

# A STUDY TO ASSESS THE EFFECTIVENESS OF ALOE VERA JUICE ON LEUCORRHOEA AMONG DGNM NURSING STUDENT'S AT VMCON, PUDUCHERRY.

**Main Author: Mrs. Sasikala. M.Sc (N)** , Assistant Professor , Dept. of Medical Surgical Nursing, Vinayaka Missions College of Nursing, Puducherry.

**Co author ; Mrs. Nirmala.S., Miss. Prasanthi.N, Mrs. Priyadharshiny.N, Miss. Radhika.N, Miss. Ragavi.R**

## ABSTRACT

Pre experimental research design was used to assess the effectiveness of aloe vera juice on leucorrhoea among DGNM Nursing Students VMCON Puducherry. The objectives were to identify the student with leucorrhoea and to determine the effectiveness of aloe vera juice. A total number of 30 students were selected by using convenient sampling technique. The pre test was conducted by using questionnaire method to identify the leucorrhoea among DGNM Nursing students. The data were analyzed through paired and chi-square test. The result that majority of the subjects received aloe vera juice were felt no leucorrhoea. Pre test and post test scores were compared by using paired t test. The mean and SD of pre test is  $5.4 \pm 0.723$ . The mean and SD on post test is  $1.167 \pm 0.912$ . The mean difference is 4.233. The comparison is done by paired 't' test with the P value  $< 0.001$  which shows that there is a significant reduction in scores on post test when compared to the pre test. The study concluded that there was significant improvement and the aloe vera juice was effective on decreasing leucorrhoea.

**Key Words-** Aloe vera juice, Leucorrhoea, Effectiveness.

## INTRODUCTION

A women are probably dying as she has been denied access to medical treatment in time. Women's health is compromised practically at every step in time. From womb to tomb, women are made to pay dearly for their women hood. unless some steps are taken to make people appreciate human rights issues related to women's sexual and reproductive health, women will continue to die. There are several medical disorders from which women suffer and leucorrhoea is one among them. Leucorrhoea is abnormal condition of the reproductive organs of women. If not treated properly in the initial stages, it may become chronic. It may also result from the inflammation or congestion of the vaginal mucosa. In cases where it is yellowish or gives offensive odour, a doctor should be consulted since it could be a sign of an STD-Sexually Transmitted Disease.

## NEED FOR THE STUDY:

Reproductive tract infections are common discomfort for the women including adolescent. In India, World health organization (2015) reported that 448 million new cases of curable reproductive tract infection occur annually between age group of 15-49 years.

In 2015, 25% of reproductive tract infection were identified from 17,578 cases of VDRL at Puducherry. Which was given by health and family welfare, Puducherry. (Department of Health and family Welfare)

**Binita Joseph** (2012) conducted a cross sectional study at Gujarat to incidence of vaginal candidiasis in leucorrhoea with women and with objectives with sample of 300 patients by using chi square test method. Result reveals in 19% of the women the leucorrhoea was due to candida infection with highest incidence in women of age (21-30 years). Incidence of candidiasis was higher in pregnant (22.5%) compared to non-pregnant (16.6%). Candida albicans was the most common strain identified and candida krusei was the least common one. The study concluded highest incidence found between 21-30 years age group, in pregnant women, in women from lower socio-economic class. Among candida species c.albicans was common as followed by c.glabrata, c.tropicalis, c.krusei.

These factors have given importance for the investigator to select and conduct the study related to leucorrhoea. The present study was developed to assess the effectiveness of aloe vera juice on leucorrhoea among DGNM student.

## STATEMENT OF THE PROBLEM:-

A study to assess the effectiveness of aloe vera juice on leucorrhoea among DGNM students at VMCON, Puducherry.

## OBJECTIVES:-

- To identify the students with leucorrhoea.
- To determine the effectiveness of aloe vera juice on leucorrhoea

- To associate persons having leucorrhoea with selected demographic variables.

#### **OPERATIONAL DEFINITION:-**

#### **EFFECTIVENESS:**

It refers to significant reduction in symptoms during white discharge as determined by significant difference in pre test and post test score.

#### **LEUCORRHOEA:**

Leucorrhoea it is a thin to thick, whitish or yellowish vaginal discharge.

