teaching hospital, and Baghdad Teaching Hospital. Purposive sample includes (200) women diagnosed with vaginal discharge attending maternity hospitals in Baghdad city. A questionnaire constructed about health behaviors knowledge regarding vaginal discharge assessment tool were designed and prepared by the researchers. A pilot study conducted in order to determine the reliability of the questionnaire in a sample of (10) women who excluded from the study sample (r = 0.926) . Content validity was determined through a panel of (12) experts .The data was collected after obtaining the agreement from women to participate in this study. The study instrument was consisted of five main parts which include: Socio demographic characteristics, reproductive variable, sign &symptoms & laboratory tests, and women's knowledge regarding health behaviors. Data are analyzed through the use of SPSS (Statistical Package for Social Sciences) version 20

III. Results

Table (1) Women's Demographic Characteristics (n = 200)

Demographic Variable	**F.**	**%**
Age group (years)		
≤ 20	33	16.5
20-26	39	19.5
27-33	36	18.0
43-40	44	22.0
≥ 40	48	24.0
$\bar{X}$ ± SD = 32.05 ± 10.389 Min=16 Max=54		
Number of Marriage year		
≤ 5	67	33.5
5 -10	42	21.0
11 -16	32	16.0
17 -22	20	10.0
≥22	39	19.5
Age at Marriage		
≤ 15	40	20.0
15 -20	92	46.0
21 -26	43	21.5
27 -32	16	8.0
≥32	9	4.5
$\bar{X}$ ± SD = 19.68 ± 5.261 Min=11 Max=38		
Previous Husbands Marriage		
Yes	18	9.0
No	180	90.0
Level of education		
Illiterate	25	12.5
Read and write	5	2.5
Primary school graduate	75	37.5
Intermediate school graduate	48	24.0
Secondary school graduate	28	14.0
Institute graduate	6	3.0
College graduate and more	13	6.5
Occupation		
Nongovernmental occupation	2	1.0
governmental occupation	30	15.0
House wife	168	84.0
Monthly Income		
Enough	119	59.5
Enough somewhat	63	31.5
Not Enough	18	9.0

Table (1) results shows that the highest percentage (24%) of participants was at age group (≥ 40) years, (33.5%) for (≤ 5) Marriage year , less than half (46.0%) for (15 -20) age at Marriage, more than half (90%) for no previous husbands marriage , nearly two third of them (60.8%) married for (1-9) years, more than quarter of them (37.5%) had primary school graduation , the majority of women (84%)were housewives, more than half of the study sample (59.5%)were mostly sufficient income .

Table (2) Types of Vaginal Discharge , Signs and Symptoms and Laboratory Analysis (n=200)

Items		Yes		No	
		F.	%	F.	%
1	**Type of vaginal discharge**				
1.1	**White clear**	122	61.0	78	39.0
1.2	**Gray or yellow**	40	20.0	160	80.0
1.3	**White like cheese**	46	23.0	154	77.0
1.4	**Milky like fish odor**	26	13.0	174	87.0
1.5	**Frothy greenish**	1	0.5	199	99.5
1.6	**Bloody or brown**	3	1.5	197	98.5
2	**Signs and Symptoms**				
2.1	**Do you have bad odors**	129	64.5	71	35.5
2.2	**Do you have itching or irritation**	142	71.0	58	29.0
2.3	**Do you have sore in vagina**	46	23.0	154	77.0
2.4	**Do you have burning in urinary**	124	62.0	76	38.0
2.5	**Do you have pain during intercourse**	132	66.0	68	34.0
2.6	**Do you have sever burn during intercourse**	114	57.0	86	43.0
3	**Laboratory analysis**				
3.1	**Do you have laboratory analysis, if yes**	198	99.0	2	1.0
3.2	**Cervical swab**	28	14.0	172	86.0
3.3	**general urine exam**	183	91.5	17	8.5

The results shows in table (2) that the most (61%) of the study sample have White clear, (20%) gray or yellow, (23%) white like cheese, (13%) milky like fish odor, (0.5%) frothy greenish , (1.5%) bloody or brown, the sign and symptoms, (64.5%) having bad odor, (71%) having itching and irritation, (23%) having vaginal sore, (62%) having burning sensation during urination, (66%) having pain during intercourse, and (57%) having sever burn during intercourse, laboratory analysis, (99%) having laboratory analysis, those were (14%) only having cervical swab, and (91.5%)haing general urine examination.

Table(3) : Women's Health Behaviors Knowledge regarding vaginal discharge (n=200) .

