

# Effectiveness of A structured teaching program on Leucorrhoea and it's management for women of Reproductive age group at selected college in Honavar

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## Abstract

*Leucorrhea, also known as leucorrhoea, is a white, yellow, or green discharge from a woman's vagina, which may be normal or a sign of an infection. Leucorrhoea is common during pregnancy and is typically normal if the discharge is thin, white, and odorless. Physiological leucorrhoea is a condition that occurs in young women several months to a year after the onset of menstruation. It sometimes occurs in newborn girls and usually lasts for 2 to 3 months. In many instances, leukorrhoea can indicate an infection, particularly if the discharge is yellow or green, has an unpleasant smell, and is accompanied by itching, burning sensations, or swelling of the tissue. This study evaluated the effectiveness of education regarding leukorrhoea and its treatment in children of childbearing age. An experimental design consisting of pre-test, pre-test, and post-test was adopted with a sample size of 30 using a non-random purposive sampling technique. Data was collected and evaluated through surveys that included 24 multiple-choice questions. T-tests were conducted to compare the mean scores before and after the test, and this relationship was further illustrated using the chi-square test. In the pre-test, the average knowledge score of the subjects was 10.56, the average percentage was 35.2% and the standard deviation was 2.76; In the post-test, the average knowledge score was 15.1, with a percentage of 50.3%, a standard deviation of 3.09% and a standard deviation of 15.1%. The t-test value is -4.05 ( $p < 0.05$ ), which is smaller than the 0.05 value in the table and is highly significant. Therefore, the plan to use a white belt is valid and the findings (H1) are important. The chi-square test ( $\chi^2$ ) showed that the relationship between children's age test scores and variables such as education, family type, genital area knowledge, and content was analyzed at the 0.05 significance level. This study concluded that leukorrhoea treatment plans and management education can increase women's knowledge. Similar studies can be repeated in different locations with longer samples to generalize and conduct comparative studies between cities and rural areas. Educational training should provide both current and supplementary information to update knowledge about vaginal urination and its management. This training can be delivered within the community using various audiovisual aids..*

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## INTRODUCTION

*“Coming together is a beginning; keeping together is progress; working together is success.”*

—Edward Everett Hale

Leucorrhoea is frequently encountered in obstetric and medical settings. This term refers to cases of abnormal vaginal discharge that are not hemorrhagic and are not linked to tumors or other

serious organic diseases. Effective treatment of leucorrhea can be challenging due to unclear causes. The origin of leucorrhea is complex and is not fully understood. Factors such as changes in the vaginal lining, alterations in the normal bacterial flora, and shifts in the pH of vaginal secretions may contribute to its development. Additionally, conditions such as chronic illness, fatigue, malnutrition, emotional stress, chronic extroverted uterus, congestive heart failure, gonococcal and yeast infections, vulvovaginitis, and lesions on the vaginal wall or cervix have all been associated with leukorrhea [1]. Leucorrhea and pelvic inflammatory disease (PID) are common gynecological issues frequently encountered by gynecologists and can often be challenging to treat. Leucorrhea is characterized by an abnormal increase in vaginal discharge and is typically associated with irritation and itching. It may be physiological, occurring during different phases of the menstrual cycle, or may result from cervical or vaginal inflammation, or other diseases. Possible causes include infections such as *Trichomonas vaginitis*, *Candida albicans*, or mixed bacterial infections, as well as chronic cervicitis, cervical dysplasia, malignancy, or senile vaginitis. PID refers to infections of the upper genital tract including endometritis, salpingitis, and peritonitis. Although the progression of PID is not fully understood, ascending infections are often linked to sexually transmitted pathogens [2]. Lateral spread may occur due to infected organs, such as the appendix, or diverticulitis, and it can sometimes occur through hematogenous spread. If the condition does not resolve on its own, it may progress to the polymicrobial stage [3]. Gynecological procedures such as the insertion of intrauterine contraceptive devices, dilatation and curettage, and obstetric deliveries can contribute to these issues. Patients typically present with abnormal vaginal discharge, fever, vomiting, pelvic pain, and elevated erythrocyte sedimentation rate. Many patients experience lower abdominal pain and general fatigue owing to the loss of vital fluids from discharge. Additional symptoms may include irritability and difficulty concentrating at work due to awareness of the discharge, as well as lower back pain and discomfort in the legs, particularly in the thighs and calves. Patients may also report soreness and burning sensations in the genital area, painful urination, and frequent urge to urinate, with only small amounts produced [4].

