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A Comparative Study to Assess the Effectiveness of Alalekaayi Water Rinse Versus Lukewarm Water Rinse on Leucorrhea Among Reproductive Age Women Working in A Selected Institutions at Namakkal District

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ABSTRACT

Leucorrhea, commonly referred to as vaginal discharge, is a physiological phenomenon in women of reproductive age. It usually consists of whitish or yellowish discharge from the vagina, resulting from increased secretions by the vaginal and endocervical glands. The aim of this study is to compare the effectiveness of the selected symptoms of leucorrhoea among reproductive age women in experimental group I and experimental group II, To evaluate the effectiveness of Alalekaayi water wash and Lukewarm water wash by comparing pre-test and post-test score on leucorrhoea among women in experimental group I and experimental group II and To compare the effectiveness of Alalekaayi water wash and Lukewarm water wash on leucorrhoea among women in experimental group I and experimental group II in a selected institutions at Namakkal district. A qualitative approach with quasi experimental design was adopted for the present study. The samples selected for the study were 40 by using non probability purposive sampling technique in which 30 were selected for Experimental group I and 30 for Experimental group II. Data was collected by using structured interview questionnaire to assess the symptoms of leucorrhoea. The significant finding was assessed by using test retest method. Correlation coefficient value of reliability is 0.98. The results shows that, Experimental group I pre test mean value is 5.47 and post test mean value is 1.56, and Experimental group II pre test mean value is 5.63 and post test value is 4.28. There was more effectiveness in Color of vaginal discharge, Consistency of Vaginal discharge, Odour, Vaginal itching, Vaginal Burning Sensation, Quantity and Lower back pain by using Alalekaayi water wash (experimental group I) t=17.39 p<0.00001***DF=29 which is Highly Significant, in Lukewarm water wash (experimental group II) t= 2.89 p<0.00001***DF=29 which is Significant. By these interventions, we can provide the relevant information to the subjects and clearing up the misconceptions and they can understand locally available Alalekaayi water wash on leucorrhoea is the best possible treatment option among reproductive age women.

Keywords: *Effectiveness, Alalekaayi water, lukewarm water, Leucorrhea, reproductive age women.*

1. INTRODUCTION

Leucorrhea, also known as fluor albus, is a thick, whitish, yellowish or greenish vaginal discharge. It has also been referred to as "the whites". There are many causes of leucorrhea, the usual one being estrogen imbalance. The amount of discharge may increase due to vaginal infection, and it may disappear and reappear from time to time. This discharge can keep occurring for years, in which case it becomes more yellow and strong-smelling. It is usually a non-pathological symptom secondary to inflammatory conditions of the vagina or cervix. Leucorrhea can be confirmed by finding >10 WBC per

high-power field under a microscope when examining vaginal fluid. Although a small amount of discharge is considered normal due to cyclical hormonal changes, excessive, persistent, or foul-smelling leucorrhea can indicate an underlying infection, inflammation, or poor genital hygiene. It is often associated with itching, burning sensation, discomfort, and embarrassment, significantly affecting women's quality of life and psychological well-being.

Globally, reproductive tract infections (RTIs) remain one of the major causes of leucorrhea among women. According to the World Health Organization (WHO, 2023), nearly 75% of women experience abnormal vaginal discharge at least once in their lifetime, with higher prevalence in low- and middle-income countries due to poor hygiene practices, lack of awareness, and limited healthcare access. In India, studies have shown that the prevalence of pathological leucorrhea among reproductive-age women ranges from 30% to 40%, with rural women being disproportionately affected due to limited resources and lack of proper health education.

Management of leucorrhea involves maintaining genital hygiene, improving nutritional status, and using medicinal or natural remedies. Among various natural remedies, Alalekaayi (Terminalia chebula) —a medicinal fruit widely used in Ayurveda —has antimicrobial, antifungal, and anti-inflammatory properties, making it an effective herbal option for maintaining vaginal hygiene. On the other hand, lukewarm water rinses are a widely practiced, simple, and non-invasive intervention recommended for maintaining external genital cleanliness.

Despite the availability of medical treatments, many women prefer cost-effective, safe, and culturally acceptable home-based interventions. However, limited evidence is available comparing the effectiveness of Alalekaayi water rinse with lukewarm water rinse in reducing symptoms of leucorrhea. Therefore, this study aims to assess and compare the efficacy of these two interventions among reproductive-age women at a selected designated facility in Namakkal district.

