

## **Knowledge, Attitude and Seeking Care Behaviors of Women about Leucorrhea**

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### **ABSTRACT**

**Background:** Leucorrhea (vaginal discharge) is a condition of persistent and excessive vaginal discharge it is one of the most common chief compliant in the world. **The aim of the study** is to assess knowledge, attitude and seeking care behaviors of women about Leucorrhea in Al-Azhar University Hospital, in Damietta city. The sample size was 500 women their Age between 15-45 years **and** all women married and un married, **the tools** for data collections included 2 questionnaire sheets, first one included three parts. Part I: Patients' socio demographic characteristics. Part II: Questions about knowledge of women about Leucorrhoea, and Part III: Questions about Leucorrhoea seeking care behaviors. Second questionnaire sheet based on Likert scale, it included: Questions about women attitude about leucorrhea, **Results** shows that most of studied women had unsatisfactory level of knowledge. Most of them had positive attitude toward vaginal care during discharge. And most of them had satisfactory level of seeking care behavior regarding leucorrhea care. There is significant statistically relation or correlation between studied women's socio-demographic characteristics and their total score of knowledge or total score of seeking. **The study recommended** that improved women's knowledge and clinical practices regarding leucorrhea care and design health teaching programs according their needs. Continue research in this topic.

**Key words:** *Leucorrhoea, Knowledge, Attitude and seeking care*

## INTRODUCTION

The International Conference on Population and Development (ICPD) **in Canada in 2007**, defined reproductive health of an individual as a state of complete physical, mental and social well-being and not just the absences of sickness or illness, in all matters relating to the reproductive system and to its functions and processes. Despite, reproductive health being the major focus of the ICPD, it was dropped out of the advancement objectives (*Joshi et al, 2008*).

Leucorrhea (vaginal discharge) is a condition of persistent and excessive vaginal discharge. It is one of the most common chief complains in clinical medicine and records for more than 10 million woman's yearly. Some women are troubled by a discharge that is not profuse whilst others interpret a heavier discharge as normal. (*National Center for Health Statistic, 2008; National Ambulatory Medicine Care Survey, 2009*).

Vaginal discharge (leucorrhea) may be physiological or pathological. In physiological discharge normal vaginal flora (lactobacilli) colonizes the vaginal epithelium and may have a role in defense against infection. They maintain the normal vaginal pH between 3.8 and 4.4. But abnormal vaginal discharge often prompts women to seek screening for sexually transmitted infections (STIs) (*Thomas, 2014*).

Genital tract infections from one of the major burdens of disease in developing countries, and includes infections caused due to any (or combination) of the three factors: iatrogenic, endogenous, and sexually transmitted. While there are several symptoms that define the disease, the most commonly reported among the women is that of abnormal vaginal discharge (or Leucorrhea) (*Joshi et al, 2008*).

The symptom may appear at any age, as in infancy, in childhood, in the child bearing period, in the menopausal years and during senescence but it is more common among women in reproductive age group. The normal vagina is lined by squamous epithelium. It is richly colonized by a bacterial flora, predominantly Lactobacillus, and has an acidic pH <4.5 (*Thomas, 2014*).

Women may sometimes complain of a clear white or mucoid discharge other than prior to menses or at mid cycle. Such discharges may originate from the vagina, ovaries, fallopian tubes or most commonly the cervix. It represents desquamation of vaginal epithelial cells because of the effects of estrogen on the vaginal mucosa. A woman who has increased whitish discharge will experience weakness and lethargy. It is seen as thick and sticky white colored discharge from the vagina between the periods. It can also be accompanied by headache for some women. Due to frequent discharge, there may be pain in the calf muscle and in the lumbar region (**Chance, 2014**).

Various community based studies in developing countries have revealed that this morbidity and general ill health has been endured silently by women, due to various factors like gender inequalities, cultural restrictions, lack of women autonomy, poor awareness, lack of proper infrastructure, and focused counseling services (**Youins et al, 2001**).

A total health-building scheme is essential for the removal of the systemic toxicity, which is primarily responsible for the disease leucorrhoea. Such a scheme should consist of correct dietary habits, proper sleep, exercise, fresh air and sunshine. Heal leucorrhea pill a patent formula cleans vaginal infections and astringes discharge with dark color and odor (**Thomas, 2014**).

