



A COMPARATIVE STUDY TO ASSESS THE EFFECTIVENESS OF SALT WATER WASH VERSUS WARM WATER WASH ON PREVENTION OF VAGINAL INFECTION FOR LEUCORRHEA AMONG PRE MENOPAUSE WOMEN AT KUMARAPALAYAM

1. Dr. Mrs. R. JamunaRani, M.Sc., (N), Ph.D.,

Principal, Sreesakthimayeil Institute of Nursing and Research (JKK Nataraja Educational Institutions),
Kumarapalayam - 638183, Namakkal Dt.

2. Prof. Mrs. Kalamani, M.Sc., (N),

HOD, Obstetrics and Gynecological Nursing,
Sreesakthimayeil Institute of Nursing and Research (JKK Nataraja Educational Institutions), Kumarapalayam -
638183, Namakkal Dt.

3. Mrs.M.Iswarya, M.Sc. (N) II year

Sreesakthimayeil Institute of Nursing and Research (JKK Nataraja Educational Institutions), Kumarapalayam -
638183, Namakkal Dt.

ABSTRACT

This study was carried out to A comparative study to assess the effectiveness of salt water wash versus warm water wash on prevention of vaginal infection for leucorrhoea among pre menopause women at Kumarapalayam. The study setting was Kumarapalayam Town in Namakkal district, Tamilnadu. The sample size was 30 pre menopausal women were in Study group I and 30 pre menopausal women were in study group II, who were selected by Purposive sampling technique. The tool used for the study comprised of Structured Questionnaire to collect Demographic Variables of pre menopausal women and Tool to assess the symptoms of vaginal infections. The assessment scale for assessing the level of symptoms of vaginal infections. The collected data were analyzed by using both descriptive and inferential statistical methods, and interpretations were made based on the objectives of the study. The study findings revealed that there is a significant association between the demographic variables with their level of symptoms of vaginal infections. Based on the findings of the study the following conclusions are drawn. There was a significant difference between pre and post test scores level of prevention of vaginal infection for leucorrhoea among Pre-Menopause Women in Group I and II. Based on the study the researcher accepted the hypothesis 1 and 2 also that there is significant association between level of Prevention of Vaginal Infection for Leucorrhoea among Pre-Menopause Women with the selected demographic variable of age in experimental group – I (salt water wash) and educational status in experimental group – 2 (warm water wash). So the researcher accept the hypothesis 3. Finally the researcher concluded that the warm water wash was effective and inexpensive more than the salt water wash on prevention of vaginal infection for leucorrhoea among Pre-Menopause Women in Group I and II.

INTRODUCTION

A woman juggles multiple roles and relationships in her life – a daughter, a sister, a wife, a mother, homemaker, professional – these are the traditionally accepted roles of women all over the world. Over the years, women are more determined to pursue education and follow their interests in the field of their choice. This new dimension adds to a woman’s responsibilities and tasks. **(Joice Antony, 2022)**

Menopause is the time that marks the end of your menstrual cycles. It's diagnosed after you've gone 12 months without a menstrual period. Menopause can happen in your 40s or 50s, but the average age is 51 in the United States. Menopause is a natural biological process. But the physical symptoms, such as hot flashes, and emotional symptoms of menopause may disrupt your sleep, lower your energy or affect emotional health. There are many effective treatments available, from lifestyle adjustments to hormone therapy. **(Johns Hopkins Medicine, 2021)**

NEED FOR THE STUDY

Women’s Health is the most important part of our country. Many home remedies and daily activities will give some changes in our health. In that same way, Salt solution wash and Warm water wash can give drastic improvement in vaginal infection and it may prevent the women from the leucorrhoea. It is easily available and a cost effective measure that a women can perform at home itself. Hence the researcher felt the need of doing this study to find out the effectiveness of salt solution wash and warm water wash on leucorrhoea among post menopausal women with the complaints of itching, burning and soreness.

OBJECTIVES

1. To assess and compare the pre and post test level of selected symptom of Vaginal Infection among post menopausal women in Study group I and Study group II.
2. To evaluate the effectiveness of salt solution wash and warm water wash on selected symptom of vaginal infection among post menopausal women in Study group I and Study group II.
3. To compare the effectiveness of salt solution wash and warm water wash on selected symptom of vaginal infection among post menopausal women in study group I and study group II.
4. To associate the post test level of selected symptom of vaginal infection on postmenopausal women with the selected demographic variables in Study group I and Study group II.