#### **ALOE VERA JUICE:**

This aloe vera juice extract from the aloe vera leaves.

#### **DGNM NURSING STUDENT:**

Nursing students who are studying of DGNM Nursing course.

#### **HYPOTHESIS:**

There will be significant effect of aloe vera juice on leucorrhoea.

#### **DELIMITATION:**

The study is delimited to DGNM Students who are affected with leucorrhoea.

### **REVIEW OF LITERATURE**

**Pallavika Borah, Tamil selvi**(2015) conducted a pre experimental study at Chennai to assess the effectiveness of aloe vera juice on leucorrhoea among women with the objectives of knowledge regarding leucorrhoea and to determine the effectiveness of aloe vera juice on leucorrhoea with the samples size of 30 by using non probability, convenient sampling method. Result reveals with the regards to age among women, majority of 16(53%) are between the age group 25-30 years. With the regards to the education among women, majority of 10(33%) are secondary educated. Majority of 15 (50%) of the women are housewife. of 21 (70%) of the women are hindus. The women attained puberty at the age of 10-20 years are 10 (33%). Majority of 18 (60%) of the women are married. The study concludes that the aloe vera juice is used for reducing the leucorrhoea which can reduce the need of pharmacological interventions. The preparation of aloe vera juice is easy way to reduce the flow of white discharge and thus the aloe vera juice can find great relief without drugs at home for the adult women.

- BUNYAPRAPHATSARA** (2010) conducted a observational study at Vellore and with the objective to assess the oral aloe vera for treatment of diabetes mellitus with the sample size of 72 by using convenient method. Result reveals these patients were being treated with glyburide 5mg orally twice daily. Mean  $\pm$  S.D. fasting blood glucose concentrations in the intervention group decreased from 288.1 $\pm$  8.5 mg / dl at baseline to 148.0 $\pm$  4.6 mg / dl by day 42. Mean  $\pm$  S.D. blood glucose concentrations in the control group remained unchanged, measuring 289.2  $\pm$  7.1 mg / dl at baseline and 289.7  $\pm$  8.1 mg / dl at the end of the study. Triglyceride concentrations at baseline were 264.7  $\pm$  15.2 mg / dl in the intervention group and 223.3  $\pm$  12.2 mg / dl in the control group (p = 0.037). On day 42, mean  $\pm$  S.D. triglyceride concentrations were 128.3  $\pm$  5.5 and 233.1 $\pm$  13.7 mg / dl for the intervention and control groups, respectively (p < 0.01). Non differences in blood cholesterol concentrations were observed (p > 0.01). Although the baseline values for triglycerides were different between the groups. The degree and direction of benefit suggest that the change was clinically significant.

### **METHODOLOGY**

#### **RESEARCH DESIGN:**

Pre experimental research design one group pre test and post test.

#### **SETTING OF THE STUDY:**

Setting is the physical location and condition in which data collection take place, was vinayaka mission's college of nursing, Kirumampakkam, Puducherry. It's situated 16 km away from Puducherry town.

#### **POPULATION:**

The population of the present study comprised of 30 Nursing Students studying in DGNM course, VMCON Kirumampakkam Puducherry.

#### **SAMPLE SIZE:**

The sample is the subset of population and sample size was 30 DGNM Nursing students.

#### **SAMPLING TECHNIQUE:**

The convenient sampling technique was carried out to select the study subject.

#### **CRITERIA FOR SAMPLE SELECTION**

#### **INCLUSION CRITERIA:**

DGNM (I, II, III & Internship)Nursing students who are affected with leucorrhoea.  
 DGNM Nursing students who have itching, irritation, white discharge.  
 DGNM Nursing students who are present during the period.  
 DGNM Nursing students who are willing for the study.

**EXCLUSION CRITERIA:**

- Those who are not have signs & symptoms of leucorrhoea.
- Those who are not willing and un co-operative.

**DEVELOPMENT OF TOOL:**

It consists of 3 section

Section-1. Demographic variable consist of age, age at menarche, religion, marital status, residential area, type of family, dietary pattern, source of knowledge, treatment of leucorrhoea usage of home remedies.