## SIGNIFICANCE OF THE STUDY

Several studies showed that women often suffer from reproductive morbidities for a long time because of their 'culture of silence' and they believe that it's not a condition for which they should seek medical help. Hence, it is the responsibility of the health care provider to create awareness regarding leucorrhoea, which helps in early identification of problem in the initial stage of management.

Some studies about women's awareness of leucorrhea in developing countries concluded that the psychosocial factors have a strongest association with vaginal discharge. One of these was studies conducted by (**Beryl & Bernice, 2005**) who mentioned that about (83%) women who participate in that study having vaginal

discharge but not seeking care due to psychosocial factors. Keeping the above facts in view investigator has decided to assess the knowledge, the attitude and the seeking care behavior's of the women's about leucorrhea in Damietta city.

***The Aims of the Study was:***

To assess the knowledge, attitude and seeking care behaviors of the women about leucorrhea.

## **SUBJECTS AND METHODS**

***I. Technical Design:***

Technical design of the study includes research design, setting, subjects, and tools of data collection.

**Research design:**

A descriptive design was used in the conduction of this study.

**Study setting:**

This study was carried out at the outpatient's gynecological units in Alazhar university hospital in Damietta city. Because of the highly rate of cases

**Subjects:**

A purposive ample of 500 women attending the selected hospital in Damietta City, who meet certain criteria

**Inclusion criteria:** Age between 15-45 years and all women married and unmarried.

**Sampling and sample size:**

A consecutive sample of women fulfilling the foregoing criteria was recruited from the study setting until the required sample size (500) was obtained. The sample size was determined by using the following equation (**Brown & Hollander, 1977**).

**Sample size:**

The calculated sample size is 450 women. Due to the expected non-participating rate (20%), the final sample size was 500 women.

**Tool of Data Collection:**

Tools was used to collect the necessary data to achieve the aim of the study, it were:

**1-Structured Interview questionnaire Sheet:**

A structured interview sheet was developed by the researcher after reviewing the literature and expertise' opinions. The sheet was designed in Arabic form to avoid misunderstanding. It was includes:

**Part I: Patients' socio demographic characteristics:** Items related to socio-demographic characteristics of the women include age, education, occupation, residence, marital status, size of the family and family income. It consists of six questions covering the previous items. **Part II: questions about women's menstrual history:** Items related menstrual history of women's include age of menses, duration between menses, and duration of bleeding. **Part III: questions about Leucorrhoea knowledge:** Items related to leucorrhoea knowledge of the women. It was developed by the researcher. It consists of eleven questions covering the following items: Leucorrhea definition, types,, causes, amount, and character of these symptoms, associated symptoms Women's care practical behavior toward these symptoms such as: Technique of cleaning the vagina, Direction of cleaning the vagina after the bath, Underpants clothes types and Using pad for vaginal discharge how long they responded, nature of response .

**Scoring system:**

For the knowledge items, a correct response was scored 1 and the incorrect zero. The scores of the items were summed-up and the total divided by the number of the items, giving a mean score for the part. These scores were converted into a percent score, and means and standard deviations were computed. Knowledge was considered unsatisfactory if the percent score was 60% or less, and considered satisfactory if knowledge 60% or more.

**Part IV: Questions about leucorrhoea seeking care behaviors:** Items related to Leucorrhoea seeking care behaviors of the women. It was developed by the researcher. It consists of fifteen questions covering the following items seeking or embarrassing to seek medical advice or performing traditional practices) Seeking medical advice, Time of seeking medical advices, Type of medication prescribed, Complete the course of medication and causes of not complete , Following up after the treatment in addition to the resource persons for their response.

### **Scoring system**

For the seeking behaviors items, a correct response was scored 1 and the incorrect zero. The scores of the items were summed-up and the total divided by the number of the items, giving a mean score for the part. These scores were converted into a percent score, and means and standard deviations were computed. Seeking behaviors' was considered unsatisfactory if the percent score was 60% or less, and considered satisfactory if seeking behaviors' 60% or more.