2. NEED FOR THE STUDY

Women in the reproductive age group (15–45 years) are at a higher risk of developing vaginal infections and related complications due to hormonal changes, poor menstrual hygiene, and unsafe sexual practices. In India, abnormal vaginal discharge is one of the most commonly reported gynecological complaints in primary healthcare settings. Despite its prevalence, many women hesitate to seek timely medical attention due to social stigma, lack of awareness, and cultural barriers, leading to chronic infections and reproductive health problems.

Leucorrhea, if left untreated, can result in complications such as pelvic inflammatory disease, infertility, recurrent urinary tract infections, and adverse pregnancy outcomes. Addressing this issue requires low-cost, accessible, and acceptable interventions that women can practice in their daily lives without fear or hesitation.

While lukewarm water rinses are widely recommended for genital hygiene, herbal remedies like Alalekaayi have gained popularity due to their antimicrobial and anti-inflammatory properties. Alalekaayi (Terminalia chebula) has been used in traditional medicine for centuries and is reported to be effective in reducing infections, controlling excessive vaginal discharge, and maintaining the natural pH balance of the genital tract. However, there is limited clinical evidence comparing its effectiveness with conventional hygienic practices.

This research is needed because high prevalence of leucorrhea among reproductive-age women in rural areas like Namakkal district. Lack of awareness and limited access to affordable treatments among women in these communities. Scarcity of scientific evidence comparing herbal remedies like Alalekaayi water rinse with simple hygienic practices. Potential to promote safe, cost-effective, and culturally acceptable interventions for improving women's reproductive health.

OBJECTIVES:

- To assess the effectiveness of Alalekaayi water rinse and Lukewarm water rinse on leucorrhea among reproductive age women in experimental group I and experimental group II.
- To compare the effectiveness of Alalekaayi water rinse and Lukewarm water rinse on leucorrhea among reproductive age women in experimental group 1 and experimental group II.
- To associate the post test level of leucorrhea on reproductive age women with the selected demographic variables in experimental group I and experimental group II.

HYPOTHESIS:

H1 There is a significant difference between the pre and post test level of leucorrhea among reproductive age women in experimental group I and experimental group II.

H2: There is a significant difference between the post test score of Alalekaayi water rinse and Lukewarm water rinse on level of leucorrhea among reproductive age women in experimental group I and experimental group II.

H3 There is a significant association between the post test level of leucorrhea with their selected demographic variables in experimental group 1 and experimental group II.

RESEARCH METHODOLOGY:

A quantitative approach, quasi-experimental two group pre test- post test design was adopted for the study. An accessible population for this study comprised women of reproductive age, specifically between 18 and 50 years old, who exhibited symptoms of leucorrhoea. A total sample size of 60 reproductive-age women was determined, with 30 participants allocated to each group (Alalekaayi water wash and lukewarm water wash). The sampling technique employed was non-probability purposive sampling. This method ensured that individuals with symptoms of leucorrhoea were included in the study, thus facilitating a focused investigation into the effectiveness of the interventions under consideration. A structured interview questionnaire was utilized to assess leucorrhoea symptoms before and after the intervention. Experimental group I received Alalekaayi water wash, prepared by adding 10g of Alalekaayi powder to 60ml of boiled water, mixed with 1000ml of warm water. Experimental group II received lukewarm water wash, prepared by boiling 1 liter of water until reaching 450-500 degrees Celsius, then warmed to 380 degrees Celsius as measured by a lotion thermometer, both administered twice daily for 15 days. The effectiveness of the interventions was evaluated using descriptive and inferential statistics.

SECTION A

DISTRIBUTION OF REPRODUCTIVE AGE WOMEN ACCORDING TO THE DEMOGRAPHIC VARIABLES IN EXPERIMENTAL GROUP-I AND GROUP-II

Table 1: **n=60 (30+30)**

S.No	Demographic variables	Experimental Group– I (30) (ALALEKAAYI WATER)		Experimental Group–II (30) (LEUKWARM WATER)	
		F	%	F	%
1	**Age (years)**				
	a.18-25	7	23	4	13
	b.26-35	12	40	13	44
	c.36-45	8	27	10	33
	d.46-50	3	10	3	10
2	**Educational status**				
	a. No formal education	3	10	5	16
	b. Primary education	16	54	14	57
	c. High school/ higher secondary education	4	13	6	20
	d. Diploma/Graduate	7	23	5	17
3	**Occupation**				
	a. Scavengers	6	20	8	26
	b. Office staffs	4	13	3	10
	c. Teaching staffs	14	47	15	50
	d. Lab. Assistant	6	20	4	14
4	**Family monthly income**				
	a. <5000	2	6	3	10
	b. 5001-10000	6	20	8	27
	c. 10001-20000	12	40	14	46
	d. >20001	10	34	5	17