Items		Yes		No		MS	RS %	Ass.
		F.	%	F.	%			
1-	**The best method to wash external genital area from front to back**	137	68.5	63	31.5	1.69	85	Mod
2-	**Wash the area by using douche in the W.C. harm the area**	49	24.5	151	75.5	1.25	63	Low
3-	**Wash from back to front cause infections**	69	34.5	131	65.5	1.35	68	Low
4-	**Using cotton under wear cloth lead to absorbed the sweat**	103	51.5	97	48.5	1.52	76	Mod
5-	**Random wash for the area transmit germs**	90	45.0	110	55.0	1.45	73	Low
6-	**Nylon underwear lead to irritation and itching**	119	59.5	81	40.5	1.60	80	Mod
7-	**Narrow underwear lead to increase sweat and stay wet for long time**	129	64.5	71	35.5	1.65	83	Mod
8-	**Exposing the underwear for sunlight kills the germ**	144	72.0	56	28.0	1.72	86	Mod
9-	**Wide underwear not lead to sweat and become comfortable**	134	67.0	66	33.0	1.67	84	Mod
10-	**In abnormal discharge, attend to health care center**	69	34.5	131	65.5	1.35	68	Low
11-	**Using plenty of perfumed douches lead to infections**	64	32.0	136	68.0	1.32	66	Low
12-	**Practicing frequent intercourse lead to infections**	125	62.5	75	37.5	1.63	82	Mod

MS: Mean Score, RS: Relative Sufficiency, Cut-off point=1.5

Table (3) results shows that women's health behaviors knowledge regarding vaginal discharge presented that the items (1, 4,6,7,8,9,12) have moderate assessment with moderate mean score and relative sufficiency as follows: item (1- The best method to wash external genital area from front to back, MS:1.69; RS:85%) ;item (4- Using cotton under wear cloth lead to absorbed the sweat, MS:1.52; RS:76%); item (6- Nylon underwear lead to irritation and itching, MS: 1.60; RS: 80%) ; item(7- Narrow underwear lead to increase sweat and stay wet for long time, MS: 1.65; RS: 83%) ; item (8- Exposing the underwear for sunlight kills the germ, MS: 1.72; RS: 86%) ; item (9- Wide underwear not lead to sweat and become comfortable, MS: 1.67; RS: 84%) ; item (12- Practicing frequent intercourse lead to infections, MS: 1.63; RS: 82%) . While the leftover items show low assessment with low mean score and relative sufficiency.

Table(4) : Level of Knowledge regarding Health Behaviors among Women with Vaginal Discharge (n=200)

Level of knowledge	F.	%
Unacceptable	151	75.5
Acceptable	49	24.5

Table (4) shows that the level of knowledge for health behaviors regarding vaginal discharge the highest percentage (75.5%) of study sample were at (Unacceptable) level of health behaviors knowledge , while the lowest percentage (24.5%) were at (Acceptable) level of health behaviors knowledge .

Table (5): Relationship between Women's Level of Knowledge regarding Health Behaviors about vaginal discharge and Socio-Demographic Characteristics (n=200) .

Socio-Demographic Variables		Knowledge Level				Statistical Test			Sig.
		Acceptable		Unacceptable					
		F	%	F	%	χ^2	df	P-value	
Age/ years	≤ 20	12	36.4	21	63.6	10.917	4	.028	S*
	20-26	11	28.2	28	71.8				
	27-33	13	36.1	23	63.9				
	43-40	7	15.9	37	84.1				
	≥ 40	6	12.5	42	87.5				
Marriage year	≤ 5	22	32.8	45	67.2	5.627	4	.229	NS*
	5 -10	11	26.2	31	73.8				
	11 -16	4	12.5	28	87.5				
	17 -22	4	20.0	16	80.0				
	≥22	8	20.5	31	79.5				
Age at marriage	≤ 15	11	27.5	29	72.5	2.595	4	.628	NS*
	15 -20	23	25.0	69	75.0				
	21 -26	12	27.9	31	72.1				
	27 -32	2	12.5	14	87.5				
	≥32	1	11.1	8	88.9				
Educational level	Illiterate	8	32.0	17	68.0	3.501	6	.744	NS*
	Read &Write	2	40.0	3	60.0				
	Primary School graduate	17	22.7	58	77.3				
	Intermediate school	9	18.8	39	81.2				
	Secondary school	9	32.1	19	67.9				
	Institute graduate	1	16.7	5	83.3				
	College graduate &more	3	23.1	10	76.9				
Occupation	Nongovernmental occupation	0	0.0	2	100.0	. 726	2	. 696	NS*
	governmental occupation	8	26.7	22	73.3				
	House wife	41	24.4	127	75.6				

***NS: Non Sig at P> 0.05; S: Sig. at P<0.05**

Table (5) shows that there were a statistical significant differences between level of knowledge regarding women's health behaviors with socio-demographic characteristics with(Age) **at P> 0.05**, while there were no statistical significant differences with (Marriage year, Age at marriage , Level of education and Occupation) **at P> 0.05**.