**2-Likart Scale Sheet :**Questions about women attitude about leucorrhea based on likert It was consists of eight questions covering the following items The under wear cloth should be expose to heat sun, When the under wear cloth wet should be change, the under wear cloth should be cotton 100%, The under wear cloth should not be nylon or mixed, Vaginal hygiene is important for women, Seeking medical advice is important when discharge change, Course of treatment should be complete even the symptoms disappear, and Follow up is important.

### **Scoring system**

For the attitude behavior items, a correct response was scored 1 and the incorrect zero. The scores of the items were summed-up and the total divided by the number of the items, giving a mean score for the part. These scores were converted into a percent score, and means and standard deviations were computed. Attitude was considered negative if the percent score was 40% or less, neutral attitude if between 40-70% and considered positive if attitude 70% or more.

**II. Operational Design:** The operational design was include preparatory phase, content validity, reliability, pilot study and fieldwork and limitation of the study.

**A-Preparatory phase:** It includes reviewing of literature, different studies and theoretical knowledge of various aspects of the problems using books, articles, internet, periodicals and magazines.

**B-Content validity:** It was ascertained by a jury consisted of five experts in the field of obstetric nursing to make sure that the study tools looks though it measured what supposed to measure.

**C-Reliability:** Cronbach alpha coefficient was calculated to assess the reliability of the developed tool through their internal consistency.

**Pilot Study:** A pilot study was carried out after the development of the study and before embarking on the actual study (data collection). It was conducted during April month 2015. In order to test applicability & feasibility of the tools of data collection, and to estimate the time required for filling the required forms. It was carried out on 15 women) of the study subjects, to evaluate the content of tools to determine whether or not the items were understood by women and they was excluded from the entire sample of research work. The results of pilot were as follows: Needed modifications were done each items in the same part, parts to each other and tools to each other were done. Finally, making assurance that each tool as a whole achieved the aim of the study.

**Field Work:** The data collection were started from April 2016 and extended to September 2016 three days weekly. This period consumed for data collection was governed by the availability time for both the researcher and the study respondents. Before conducting the study, women study were assured that the data collected for the questionnaire remained confidential and that no personal identification was needed by any means. They also were informed that they could refuse to participate in the study, to withdraw from it at any time.

### ***III. Administrative Design:***

For conduction of the study, a written permission was taken from the Dean of the Faculty of Nursing, Port Said University and an official letter were sent to the selected area of the study. The director of hospital was contacted and informed in order to obtain permission to include the patients on the present research.

**Ethical considerations:** Explain the aim of the study to the director of the hospital to take his permission to do this study, explain the aim of the study to each participant to ensure their consent to be involved in the study. A brief explanation of the study was given assured to the women that the information obtained was confidential and used only the purpose of the study and will maintain their privacy.

#### **IV. Statistical Design**

Data were coded and transferred into specially designed formats for data entry then data were analyzed and computed. The collected data were done using SPSS 20.0 statistical packages for social science. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, and means and standard deviations for quantitative variables. Qualitative variables were compared using person chi-square test and non-parametric chi-square test. Statistical significance was considered at p-value <0.05. .

### **RESULTS:-**

#### **Distribution of the Studied Women According to their Socio-Demographic Characteristics**

Present data shows that near half percentage of women (49%) in the study group was in the age group between 30-39 with a mean age of  $31.9 \pm 6.4$ , Meanwhile most of women were married and from rural origin (95.2 %, 56.4 %respectively). they were mostly housewives 62.2%. The same table denotes that educational level for less than half of them (44.2%) were secondary level. On the other hand (4 %) of the studied group were illiterate and(2.45%)of them were postgraduate. Regarding family financial demand about (36. 3%) of the sample were not satisfied with it. The mean crowding index was 1.72% with  $SD \pm 0.55$ .

**Figure (1) :** Respondent who have vaginal discharge during data collections

**Table (1):** demonstrates of the studied cases according total knowledge about leucorrhea, It denotes to (72.4%) of the studied women had unsatisfactory total of knowledge about vaginal discharge.