Section- 2. Health profile consist of menstrual cycle, duration of leucorrhoea, family history of leucorrhoea, symptoms of leucorrhoea, present of leucorrhoea, type of leucorrhoea.

Section -3. Leucorrhoea assessment questionnaire consists of questions related to leucorrhoea before and after menstruation, itching, fowl smelling, lower back pain, abdominal pain, constipation, fatigue or weakness, colour of leucorrhoea, leucorrhoea through out of the day, use sanitary napkin for leucorrhoea.

**ALOE VERA JUICE PREPARATION:**

1kg of fresh aloe vera plant was grind it in a mixer after washing and peeling of skin from the plant. Then 2 liter of water, 400grams of sugar and pinch of salt added and preserved. In the refrigerator.

**DATA COLLECTION METHOD:**

Subjects selected from I, II, III & internship DGNM Nursing students who had leucorrhoea during the data collection period. Pre test was made by using leucorrhoea assessment questionnaire. Aloe vera juice 100 ml was given for 15 days to subjects with empty stomach and post test leucorrhoea assessment was done after 15 days. by using leucorrhoea assessment questionnaire.

**DATA ANALYSIS:**

Descriptive and inferential statistics was used such as frequency percentage, mean, standard deviation, chi square test, paired 't' test.

**DATA ANALYSIS AND INTERPRETATION****Table 1 Distribution of Frequency Percentage of Leucorrhoea Before and After Aloe Vera Juice**

Sl. No	Leucorrhoea Assessment	Pre Test		Post Test	
		F	%	F	%
1	<b>Do you have Leucorrhoea before and after menstruation?</b>	30	100%	20	66.7%
	Yes				
	No				
2	<b>Do you have itching?</b>	19	63.3%	5	16.7%
	Yes				
	No				
3	<b>Do you have fowl smelling?</b>	3	10%	0	0%
	Yes				
	No				
4	<b>Do you have lower back pain?</b>	30	100%	0	0%
	Yes				
	No				
5	<b>Do you have abdominal pain?</b>	24	80%	0	0%
	Yes				
	No				
6	<b>Do you have constipation?</b>	5	16.7%	1	3.3%
	Yes				
	No				

7	<b>Do you have fatigue or weakness</b>	25	83.3%	7	23.3%
	Yes				
	No	5	16.7%	23	76.7%
8	<b>Yellow color of Leucorrhoea</b>	10	33.3%	1	3.3%
	Yes				
	No	20	66.7%	29	96.7%
9	<b>Do you have Leucorrhoea throughout the day?</b>	13	43.3%	1	3.3%
	Yes				
	No	17	56.7%	29	96.7%
10	<b>Do you use sanitary napkin for Leucorrhoea?</b>	3	10%	0	0%
	Yes				
	No	27	90%	30	100%

The above table shows the Comparison of Score of students with Leucorrhoea on Pre Test and Post Test. It shows that 63.3% of students had itching on pre test. It was reduced to 16.7% on post test.

Similarly 10% of students had fowl smelling on pre test and none of the students had fowl smelling on post test. Also all of the students (100%) had lower back pain on pre test and none of the students (0%) had lower back pain on post test.

The table also shows that 80% of the students had abdominal pain on pre test and none of the students (0%) had abdominal pain on post test. Similarly 16.7% of students had constipation on pre test and only 3.3% of students had constipation on post test. It also shows that 83.3% of students had fatigue or weakness on pre test and the percentage is reduced to 23.3% on post test. Similarly 33.3% of students had yellow color of Leucorrhoea on pre test and only 3.3% of students had yellow color of Leucorrhoea on post test. Also 43.3% of students had leucorrhoea throughout the day on pre test and only 3.3% of students had Leucorrhoea throughout the day on post test. And 10% of students use sanitary napkin for Leucorrhoea on pre test and none of the students (0%) use sanitary napkin for leucorrhoea on post test.