IV. Discussion

The current study results shows that the type and the color of women's vaginal discharge as follows: (61%) white clear discharge, (20%) gray or yellow, (23%) white like cheese, (13%) milky like fish odor, (0.5%) frothy greenish , (1.5%) bloody or brown. The results also shows that (71%) having itching and irritation, (66%) having pain during intercourse,(64.5%) having bad odor, (62%) having burning sensation during urination, (57%) having sever burn during intercourse and (23%) having vaginal sore. In addition to that (14%) only having cervical swab, and (91.5%) having general urine examination. Mohammed & collegeous reported that 28.2% of the studied group complained of abnormal vaginal discharge and the more commonly color of discharge was whitish (16.9%) but in the present study about more than half of the women complained of white vaginal discharge as they reported [7] . This study is in agreement with Rabiu & Gulati, who reported that abnormal vaginal discharge were itchiness and scratching (n=135, 24.5%), lower abdominal pain (n=79, 14.4%), burning sensation (n=62, 11.3%), pain during intercourse (n=13, 2.4%) , and this were positive predictors to seek medical advice. Similarly, having other symptoms with pathological vaginal discharge has been found to be a motivating factor to seek treatment [8] . Chaudhary & collegeous found that the prevalence and determinants of vaginal secretion among sexually active women in India that gynecological symptoms like itching, lower abdomen pain were found to be strongly correlated with abnormal vaginal discharge[10] .

Regarding to women's health behaviors knowledge concerning vaginal discharge presented that the items (1, 4,6,7,8,9,12) have moderate assessment with moderate mean score and relative sufficiency as follows:

item (1- The best method to wash external genital area from front to back, MS:1.69; RS:85%) ;item (4- Using cotton under wear cloth lead to absorbed the sweat, MS:1.52; RS:76%); item (6- Nylon underwear lead to irritation and itching, MS: 1.60; RS: 80%) ; item(7- Narrow underwear lead to increase sweat and stay wet for long time, MS: 1.65; RS: 83%) ; item (8- Exposing the underwear for sunlight kills the germ, MS: 1.72; RS: 86%) ; item (9- Wide underwear not lead to sweat and become comfortable, MS: 1.67; RS: 84%) ; item (12- Practicing frequent intercourse lead to infections, MS: 1.63; RS: 82%) . While the leftover items show low assessment with low mean score and relative sufficiency.

The summary results shows that the highest percentage (75.5%) level of knowledge for health behaviors regarding vaginal discharge were at (Unacceptable) level , while the lowest percentage (24.5%) were at (Acceptable) level of health behaviors knowledge. This result is in agreement with Mohamed & collegeous; Bobhate & Shrivastava stated that there was significant association between having good knowledge and good practice regarding reproductive tract infection [11,12] . Current study was in agreement with the study of Nielsen& Onal, who reported that the majority of the participants had inadequate level of knowledge on vaginal discharge. The women from estate community mainly provide estate labor which limits them from exposure to awareness programmes and other outside health services. The structure of the living environment, lack of access for sources of information and the poor educational level can lead to many unhealthy practices among this community. Similarly, studies done in Vietnam and Istanbul reported that identification of vaginal discharge as a symptom associated with suspected reproductive tract infections was poor among women [13.14] .

The current study results shows that there were a statistical significant differences between level of knowledge regarding women's health behaviors with socio-demographic characteristics with(Age) **at P: 0.028**, while there were no statistical significant differences with (Marriage year, Age at marriage , Level of education and Occupation) **at P> 0.05**. The age were significant with level of knowledge ,when so ever she was young ,they were more acquire to the information and protect themselves from infection and make good health behaviors practices during relationship.

Goldman ;Holmes and collegeous stated that nurses can assist patients in assessing their own risk, recognition of risk is a first step before changes in behavior occur, patients should be discouraged from assuming that a partner is "safe" without open, honest discussion, educational counseling , and role playing may all be helpful in teaching women to follow the proper way, because Chlamydia, gonorrhea, and other STDs may have a serious effect on future health and fertility and because many STDs can be prevented ,and the nurse can play a major role in talking with patients about how to make sex as safe as possible, exploring options with patients, determining their use of safer sex practices and their knowledge deficits, and correcting misinformation may prevent morbidity and mortality[15,16] .

V. Conclusion

The women having different types of vaginal discharge ,with bad odor, , itching and irritation, vaginal sore, burning sensation during urination, pain during intercourse, and sever burn during intercourse, with only few women having cervical swab. The level of knowledge for health behaviors regarding vaginal discharge the highest percentage of study sample were at (Unacceptable) level of health behaviors knowledge.

Recommendation

- Health care provider should prepare and implement health programs for raising the community awareness about Vaginal discharge characteristics and early medical checkup that will improve hygienic practices and therefore decrease abnormal vaginal discharge.
- Creating community awareness about health care facilities and instills self concern in women for their own health needs.

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