**Table (2):** Shows the attitude scaling for the studied women that (94.4 percent) of the studied women had positive attitude toward using cotton 100 percent under wear

exposure the under pants to sun and heat, change the under wear clothes when its wet good vaginal hygiene, seeking medical advice when discharge change, complete the course of medications, and follow up. Meanwhile, (0.8 %) of the studied women have negative attitude towed them

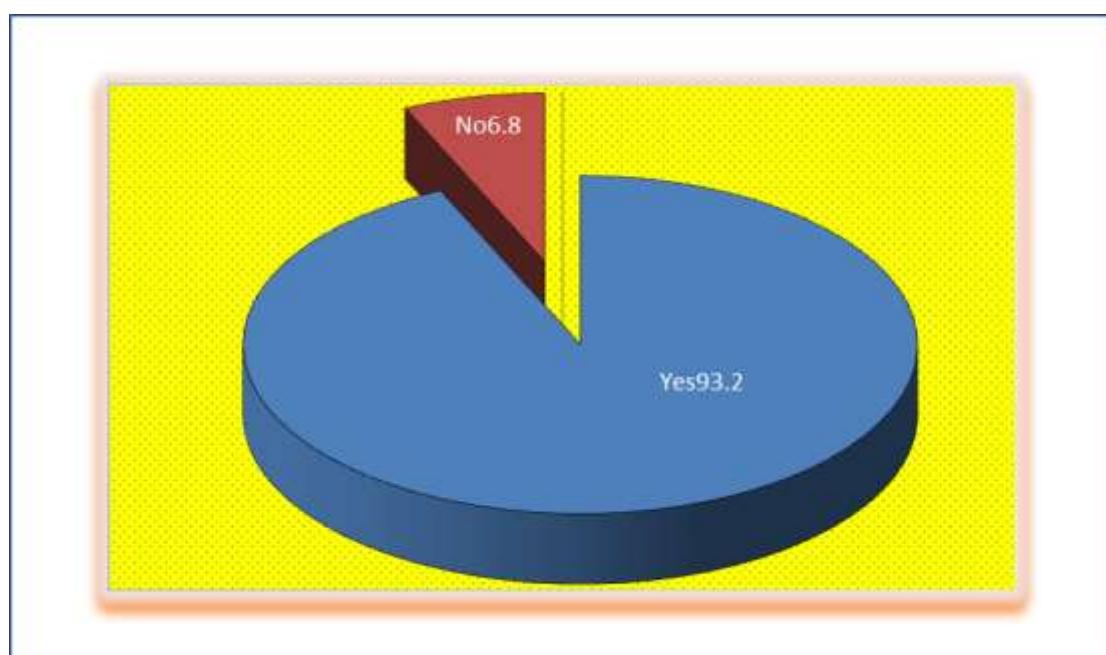
**Table (3):** Shows the level of satisfactory of the studied women according to their seeking care behavior for discharge. It shows vast majority (84.0%) of the studied women had satisfactory level of seeking care behaviors during vaginal discharge.

**Table (4):** displays the relation between total women knowledge about leucorrhea and socio-demographic data. It points to statistically significant relation in the study group in age, education level, occupation family size and monthly income. The relation observed is statistically significant ( $P+=0.001$  ).

**Table (5):** shows statistically significant in the attitude of women with increased educational level occupation residence and monthly income ( $p<0.001^*$ ). No statistically significant differences could be revealed in age and marital status.

**Table (6):** It is noticed from table 12that the relation between seeking care behaviors vaginal discharge of the studied women and demographic data with statistically significant difference ( $P=0.001^*$ ).They showed significant.

**Figure (1) Respondent who have vaginal discharge during data collections**



**Table (1):** Distribution of the studied cases according total knowledge about leucorrhea (n=500)

Total knowledge	No.	%
>60% un satisfactory	362	72,4
<60 % satisfactory	138	27.6

**Table (2):**Distribution of the studied cases according to attitude (n=500)

Attitude	No.	%
< 40% negative	4	0.8
40 – 70 % neutral attitude	23	4.6
70 – 100 % positive	473	94.4
Min. – Max.	25.0 – 100.0	
Mean ± SD.	$91.37 \pm 11.86$	

**Table (3):** Distribution of the studied cases according total women seeking care behavior during that discharge (n=500)

Women seeking care behavior for discharge	No.	%
>60unsatisfactory	80	16.0
<60 %satisfactory	420	84.0