5	**Religion** a. Hindu b. Christian c. Muslim	 19 6 5	 64 20 16	 21 4 5	 70 13 17
6	**Marital Status** a. Unmarried b. Married c. Divorced d. Widow	 0 26 4 0	 0 87 13 0	 0 23 7 0	 0 76 24 0
7	**Parity** a. No child b. One c. Two d. More than two	 4 13 6 7	 13 44 20 23	 3 15 5 7	 10 50 17 23
8	**Type of family** a. Nuclear b. Joint c. Extended	 16 8 6	 53 27 20	 19 7 4	 63 24 13
9	**Place of residence** a. Urban b. Rural c. Semi urban	 19 5 6	 64 16 20	 18 8 4	 60 27 13
10	**Dietary pattern** a. Vegetarian b. Non vegetarian	 12 18	 40 60	 9 21	 30 70
11	**Mode of delivery** a. Normal delivery b. LSCS	 6 24	 20 80	 8 22	 27 73
12	**Previous source of knowledge** a. Neighbours b. Friends and peer groups c. HealthProfessionals d. Media	 8 6 12 4	 27 20 40 13	 6 5 16 3	 20 26 54 10

The above table 1 depicts that, highest Percentagewise distribution of reproductive age women based on age group of 26-33 years both in experimental group I (40%), and experimental group II (44%). In educational status, reveals that the highest

percentage 16 (54%), and 14 (57%) of women had primary education in both the group. In occupation, reveals that the highest percentage 14 (47%), and 15 (50%) women were teaching staffs in both the group. In family monthly income, reveals that the highest percentage 12 (40%), and 14 (46%) women were earning 10001-20000 in both the group. In religion, reveals that the highest percentage 19 (64%), and 21 (70%) women belongs to Hindu in both the group. In marital status, reveals that the highest percentage 26 (87%), and 23 (76%) women were married in both the group. In parity, reveals that the highest percentage 13 (44%), and 15 (50%) women had one child in both the group. In type of family, reveals that the highest percentage 16 (53%), and 19 (63%) women were belongs to nuclear family in both the group. In place of residence, reveals that the highest percentage 19 (64%), and 18 (60%) women were living in urban area in both the group. In dietary pattern, reveals that the highest percentage 18 (60%), and 21 (60%) women were non vegetarian in both the group. In mode of delivery, reveals that the highest percentage 24 (80%), and 22 (73%) women had LSCS in both the group. And, in previous source of knowledge, reveals that the highest percentage 12 (40%), and 16 (54%) women gathered knowledge from health professionals in both the group.

SECTION B

DISTRIBUTION OF REPRODUCTIVE AGE WOMEN ACCORDING TO THE CLINICAL VARIABLES IN EXPERIMENTAL GROUP-I AND GROUP-II

Table 2: **n=60 (30+30)**

S.No	Clinical variables	Experimental Group– I (30)		Experimental Group–II (30)	
		F	%	F	%
1	**Period of menstruation Once in number of days**				
	a.25-27	13	43	14	46
	b.28-30	9	30	8	27
	c. >30	8	27	8	27
	d. Irregular	0	0	0	0
2	**Duration**				
	a. 1-3 days	13	43	16	53
	b. 4-7 days	14	47	8	27
	c. >7 days	3	10	6	20
3	**Frequency**				
	a. Everyday present	11	37	14	47
	b. On and off	14	47	13	43
	c. Occasional	5	16	3	10
4	**Texture**				
	a. Frothy greenish discharge	5	16	6	20
	b. Whitish, curdy discharge	12	40	11	37
	c. Milky discharge ,bad odour	6	20	8	37
	d. Watery discharge	7	24	5	16