Leucorrhea is a condition that typically does not suddenly develop. Instead, it indicates a general toxic state in the female genital system. It can affect one or more organs of the reproductive system. When there is an abnormal buildup of toxins in the body due to poor dietary choices, organs such as the kidneys, intestines, and skin may struggle to eliminate these toxins effectively. Consequently, the body attempts to expel them through foul-smelling and thick vaginal discharges. In cases of chronic leucorrhea, the discharge may appear white, yellow, or even greenish and may contain pus [5, 6].

Leucorrhea is a significant issue encountered in gynecological practice. The most frequent cause of leucorrhea is physiological, followed by vaginal infections with bacteria, viruses, fungi, and parasites. Other contributing factors include the presence of foreign bodies, cervicitis, and atrophic vaginitis. This study aimed to evaluate the prevalence of leucorrhea among women of reproductive age and explore the relationship between demographic variables and the prevalence of leucorrhea. A non-experimental descriptive design was employed for this assessment utilizing purposive sampling. Sixty women of reproductive age participated in this study. A checklist was used to evaluate the prevalence of leukorrhea. The collected data were organized and analyzed using descriptive statistics. The findings indicated that out of the 60 participants, 28 (46.66%) experienced mild leucorrhea, 32 (53.33%) had moderate leucorrhea, and none were classified as severe. A statistically significant association was found with variables such as age, number of children, income, and education, at a significant level of  $P < 0.05$ . Thus, this study concluded that leucorrhea is most common among women of reproductive age, highlighting the importance of nurses in assessing early symptoms to prevent gynecological diseases [7–10].

## METHODOLOGY

This study employed an evaluative approach using a pre-experimental, one-group, pre-test, and post-test design. Thirty participants were selected using a nonrandomized purposive sampling method. Data were collected using a structured questionnaire comprising 24 multiple-choice questions. The data were

analyzed using a t-test to compare the differences in the mean scores between the pre-test and post-test results. The association was confirmed using the chi-square test.

## RESULTS

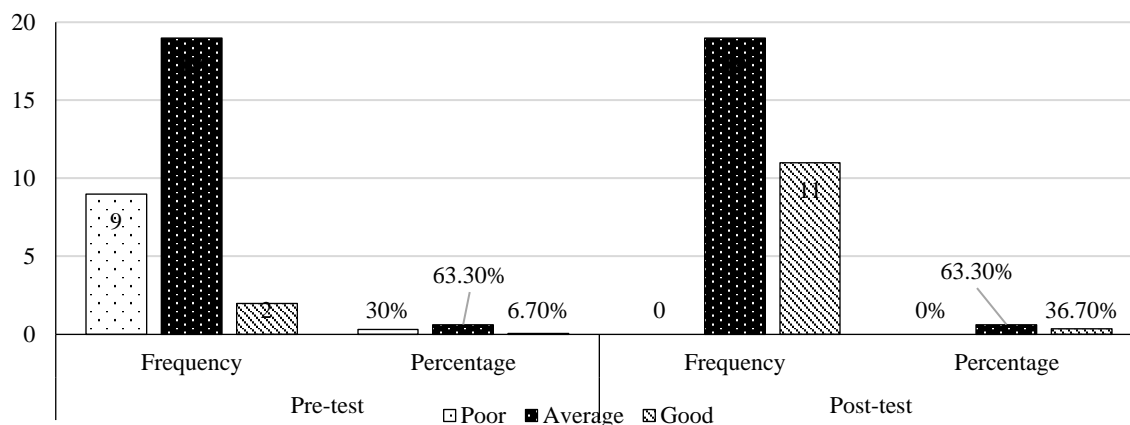
Table 1 shows the demographic information subjects who participated in the present study.

**Table 1.** Frequency and percentage distribution of leucorrhoea and its management among reproductive age group (n=30).