**Table (4):** Relation between women total knowledge about leucorrhea and socio-demographic data

	Total knowledge				Test of sig.	P		
	Satisfactory (n = 362)		unsatisfactory (n = 138)					
	No.	%	No.	%				
<b>Age</b>								
19–29	153	42.3	38	27.5	□□□			
30–39	164	45.3	81	58.7	□□□□□	0.009*		
40–49	45	12.4	19	13.8	□			
Min. – Max.	20.0 – 55.0		20.0 – 58.0					
Mean ± SD.	31.58 ± 6.61		32.88 ± 6.0		t=2.107*	0.036*		
<b>Education level</b>								
Illiterate	18	5.0	2	1.4				
Read and write	37	10.2	5	3.6	□□□			
Basic	39	10.8	15	10.9	□□□□□			
Secondary	172	47.5	49	35.5	□□	<0.001*		
University	89	24.6	62	44.9				
Postgraduate	7	1.9	5	3.6				
<b>Marital Status</b>								
Married	343	94.8	133	96.4	□□□			
Non married (divorced or widow)	19	5.2	5	3.6	□□□□□	0.447		
<b>Occupation</b>								
House wife	239	66.0	72	52.2	□□□			
Work	123	34.0	66	47.8	□□□□□□	0.004*		
□								
<b>Residence</b>								
Rural	214	59.1	70	50.7	□□□			
Urban	148	40.9	68	49.3	□□□□□	0.090		
<b>Family size</b>								
2-5	300	82.9	120	87.0	□□□			
6 or more	62	17.1	18	13.0	□□□□□	0.266		
Min. – Max.	2.0 – 9.0		2.0 – 8.0					
Mean ± SD.	4.47 ± 1.29		4.19 ± 1.24		t=2.186*	0.029*		
<b>Number room house</b>								
Min. – Max.	2.0 – 5.0		2.0 – 5.0					
Mean ± SD.	2.64 ± 0.65		2.70 ± 0.69		t=0.826	0.409		
<b>Crowding of index</b>								
Min. – Max.	0.50 – 3.50		0.50 – 3.50					
Mean ± SD.	1.76 ± 0.55		1.63 ± 0.54		t=2.376*	0.018*		
<b>Monthly Income</b>								
Enough and saving	19	5.2	10	7.2	□□□			
Enough	173	47.8	115	83.3	□□□□□			
Not Enough(in debt)	170	47.0	13	9.4	□□	<0.001*		

$\chi^2$ , p:  $\chi^2$  and p values for Chi square test .FE: Fisher Exact for Chi square test,t, p: t and p values for

Student t-test \*: Statistically significant at  $p \leq 0.05$

**Table (5): Relation between attitude and demographic data**

	Attitude						Test of Sig.	p
	<40% Negative (n = 4)		40 – 70 % Neutral attitude (n = 23)		70 – 100 % Positive (n = 473)			
	No.	%	No.	%	No.	%		
<b>Age</b>								
<19 – 29	3	75.0	9	39.1	179	37.8	□□□ □□□□□	MC p= 0.175
30– 39	0	0.0	13	56.5	232	49.0		
40– 49	1	25.0	1	4.3	62	13.1		
Min. – Max.	22.0 – 40.0		25.0 – 45.0		20.0 – 58.0		F=0.686	0.504
Mean ± SD.	28.25 ± 8.10		31.65 ± 5.22		31.99 ± 6.51			
<b>Education level</b>								
Illiterate	3	75.0	5	21.7	12	2.5	□□□ □□□□□ □	MC p <0.001*
Basic	1	25.0	4	17.4	37	7.8		
Primary	0	0.0	3	13.0	51	10.8		
Secondary	0	0.0	10	43.5	211	44.6		
University	0	0.0	1	4.3	150	31.7		
Postgraduate	0	0.0	0	0.0	12	2.5		
<b>Marital Status</b>								
Married	4	100.0	23	100.0	449	94.9	□□□ □□□□□	MC p= 0.688
Non married	0	0.0	0	0.0	24	5.1		
<b>Occupation</b>								
House wife	4	100.0	19	82.6	288	60.9	□□□ □□□□□ □	MC p= 0.031*
Work	0	0.0	4	17.4	185	39.1		
<b>Residence</b>								
Rural	4	100.0	17	73.9	263	55.6	□□□ □□□□□ □	MC p= 0.043*
Urban	0	0.0	6	26.1	210	44.4		
<b>Family size</b>								
2-5	4	100.0	20	87.0	396	83.7	□□□ 0.264	MC p= 1.000
6 or more	0	0.0	3	13.0	77	16.3		
Min. – Max.	3.0 – 5.0		2.0 – 6.0		2.0 – 9.0		F=0.556	0.568
Mean ± SD.	3.75 ± 0.96		4.30 ± 1.18		4.40 ± 1.29			
<b>Number room house</b>								
Min. – Max.	2.0 – 4.0		2.0 – 5.0		2.0 – 5.0		F=1.004	0.367
Mean ± SD.	3.0 ± 0.82		2.78 ± 0.80		2.65 ± 0.65			
<b>Crowding of index</b>								
Min. – Max.	1.0 – 1.50		1.0 – 3.0		0.50 – 3.50		F=1.842	0.160
Mean ± SD.	1.27 ± 0.21		1.62 ± 0.53		1.73 ± 0.55			
<b>Monthly Income</b>								
Enough and saving	0	0.0	2	8.7	27	5.7	□□□ 28.206*	MC p <0.001*
Enough	1	25.0	2	8.7	258	60.3		
Not Enough(in debt)	3	75.0	19	82.6	161	34.0		