5	**Nature**				
	a. Wetand stain	5	16	6	20
	b. Stainalone	16	54	19	64
	c. Wetonly	9	30	5	16
6	**Aggravating factors**				
	a. Ovulation	14	46	10	33
	b. Sexual activity	8	27	4	13
	c. Menstrual cycle	8	27	16	54
7	**Burning sensation**				
	a. No	0	0	0	0
	b. Mild	12	40	14	47
	c. Moderate	13	43	16	53
	d. Severe	5	17	0	0
8	**Vaginal itching**				
	a. No	2	6	0	0
	b. Mild	6	20	10	33
	c. Moderate	18	60	17	57
	d. Severe	4	14	3	10
9	**Fish odoursmell**				
	a. No	0	0	0	0
	b. Mild	17	57	19	64
	c. Moderate.	8	27	8	27
	d. Severe	5	16	3	10
10	**Low back pain**				
	a. No	0	0	0	0
	b. Mild	4	13	3	10
	c. Moderate	19	63	21	70
	d. Severe	7	24	6	20
11	**Contraceptive methods adopted**				
	a. Temporary	17	57	21	70
	b. Permanent	9	30	7	23
	c. Not using any method	4	13	2	7
12	**Management**				
	a. Nothing doing	6	20	3	10
	b. Cold water wash	14	47	16	53
	c. Tap water wash	10	33	11	37

13	**Assimilation of secretion**				
	a. Not using anything	0	0	0	0
	b. Cloth	16	53	13	43
	c. Panties	14	47	17	57

SECTION–C

DISTRIBUTION OF REPRODUCTIVE AGE WOMEN ACCORDING TO THE LEVEL OF LEUCORRHEA IN EXPERIMENTAL GROUP-I AND GROUP-II IN PRE TEST

Table 3:

Pre test	Mild		Moderate		Severe	
	F	%	F	%	F	%
Group I	3	10	19	63	8	27
Group II	2	7	24	80	4	13

Figure 1:

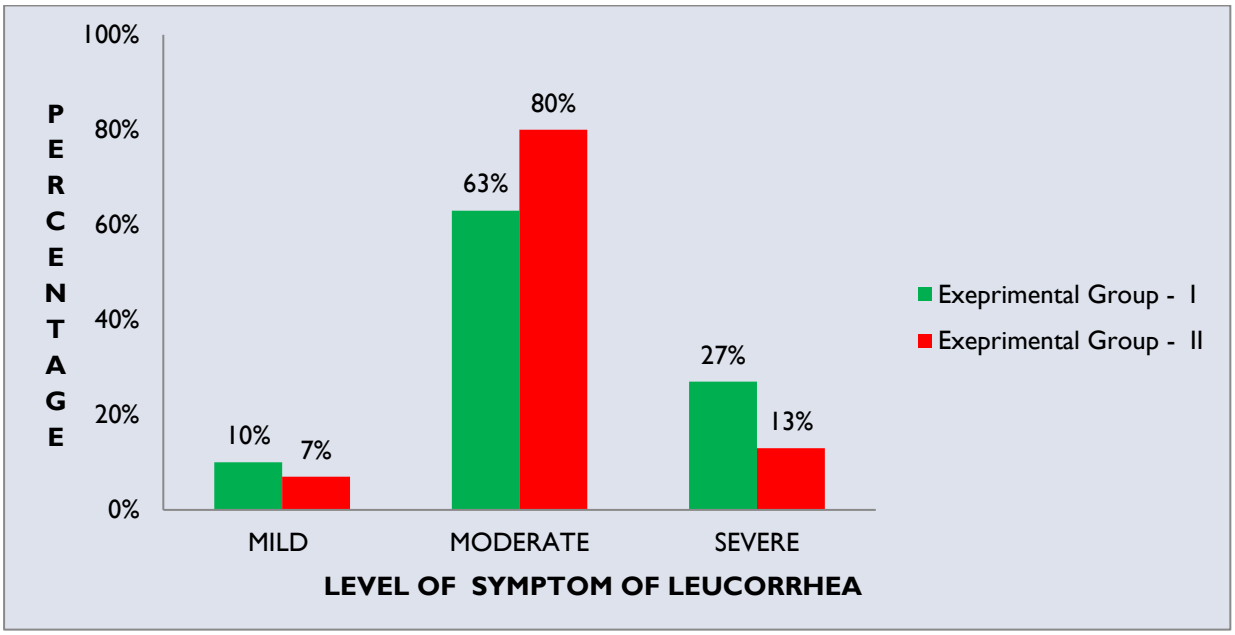

Figure: 1.Bar diagram quotes distribution of subjects according to their level of leucorrhea in experimental group I and group II in pre test.