HYPOTHESIS

- H₁** - There is a significant difference between the pre and post test level of selected symptom of vaginal Infection among pre menopausal women in Study group I and Study group II.
- H₂** - There is a significant difference between the post test score of salt solution wash and warm water wash on level of selected symptom of Vaginal Infection among pre menopausal women in Study group I and Study group II.
- H₃** - There is a significant association between the post test level of selected symptom of Vaginal Infection with selected demographic variables in Study group I and Study group II.

RESEARCH DESIGN

Research design is the overall planning for collecting and analyzing data, including specifications for enhancing the internal and external validity of the study. **(Polit and Hungler, 2010)**

Research design is defined as “A researcher’s overall plan or blue print for obtaining answer to the research question or for testing hypothesis.” **(Carol L Macnee, 2016).**

A Quasi Experimental, comparison between subject design was used for this study.

The diagrammatic representation of this study is as follows:

R E1	O1	X1	O2
R E2	O1	X2	O2

(R: Random selection, X: Manipulation, O: Observation)

E1 - Study group I

E2- Study group II

O1- Leucorrhoea assessment on First day

O2- Leucorrhoea assessment on Five days after wash

X1- Perineal wash with salt water

X2- Perineal wash with warm water

RESEARCH VARIABLE**Independent variables:** Salt Water wash and Warm Water Wash.**Dependent variable:** Level of Vaginal Infections.**STUDY SETTING**

The study setting was Kumarapalayam Town in Namakkal district, Tamilnadu. The town had a population of 71,594.

SAMPLE SIZE

30 pre menopausal women were in Study group I and 30 pre menopausal women were in study group II.

SECTION - I: FREQUENCY AND PERCENTAGE WISE DISTRIBUTION OF DEMOGRAPHIC VARIABLES AMONG PRE-MENOPAUSE WOMEN FOR SALT WATER WASH GROUP I VERSUS WARM WATER WASH GROUP II.

Table - 4.1

Frequency and Percentage distribution of pre-menopause women in salt water wash group I versus warm water wash group II according to the demographic variables

(n = 60)

S. No	Demographic Variables	Group - I (n = 30)		Group - II (n = 30)	
		Salt Water Wash		Warm Water Wash	
		n	%	n	%
1	Age of Women				
	a) 41-45 years	7	23%	4	13%
	b) 46-50 years	12	40%	13	43%
	c) 51-55 years	8	27%	10	33%
	d) Above 55 years	3	10%	3	10%
2	Educational status				
	a) Illiterate	3	10%	5	17%
	b) Primary education	16	53%	14	47%
	c) High school / higher secondary education	4	13%	6	20%
	d) Diploma / Graduate	7	23%	5	17%
3	Occupation				
	a) Housewife	6	20%	8	27%
	b) Daily wages	4	13%	3	10%
	c) Private employee	14	47%	15	50%
	d) Govt. employee	6	20%	4	13%
4	Religion				
	a) Hindu	19	63%	21	70%
	b) Christian	6	20%	4	13%
	c) Muslim	5	17%	5	17%
5	Parity				
	a) No child	4	13%	2	7%
	b) One	13	43%	16	53%
	c) Two	6	20%	7	23%
	d) More than two	7	23%	5	17%
6	Mode of delivery				

S. No	Demographic Variables	Group - I (n = 30)		Group - II (n = 30)	
		Salt Water Wash		Warm Water Wash	
		n	%	n	%
a) Normal delivery	12	40%	16	53%	
b) LSCS	18	60%	14	47%	

The above **Table 4.1** show that, among 30 sample with regards to **age**, 7 (23%) were 41-45 years, 12 (40%) were 46-50 years, 8 (27%) were 51-55 years and 3 (10%) were above 55 years in salt water wash. In warm water wash 4 (13%) were 41-45 years, 13 (43%) were 46-50 years, 10 (33%) were 51-55 years and 3 (10%) were above 55 years.

Regarding **Educational status**, 3 (10%) were Illiterate, 16(53%) were Primary education, 4(13%) were High school / higher secondary education and 7(23%) were Diploma / Graduate in salt water wash. In warm water wash 5(17%) were Illiterate, 14(47%) were Primary education, 6(20%) were High school / higher secondary education and 5(17%) were Diploma / Graduate.