**Table 2 Comparison of Pre Test and Post Test Score with Mean and Standard Deviation**

Tests	Mean	Standard Deviation	Mean Difference	't' Value	'p' Value
Pre Test	5.4	0.723	4.233	21.616	<0.001 (S)
Post Test	1.167	0.912			

**S – Significant, NS – Not Significant**

The above table shows the Comparison of Score of students with Leucorrhoea on Pre Test and Post Test (before and after aloe vera juice). It shows that the mean and SD of pre test is  $5.4 \pm 0.723$ . The mean and SD on post test is  $1.167 \pm 0.912$ . The mean difference is 4.233. The comparison is done by Paired 't' test. The p value <0.001 shows that there is a significant reduction in Scores on post test when compared to the pre test

## RESULTS AND DISCUSSION

### The first objectives to identify the students with leucorrhoea

The students identified according to their health profile. Most of the students 86.7% have regular menstrual cycle. Also majority of students had 3days duration of leucorrhoea (43.3%). Similarly 90% of students didn't have family history of leucorrhoea. 36% had common symptoms such as itching, irritation and Pain over the back and thigh was 36.7%. Half of the students (50%) got leucorrhoea before and after ovulation. Majority of students had acute type of leucorrhoea (86.7%).

### The second objectives to determine the effectiveness of aloe vera juice on leucorrhoea.

Leucorrhoea assessment was done before (pre test ) and after ( post test ) taking aloe vera juice. The scores were analyzed and the mean and standard deviation of pre test is  $5.4 \pm 0.723$ . The mean and standard deviation on post test is  $1.167 \pm 0.912$ . The mean difference is 4.233. The comparison is done by paired 't' test. The p value  $< 0.001$  shows that there is a significant reduction in scores on post test when compared to the pre test, Which shows aloe vera juice is effective against leucorrhoea.

**The third objectives to associate persons having leucorrhoea with selected demographic variables.**

The association between the demographic variables and score of students with leucorrhoea on pre test. It shows that none of the variables had relation with the scores since the p value is greater than 0.05, except treatment received for leucorrhoea.

**HYPOTHESIS:**

- ❖ There was significant effect of aloe vera juice on leucorrhoea.
- ❖ Hypothesis suggests that there was significant improvement of leucorrhoea after taking aloe vera juice.

**CONCLUSION:**

- ❖ Majority of the participants were in the age group of less than 17 to 20 years and average age at menarche is 12 to 15 years
- ❖ Aloe vera juice among leucorrhoea was very effective method in terms of reducing the foul smelling, itching and pain level during white discharge [leucorrhoea].

**RECOMMENDATIONS**

1. The study can be repeated on large sample.
2. Comparative study can be conducted to find out the similarities ( or) differences in effectiveness of aloe vera juice on leucorrhoea among DGNM (Nursing) students.
3. The study can be conducted in different setting such as urban and rural area.

**BOOK REFERENCES**

- Shirish MD Aftary (2015) Obstetrics and Gynaecology 1<sup>st</sup> edition New Delhi B.I Publication PVT LTD PP:82-90.
- D.C Dutta (2013) Text book of Gynaecology 4<sup>th</sup> edition Calcutta New Central book agency(p) LTD PP:503-505.
- Ammularadha (2007) Hand book of Gynaecology and Nursing 1<sup>st</sup> edition Hyderabad Fortline Publications P:102.

**JOURNALS REFERENCE**

- Varsha , Rajeev Kumar et al (2012) Prevalence and determinants of vaginal discharge among women. National Journal of community medicine Volume – 3 Issue – 4 Northern India PP : 661- 662.
- Swetha ,Kannan et al (2017) Sexually transmitted diseases and AIDS. Indian Journal of sexually transmitted diseases and AIDS Volume – 38 Issue – 1 Salem official Publication of the Indian Association PP : 69-75.
- Tabassam (2014) Analysis of leucorrhoea manifestations observational case study. International Journal of herbal medicine volume – 2 Issue- (2) Bangalore PP : 23-26.

**INTERNET REFERENCE**

- [http : // www. florajournal. Com /accepted 8/5/14.](http://www.florajournal.com/accepted/8/5/14)
- [http : // www. SS Journal. Com/ index. php/ijbar/article/view/243/10/7/17.](http://www.ssjournal.com/index.php/ijbar/article/view/243/10/7/17)
- [http : // www. tandfonline. Com /doi/abs/101517/14728222/10/1/10.](http://www.tandfonline.com/doi/abs/10.1517/14728222/10/1/10)