DISTRIBUTION OF REPRODUCTIVE AGE WOMEN ACCORDING TO THE LEVEL OF LEUCORRHEA IN EXPERIMENTAL GROUP-I AND GROUP-II IN POST TEST

Table 4:

Post test	Mild		Moderate		Severe	
	F	%	F	%	F	%
Group I	27	90	3	10	0	0
Group II	12	40	18	60	0	0

Fig 2:

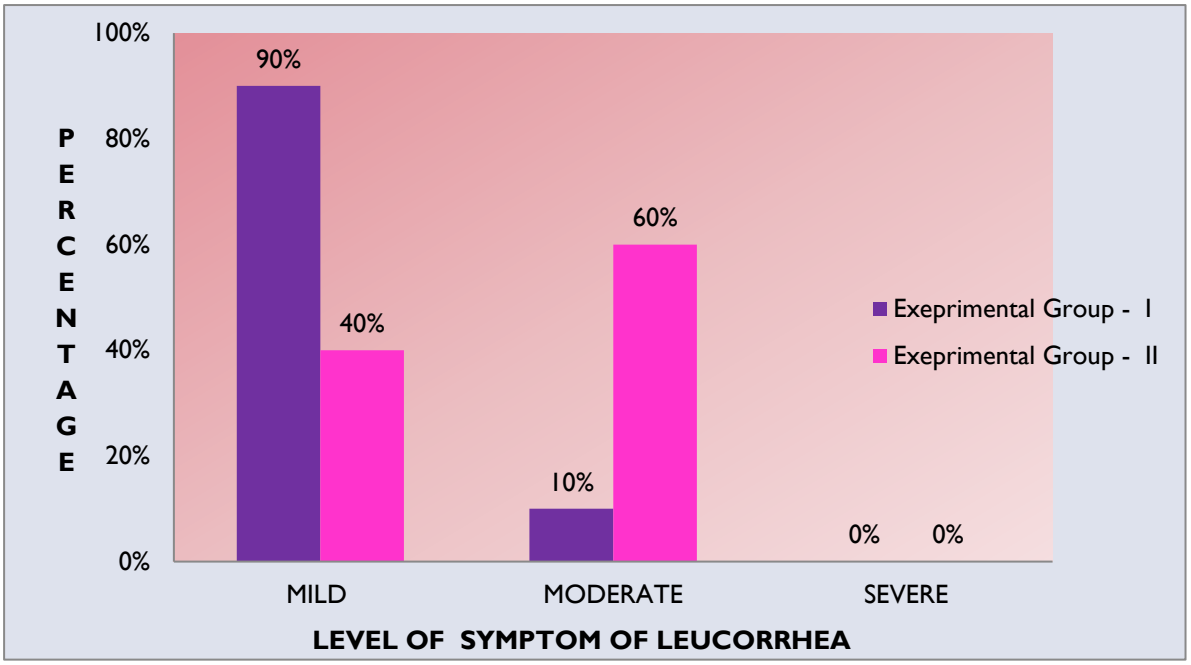

Figure:2 Bar diagram quotes distribution of subjects according to their level of leucorrhea in experimental group I and group II in post- test.

SECTION-D

COMPARISION OF PRE AND POST TEST SCORES OF ALALEKAAYI WATER RINSE VERSUSLUKEWARM WATER RINSE ON LEUCORRHEA AMONG REPRODUCTIVE AGE WOMEN IN EXPERIMENTAL GROUP-I AND EXPERIMENTAL GROUP-II

Table 5: Mean and standard deviation with pre and post test scores of symptom of leucorrhea in experimental group-I and experimental group-II

S.No	Group	Mean		SD	MEAN DIFFERENCE	't' VALUE	SIGNIFICANT
		Pre test	Post test				
1	Experimental group-I	5.47	1.56	1.23	3.91	17.39	***p < 0.001 (Highly Significant)
2	Experimental group-II	5.63	4.28	2.56	1.35	2.89	p < 0.01 (Significant)

Signicant p <0.00001* Highly significant.**

Table 5 depicts that in experimental group I during pre test the mean value was 5.47, in post test the mean value was 1.56, standard deviation was 1.23 and mean difference 3.91, and 't' value 17.39 which was highly significant in the p<0.0001 level. Whereas, in Experimental group II during pre test the mean value was 5.63, in post test the mean value was 4.28, standard deviation was 2.56, mean difference 1.35, and 't' value 2.89 which was significant and there is difference between pre and post score of level leucorrhea. **Hence, Alalekaayi water was most effective than lukewarm water among reproductive age women.**