$\chi^2$ , p:  $\chi^2$  and p values for Chi square test ,F: F value for ANOVA test ,MC: Monte Carlo for Chi square test

**Table (6):** Relation between seeking care behavior for leucorrhea and socio-demographic data

	Seeking care				Test of sig.	p		
	Unsatisfactory (n = 80)		Satisfactory (n = 420)					
	No.	%	No.	%				
<b>Age</b>								
19–29	51	6.8	140	33.3	□□□	<0.001*		
30–39	18	22.5	227	54.0	□□□□□			
40–49	11	13.8	53	12.6	□□			
Min. – Max.	21.0 – 55.0		20.0 – 58.0					
Mean ± SD.	29.81 ± 7.06		32.35 ± 6.27		t=3.245*	0.001*		
<b>Education level</b>								
Illiterate	5	6.3	15	3.6				
Read and write	16	20.0	26	6.2	□□□			
Basic	14	17.5	40	9.5	□□□□□	<0.001*		
Secondary	33	41.3	188	44.8	□□□			
University	10	12.5	141	33.6	□			
Postgraduate	2	2.5	10	2.4				
<b>Marital Status</b>								
Married	79	98.8	397	94.5	□□□			
Non married (divorced ,widow and signal )	1	1.3	23	5.5	□□□□□	FE p= 0.151		
<b>Occupation</b>								
House wife	59	73.8	252	60.0	□□□			
Work	21	26.3	168	40.0	□□□□□□□	0.020*		
					□			
<b>Residence</b>								
Rural	57	71.3	227	54.0	□□□			
Urban	23	28.8	193	46.0	□□□□□□□	0.004*		
					□			
<b>Family size</b>								
2-5	66	82.5	354	84.3	□□□			
6 or more	14	17.5	66	15.7	□□□□□	0.690		
Min. – Max.	2.0 – 9.0		2.0 – 9.0					
Mean ± SD.	4.41 ± 1.39		4.39 ± 1.26		t=0.172	0.864		
<b>Number room house</b>								
Min. – Max.	2.0 – 5.0		2.0 – 5.0					
Mean ± SD.	2.73 ± 0.75		2.64 ± 0.65		t=1.017	0.310		
<b>Crowding of index</b>								
Min. – Max.	0.67 – 3.0		0.50 – 3.50					
Mean ± SD.	1.67 ± 0.51		1.73 ± 0.56		t=0.852	0.395		
<b>Monthly Income</b>								
Enough and saving	0	0.0	29	6.9	□□□			
Enough	25	31.3	263	62.6	□□□□□	<0.001*		
Not Enough(in debt)	55	68.8	128	30.5	□□			

$\chi^2$ , p:  $\chi^2$  and p values for Chi square test FE: Fisher Exact for Chi square test t, p: t and p values for Student t-test \*: Statistically significant at  $p \leq 0.05$

## **DISCUSSION:**

Leucorrhea is one of the most common and chief gynecologic complaint which can severely affects women's health, social wellbeing, and productivity worldwide. It accounts for more than 10 million office visits annually (National Center for Health Statistics, 2009). Despite, this there is a lack of robust data on women's knowledge, attitude and seeking care behavior towards common gynecological symptoms especially leucorrhea, as many women report limitation on daily activities such as missing praying, sexual life, and other social activities (Mahmud, 2014).