Regarding **Occupation status**, 6 (20%) were Housewife, 4(13%) were Daily wages, 14(47%) were Private employee and 6(20%) were Govt. employee in salt water wash. In warm water wash 8(27%) were House wife, 3(10%) were Daily wages 15(50%) were Private employee and 4(13%) were Govt. employee.

Regarding **Religion status**, 19 (63%) were Hindu ,6(20%) were Christian, 5(17%) were Muslim in salt water wash. In warm water wash 21(70%) were Hindu ,4(13%) were Christian, 5(17%) were Muslim.

Regarding **Parity status**, 6 (20%) were No child ,13(43%) were One child, 6(20%) were Two child and 7(23%) were More than two child in salt water wash. In warm water wash 2(7%) were No child ,16(53%) were One child 7(23%) were Two child and 5(17%) were More than two child.

Regarding **Mode of Delivery**, 12(40%) were Normal Delivery and 18(60%) were LSCS in salt water wash. In warm water wash 16(53%) were Normal Delivery and 14(47%) were LSCS.

SECTION - II: DISTRIBUTION OF THE EFFECTIVENESS OF SALT WATER AND WARM WATER WASH LEVEL PREVENTION OF VAGINAL INFECTION FOR LEUCORRHEA AMONG PRE-MENOPAUSE WOMEN IN CONTROL GROUP I & II AND EXPERIMENTAL GROUP I & II

Table - 4.2

Frequency and distribution of the effectiveness of salt water wash level prevention of vaginal infection for leucorrhoea among pre-menopause women in control group I and experimental group I (n = 30)

S. No	Infection Level	Control Group I		Experimental Group I	
		N	Percentage	N	Percentage
1	No Vaginal Infection	0	0	0	0
2	Mild Level of Vaginal Infection	0	0	16	54%
3	Moderate Level of Vaginal Infection	12	40%	14	46%
4	Severe Level of Vaginal Infection	18	60%	0	0

Table - 4.2 shows that the frequency and distribution of the effectiveness of salt water wash level prevention of vaginal infection for leucorrhoea among pre-menopause women in control group I and experimental group I.

The inferences made were, in majority of them 12 (40%) had Moderate Level of Vaginal Infection and 18 (60%) had Severe Level of Vaginal Infection in the control group and 16 (54%) Mild Level of Vaginal Infection and 14 (46%) had Moderate Level of Vaginal Infection in the Experimental group.

Table - 4.3

Frequency and distribution of the effectiveness of warm water wash level prevention of vaginal infection for leucorrhoea among pre-menopause women in control group II and experimental group II

(n = 30)

S. No	Infection Level	Control Group II		Experimental Group II	
		N	Percentage	N	Percentage
1	No Vaginal Infection	0	0	0	0
2	Mild Level of Vaginal Infection	0	0	19	64%
3	Moderate Level of Vaginal Infection	9	30%	11	36%
4	Severe Level of Vaginal Infection	21	70%	0	0

Table - 4.3 shows that the frequency and distribution of the effectiveness of warm water wash level prevention of vaginal infection for leucorrhoea among pre-menopause women in control group II and experimental group II.

The inferences made were, in majority of them 9(30%) had Moderate Level of Vaginal Infection and 21 (70%) had Severe Level of Vaginal Infection in the control group and 19(64%) Mild Level of Vaginal Infection and 11 (36%) had Moderate Level of Vaginal Infection in the Experimental group.