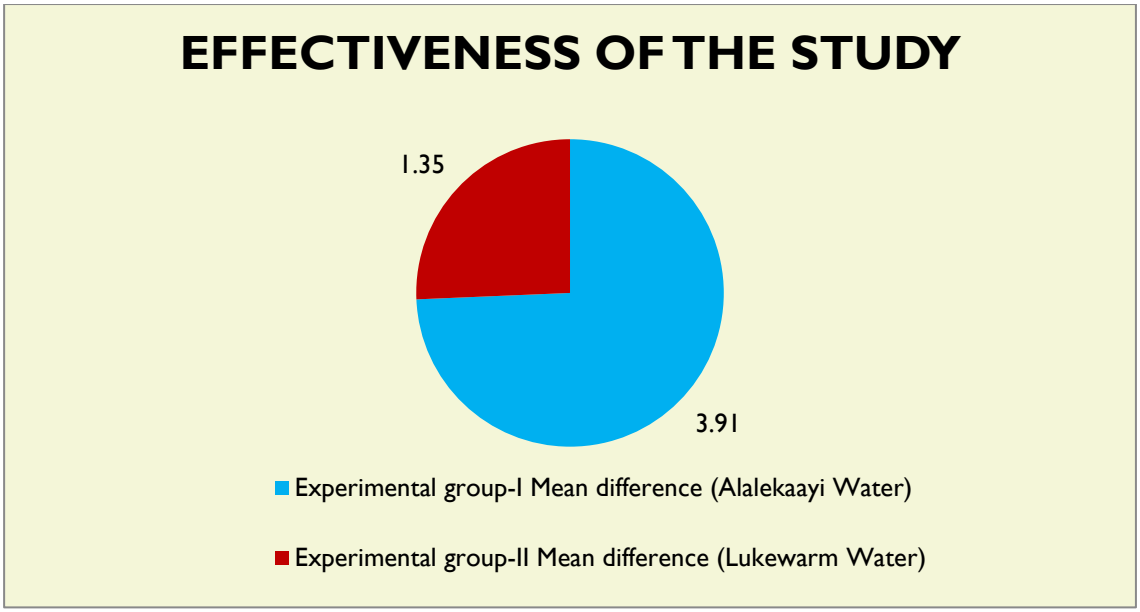

Figure 3: pie diagram depicts the effectiveness of Alalekaayi Water than Lukewarm Water.

ASSOCIATION BETWEEN POST TEST SCORES ALALEKAAYI WATER RINSE VERSUS LUKEWARM WATER RINSE ON LEUCORRHEA AMONG REPRODUCTIVE AGE WOMEN IN EXPERIMENTAL GROUP-I AND EXPERIMENTAL GROUP – II

Table 6: Association between post test score of Alalekaayi water rinse on leucorrhea among reproductive age women in experimental group – I n= 30

S.No	Demographic variables	Experimental group-I			Chi square value
		Mild	Moderate	Severe	
1	**Age** a.18-25 b.26-35 c.36-45 d.46-50	 6 10 8 3	 1 2 0 0	 0 0 0 0	 2.43 DF=3, NS
2	**Educational Status** a. No formal education b. Primary education c. High school/ higher secondary d. Diploma /Graduate	 3 14 4 6	 0 2 0 1	 0 0 0 0	 6.41 Df=3, NS
3	**Occupation** a. Scavengers b. Office staffs c. Teaching staffs d. Lab. Assistant	 6 3 13 5	 0 1 1 1	 0 0 0 0	 3.46 Df=3, NS
4	**Family Monthly Income** a. <5000	 0	 7	 0	15.04** Df= 3,

	b. 5001-10000 c. 10001-20000 d. >20001	5 12 1	3 2 0	0 0 0	**S**
5	**Religion** a. Hindu b.Christian c. Muslim	 18 7 5	 1 1 1	 0 0 0	7.19** Df=2, **S**
6	**Marital Status** a.Unmarried b.Married c.Divorced d.Widow	 0 17 3 2	 0 4 4 0	 0 0 0 0	 4.48 Df = 3, NS
7	**Parity** a. No child b. One c. Two d. More than two	 12 5 4 0	 0 5 4 0	 0 0 0 0	8.57** Df= 2, **S**
8	**Type of family** a. Nuclear b. Joint c. Extended	 14 7 5	 2 1 1	 0 0 0	1.89 Df=2, NS
9	**Place of residence** a. Urban b. Rural c. Semi urban	 16 5 4	 2 1 2	 0 0 0	1.60 Df= 2, NS
10	**Dietary pattern** a. Vegetarian b. Non vegetarian	 10 12	 2 6	 0 0	1.02 Df=1, NS
11	**Mode of delivery** a. Normal delivery b. LSCS	 5 22	 1 2	 0 0	5.26** Df=1, **S**
12	**Previous source of knowledge** a. Neighbours b. Friends and peer groups c. HealthProfessionals d. Media	 7 6 10 4	 1 0 2 0	 0 0 0 0	 10.56** Df = 3, **S**

Table 5: depicts that association between level of leucorrhea with selected demographic variables in experimental group I.