S.N.	Demographic variables	Frequency	Percentage
1	<b>Age in years</b>		
	17–20	17	56.7%
	21–25	13	43.3%
	26–30	0	0%
	31–35	0	0%
2	<b>Marital status</b>		
	Single	30	100%
	Married	0	0%
	Widow	0	0%
	Divorced	0	0%
3	<b>Religion</b>		
	Christian	19	63.4%
	Hindu	10	33.3%
	Muslim	1	3.3%
	Others	0	0%
4	<b>Education</b>		
	1st year	10	33.4%
	2nd year	9	30%
	3rd year	2	6.6%
	4th year	9	30%
5	<b>Type of family</b>		
	Nuclear	28	93.4%
	Joint	2	6.6%
6	<b>Area of residence</b>		
	Urban	7	23.3%
	Semi-urban	9	30%
	Rural	14	46.7%
7.	<b>Previous knowledge</b>		
	Yes	11	36.7%
	No	19	63.3%
8	<b>Source of information</b>		
	Teacher	6	66.6%
	Friends	2	11.8%
	Family	2	11.8%
	Media	1	9.8%
9	<b>Experience of excessive vaginal discharge</b>		
	Yes	30	100%
	No	00	00%

**Table 2.** Finding the overall knowledge level among reproductive age group students regarding the knowledge of leucorrhea and its management.

Knowledge level	Pre-test		Post-test	
	Frequency	Percentage	Frequency	Percentage
Poor	9	30%	0	00%
Average	19	63.3%	19	63.3%
Good	2	6.7%	11	36.7%



**Figure 1.** Overall knowledge level.

Table 2 and Figure 1 show the frequency and percentage distribution of the overall knowledge level among students in the reproductive age group regarding their knowledge of leucorrhea and its management.

**Findings of the Association Between the Knowledge Level and Selected Demographic Variables**

Table 3 shows the chi-square test value of association between the pre-test knowledge level of reproductive age group students regarding leucorrhea and its management to their demographic variables like education, previous knowledge, and type of vaginal discharge at 0.05 level of significance.

**Table 3.** Chi-Square test showing the association between the knowledge level and selected demographic variables.

S.N.	Demographic variable	Pre-test knowledge score		Chi-Square	P	Df	Inference
		Poor	Average				
1.	<b>Education</b>						
	1 and 2nd	6	4	4.46	3.84	1	P 0.05 S*
	3 and 4th	3	17				
2.	<b>Type of family</b>						
	Nuclear	8	20	0.03	3.84	1	P 0.05 NS
	Joint	1	1				
3.	<b>Area of residence</b>						
	Urban and semi-urban	3	13	3.37	3.84	1	P 0.05 NS
	Rural	6	8				
4.	<b>Previous knowledge</b>						
	Yes	0	11	9.87	3.84	1	P 0.05 S*
	No	9	10				
5.	<b>Vaginal discharge</b>						
	White curdy odorless	8	5	4.37	3.84	1	P 0.05 S*
	Others	3	14				

NS = non-significant, S\* = Significant

## CONCLUSION

The planned teaching program was effective in educating the reproductive age group about leucorrhoea and its management so that they could be aware of abnormal vaginal discharge. This study was undertaken to evaluate the effectiveness of a planned teaching program for leucorrhoea and its management among children of reproductive age at the St. Ignatius Institute of Health Sciences, Honavar, Uttara Kannada. This study was conducted using a sample of 30 women in their reproductive years. Among the pre-test, only two had good knowledge, 19 had average knowledge, and 9 had poor knowledge; in the post-test, 11 had good knowledge, 19 had average knowledge, and 0 had poor knowledge. This shows that the maximum number of participants had good knowledge of the study after the post-test. Thus, the teaching program was highly effective in improving the knowledge of the reproductive age regarding leucorrhoea and its management. Thus, the research hypothesis ( $H_1$ ) was accepted.

## Recommendation

A similar study can be replicated for a larger sample in different settings to make broad generalizations, and a comparative study can be conducted between reproductive age groups and post-menopausal women; a similar study can be conducted in college through the use of various audio-visual aids.

## Source of Funding

Self-funding.

## Ethical Clearance

Informed consent was obtained from the reproductive age groups, and permission was obtained from the principals of the selected colleges in Honavar. Ethical approval was also obtained.

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