Based on the present study finding most women reported the problem of leucorrhea, (vaginal discharge). Among the total respondents interviewed around 93.2 percent reported having the problem of leucorrhea this finding is higher than which was reported in earlier studies in a Slum Dwelling South Asian Community. Among the total respondents interviewed around 32.7 percent reported having the problem of leucorrhea (Kaur, & Kapoor, 2014) in their study which addressed with perception and knowledge about leucorrhea.

A study done in Port-Said city among the total respondents interviewed around 75.4 percent reported having the problem of leucorrhea (Abdelati .& Ghida, 2015) about leucorrhea symptoms and seeking behavior. From the researcher point of view this difference because of the difference in education level in the studied women from the previous samples and, the difference in sample sitting as Damietta city consider developmental city.

Regarding first research question what are the women knowledge about leucorrhea?, Our study showed that most of the studied women did not know the accurate definition, types, causes, and the complete characteristics of the pathological types of the vaginal discharge. On the same line (Manjula & Rumana, 2006) in Nagpara showed that women's knowledge and perception about leucorrhea two third didn't know the meaning of leucorrhea. It could be due to lack of femininity awareness of accurate definition but knew it by common sense all over the world.

While the present study disagrees with (Kaur & Kapoor, 2014), in their study in Slum Dwelling South Asian community about perception and knowledge about leucorrhea, as they were claimed that the awareness level about leucorrhea was found to be almost universal (97 percent) of women being aware of it.

With reference to total knowledge level of the studied women our study revealed that near three quarter of the studied women had unsatisfactory level of knowledge which disagree with (Choudhar, 2016) in Urban community of Ludhiana city. About knowledge regarding leucorrhoea among women who revealed that only 20 percent of subjects had good level of knowledge, and most of subject had poor level of knowledge regarding leucorrhoea. The mean knowledge score regarding leucorrhoea among subjects was 19 with standard deviation of 3.94. Highest mean knowledge score of  $19.5+4.69$  was in the age group of  $>35$  years.

In addition, Choudhar (2016) revealed that subjects with educational qualification of graduation had more mean knowledge score of 22.00 as compared to those studied up to senior secondary educational level the working people had more mean knowledge score of  $19.6+4.44$  than subjects who were housewives. It could be due to the similarity of both studied women origin as near half of our sample were from urban community.

The present study revealed that the attitude of the studied women regarding leucorrhea was positive as most of the studied women agree with the fact which say the under wear cloth should be exposed to sun and heat, made from cotton. Also, most of them agree with the importance of vaginal hygiene. More than two third of the studied women consider seeking advice is important when the discharge change from normal characteristics to pathological characteristics, in addition they were agreed with completion of the treatment course even the symptoms disappear and follow up.

Also, our finding showed that most of the studied women had positive attitude toward total vaginal hygienic practices such as using cotton under wear ,exposure the under pants to sun and heat, change the under wear clothes when its wet , good vaginal hygiene ,seeking medical advice when discharge change, complete the course of medications ,and follow up meanwhile a few of the studied women have negative attitude toward them.

Our study agreed with Varghese, et al. (2017) whose study about knowledge, attitude and practice of women towards vaginal discharge in Christian Medical College and Hospital, Ludhiana, Punjab, India, They denoted to 60-80% of respondents showed positive attitude towards observance of good genital hygiene. Concerning the effect of treatment, this study agreed with Varghese. They asserted that three fourths of participants when asked about the efficacy of medical treatment for VD (vaginal discharge) stated that the disease is treatable but wanted their husbands to be simultaneously treated to prevent recurrence. It could be due to the similarity in mean education level between both samples.

Additionally, Hashemian, et al. (2015) in Tehran University of Medical Sciences in their study about the effect of education on knowledge, attitude and practice of patients with vaginitis disagree with us. Regarding the attitude of women, there was no significant difference between the intervention and control groups before the intervention, but after training the attitude in the intervention group had an increase toward the disease management. It could be due to their sample received an educational and training program.