RESULTS: The data were analyzed by using descriptive and inferential statistics. The findings showed a statistically no significant association between level of leucorrhea on variables age, education status, occupation, married status, type of family, place of residence, and dietary pattern. There was significant association with level of leucorrhea on family monthly income, religion, parity, mode of delivery and previous sources of knowledge.

Table 6: Association between post test score of lukewarm water rinse on leucorrhea among reproductive age women in experimental group – II n= 30

S.No	Demographic variables	Experimental group-II			Chi square value
		Mild	Moderate	Severe	
1	**Age** a. 18-25 b. 26-35 c. 36-45 d. 46-50	 2 4 3 3	 2 9 7 0	 0 0 0 0	 4.16 Df=3, NS
2	**Educational status** a.No formal education b. Primary education c.High school/higher secondary education d.Diploma/Graduate	 2 5 2 3	 3 9 4 2	 0 0 0 0	 2.34 Df=3, NS
3	**Occupation** a. Scavengers b. Office staffs c. Teaching staffs d. Lab. Assistant	 3 1 5 3	 5 2 10 1	 0 0 0 0	 5.68 Df=3, NS
4	**Family monthly income** a. <5000 b. 5001-10000 c. 10001-20000 d. >20001	 5 7 2 1	 7 3 5 0	 0 0 0 0	 4.22 Df= 3, NS
5	**Religion** a.Hindu b.Christian c.Muslim	 6 3 3	 15 1 2	 0 0 0	 1.56 Df=2, NS
6	**Marital Status** a.Unmarried b.Married c.Divorced d.Widow	 0 6 3 2	 0 15 4 0	 0 0 0 0	 4.206 Df = 3, NS

7	**Parity** a. No child b. One c. Two d. More than two	 2 2 1 1	 5 15 4 0	 0 0 0 0	5.041 Df= 3, N**S**
8	**Type of family** a.Nuclear b.Joint c. Extended	 6 5 1	 13 2 3	 0 0 0	7.12** Df=2, **S**
9	**Place of residence** a. Urban b. Rural c. Semi urban	 8 2 0	 12 4 4	 0 0 0	2.393 Df= 2, NS
10	**Dietary pattern** a. Vegetarian b. Non vegetarian	 3 3	 14 10	 0 0	0.136 Df=1, NS
11	**Mode of delivery** a. Normal delivery b. LSCS	 3 9	 5 13	 0 0	1.46 Df=1, NS
12	**Previous Source of knowledge** a. Neighbours b. Friends and peer groups c. Health Professionals d. Media	 4 2 6 0	 2 3 10 3	 0 0 0 0	8.56*Df=3,**S**

Table 6: depicts that association between level of leucorrhea with selected demographic variables in experimental group II.

RESULTS: The data were analyzed by using descriptive and inferential statistics. The findings showed a statistically no significant association between level of leucorrhea on variables age, education status, occupation, family monthly income, religion, married status, parity, place of residence, and dietary pattern, and mode of delivery. There was significant association with level of leucorrhea on type of family, and previous sources of knowledge.

3. DISCUSSION

Objectives 1: To assess effectiveness of Alalekaayi water rinse and lukewarm water rinse on leucorrhea among reproductive age women in experimental group I and experimental group II.

In pre test, Experimental group-1: 3 (10%) of them had mild level, 19 (63%) of them had moderate level, and 8 (27%) of them had severe level. Experimental group-II: 2 (7%) of them had mild level, 24 (80%) of them had moderate level, and 4 (13%) of them had severe level according to leucorrhea.

In post test, Experimental group-1: 27 (90%) of them had mild level, 3 (10%) of them had moderate level, and none of them in severe level. Experimental group-II: 12 (40%) of them had mild level, 18(60%) of them had moderate level, and none of them in severe level according to leucorrhea

In experimental group I, during pre test the mean value was 5.47, and standard deviation was 1.23. In post test the mean value was 1.56, and standard deviation was 1.23. In Experimental group II, during pre test the mean value was 5.63, and standard deviation was 2.56. In post test the mean value was 4.28, and standard deviation was 2.56.

In experimental group 1 the “t” value between pre and post test score of level of symptom of leucorrhea was 17.39 which

was highly significant and there is difference between pre and post test level among leucorrhea. So the Alalekaayi water rinse was effective among reproductive age women. In experimental group II the "t" value between pre and post test scores was 2.89. Which was significant and there is difference between pre and post score of level leucorrhea.

H1 Hypothesis "There will be significant difference between the pre and post test level of leucorrhea among reproductive age women in experimental group I and cxperimental group II" was accepted.

Objectives 2: To compare the effectiveness of Alalekaayi water rinse and lukewarm water rinse on leucorrhea among reproductive age women in experimental group I and experimental group II.

In experimental group I, the mean post test value was 1.56, and the standard deviation was 1.23 and in experimental group II, the mean post test value was 4.28, and the standard deviation was 2.56. The calculated t" value was 2.89. Since the value was greater than the table value there was significant difference between the post test level of Alalekaayi water rinse and lukewarm water rinse on level of leucorrhea among reproductive age women.

This finding was also supported by a study done by Dr.J.Vijayashalini (2024) A quasi-experimental design was used with 40 women divided into two groups: Experimental group I received Alalekaayi water wash, and Experimental group II received lukewarm water wash. This study shows that there is significant difference between the mean score of the post-test for the experimental group is 10.8, with a standard deviation of 2.34. The paired t-test statistic is 25.43, indicating a significant difference between the pre-test and post-test means. This suggests that the intervention or treatment had a statistically significant effect on the performance of the subjects in the experimental group.

H2 Hypothesis "There will be significant difference between the post test score of Alalekaayi water rinse and lukewarm water rinse on level of leucorrhea among reproductive age women in experimental group I and experimental group II" was accepted.

Objectives 3: To associate the post test level of leucorrhea reproductive age women with the selected demographic variables in experimental group I and experimental group II.

In experimental group-1, the analysis revealed that there was no significant association between level of leucorrhea on variables age, education status, occupation, married status, type of family, place of residence, and dietary pattern. There was significant association with level of leucorrhea on family monthly income, religion, parity, mode of delivery and previous sources of knowledge.

In experimental group-II, the analysis revealed that there was no significant association between level of leucorrhea on variables age, education status, occupation, family monthly income, religion, married status, parity, place of residence, and dietary pattern, and mode of delivery. There was significant association with level of leucorrhea on type of family, and previous sources of knowledge.

This finding was also supported by a study done by Chirashree Giri, Menaka P (2021) A quasi-experimental design was used with 40 women divided into two groups: Experimental group I received Alalekaayi water wash, and Experimental group II received lukewarm water wash. The study results shown that there was more effectiveness in Color of vaginal discharge, Consistency of Vaginal discharge, Odour, Vaginal itching, Vaginal Burning Sensation, Quantity and Lower back pain by using Alalekaayi water wash. Alalekaayi water wash $t=25.43$. $p < 0.00001$ *** DF=19 which was significant, Lukewarm water wash $t=11.06$ $p < 0.00001$ *** DF=19 which was Significant. The effectiveness of Alalekaayi water wash was better than the Lukewarm water wash $t=12.17$ $p< 0.00001$ DF=38 which was Significant. This suggests that the intervention or treatment had a statistically significant effect on the performance of the subjects in the experimental group.

Hence, **H3 Hypothesis "There will be significant association between the post test level of leucorrhea with their selected demographic variables in experimental group I and experimental group II" was accepted.**

4. CONCLUSION

Meeting the needs of the women and family is one of the primary responsibilities of a midwife. Reproductive age women may have difficulties such as arthritis, leucorrhea, muscle weakness etc. Due to leucorrhea, the women may have lower abdominal pain, intense itching, burning micturation, irritability, tiredness etc. So the symptom of leucorrhea is essential one to be reduced. The symptom of leucorrhea can be reduced by using Alalekaayi water rinse which is cheap and best method and also the preparation of Alalekaayi water rinse is very easy. The Alalekaayi is available is all shops. Perineal wash with Alalekaayi water is low cost effective when comparing to other antiseptic lotions. It may not cause any infection, itching and irritation. This study statistically proves the reduction of symptom of leucorrhea by Alalekaayi water rinse at p=0.001% highly significant level.

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