Concerning level of satisfaction of seeking care behaviors during vaginal discharge our study disagree with (Balamurugan & Bendigeri, 2012) about community based study of reproductive tract infections among women of the reproductive age group in the urban health training center area in Hubli, Karnataka, Indian who declared that majority of women with symptoms related to reproductive tract infections were positive for reproductive infections but were not taking medical treatments. Also, our study disagree with (Prusty, et al., 2013) their study about knowledge and health seeking behaviors among women of reproductive age group they claimed that the treatment seeking was also poor among the reproductive age group. It could be due to the difference in subject and time of data collection.

Concerning seeking care behaviors during vaginal discharge. The present study disagree with (Bery & Bernice, 2005) in their study about why do women complain of vaginal discharge a population survey of infectious and psychosocial risk factories in South Asian community, They referred that most of women who participate in that study having vaginal discharge but did not seek care due to psychosocial factors.

Our study agreed with (Mamta, & Kaur, 2014) their data about reproductive tract infections. The prevalence and health seeking behaviors among women of reproductive age group in India. They were claimed that majority had satisfactory health seeking behaviors. In addition (Nielsen, et al., 2014).Who was in partial agreements with our study. He in Viet Namin vaginal discharge about women healthy seeking behaviors and culture practices, they were proved that one third of the studied women sought healthcare, one third self-medicated and near half of women ignored their symptoms in the sense that they took no action.

Our study was in partial agreement with (Abdelati, & Ghida, 2015) in Port Said city. In their study about leucorrhea symptoms and seeking behavior, they mentioned that more than one-half of women received medical advice for leucorrhea, and women seeking treatment were more likely to be in the older age group (35-45 years), below the secondary/technical level of education. It could be due to older women had more experience.

Our study result higher than (Abdelati, & Ghida, 2015) concerning time of seeking medical advice and type of medication prescribed. As according to Abdelati, & Ghida, 2015 almost two-thirds of women sought medical advice immediately upon the onset of the symptom while, one third sought it long time after its occurrence. Regarding types of medication prescribed that applying as vaginal ointment or suppository such as amirzol was used by almost half of the sample and reported that they sat in warm water with disinfectant. However, more than one third used vaginal douches, or washes the perineal area with soap and water.

Most of the women perceive vaginal discharge to be a normal phenomenon in their life while a few consider it to be a non-curable illness. The normality of the disease is often influenced by cultural, social, and other group specific factors. Among adult women it may be physiological or pathological. The physiological may be due to sexual arousal, pre-menstrual, or during pregnancy, while pathological may be further categorized as infectious (occurring due to one or multiple infections) or non-infectious (detergents, foreign bodies, herbal preparations, or due to some cancers) (Kaur & Kapoor 2014)

These finding are supported by (Owen, & Katz, 2009) in their study about vaginal fluid simultaneity, contraception, age, education, occupational status, marital status,

was seen to influence significantly in the perceptions and women seeking treatment for leucorrhea. As women seeking treatment were significantly relation more likely to be in the older age group and married in as well as had enough monthly income. Also our study was in accordance with (Singh & Rumna, 2006) in their study about management of vaginal discharge in non genito urinary medicine settings faculty of sexual &reproductive study in Nag-para and revealed that there are a number of socio-cultural and economic factors that shape significantly women's decision to seek treatment with regard to excessive vaginal discharge, It could be due to the similarity in educational level between two samples in age, education, level occupation, residence, and monthly income ( $p<0.001$ ).

## **CONCLUSION:**

***Based on the findings of the present study, it could be concluded that:***

The present study brings out a high prevalence of leucorrhea 93.2 % among the studied women, various perceptions about leucorrhea among women, in Damietta area. Age, education, Marital status and occupational status, were seen to influence and shape the perceptions and care seeking behavior about the problem of leucorrhea. In addition, studied women had satisfactory level of seeking care behaviors toward vaginal discharge relies on their total knowledge and positive attitude.

## **RECOMMENDATIONS:**

***Based upon the findings of the current study, the following are recommended:***

- The clearly embark the need to set new methodologies and intervention, both, at service provider as well as the beneficiary end, to bring down the prevalence rates for leucorrhea.
- Further research publications of the study on large sample that include both knowledge about leucorrhea and treatment seeking behavior.

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