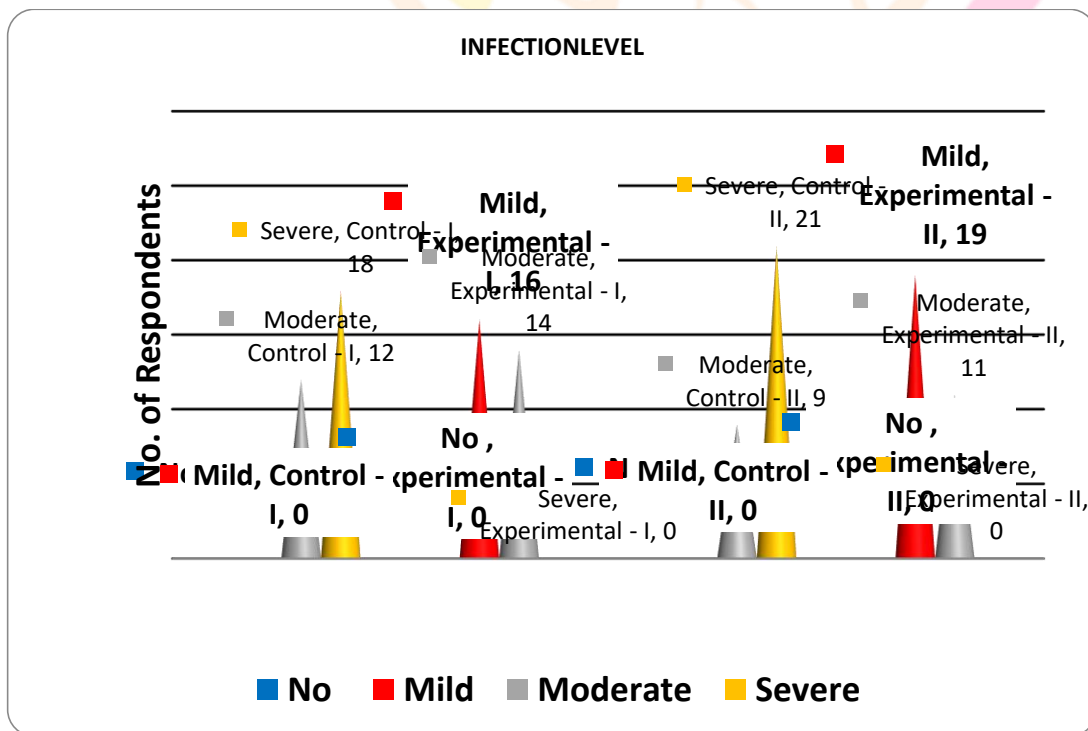


Fig. 4.7: Frequency and Percentage distribution of the infection level of salt water and warm water wash level prevention of vaginal infection for leucorrhoea among pre-menopause women in control group I & II and experimental group I & II

SECTION-III: COMPARISON OF PRE AND POST TEST SCORES LEVEL OF PREVENTION OF VAGINAL INFECTION FOR LEUCORRHOEA AMONG PRE-MENOPAUSE WOMEN IN GROUP I & II

Table - 4.4

Comparison of mean and standard deviation of pre and post test scores level of Prevention of Vaginal Infection for Leucorrhoea among Pre-Menopause Women in Group I

(n = 30)

S. No	Group	Mean	Standard deviation	Mean difference	Paired 't' value
1	Control Group	7.4	1.8	4.2	10.92**
2	Experimental Group	3.2	1.08		

df=29

P< 0.05

Table - 4.4 shows that the comparison of mean and standard deviation of pre and post test scores level of Prevention of Vaginal Infection for Leucorrhoea among Pre-Menopause Women in Group I.

The scores of level of Prevention of Vaginal Infection for Leucorrhoea among Pre-Menopause Women was 7.4 Mean 1.8(SD \pm 0.42) for control group and the experimental mean score was 3.2 were mean ,1.08 (SD \pm 0.54) respectively. The experimental group mean score was lower than the control group mean score. The mean difference was 4.2. The paired 't' value was 10.92 which was significant at P <0.05 level.

Table - 4.5

Comparison of mean and standard deviation of pre and post test scores level of Prevention of Vaginal Infection for Leucorrhoea among Pre-Menopause Women in Group II

(n = 30)

S. No	Group	Mean	Standard deviation	Mean difference	Paired 't' value
1	Control Group	7.5	1.8	4.3	10.53
2	Experimental Group	3.2	1.2		

df=29

P< 0.05

Table - 4.5 shows that the comparison of mean and standard deviation of pre and post test scores level of Prevention of Vaginal Infection for Leucorrhoea among Pre-Menopause Women in Group I.

The scores of level of Prevention of Vaginal Infection for Leucorrhoea among Pre-Menopause Women was 7.5 Mean 1.8(SD \pm 0.42) for control group and the experimental mean score was 1.8 were mean ,1.2 (SD \pm 0.54) respectively. The experimental group mean score was lower than the control group mean score. The mean difference was 4.3. The paired 't' value was 10.53 which was significant at P <0.05 level.

Table - 4.6

Comparison of mean and standard deviation of pre scores level of Prevention of Vaginal Infection for Leucorrhoea among Pre Menopause Women in Control group I Salt water wash and Control Group I Warm water wash

(n = 30)

S. No	Pre Test	Mean	Standard deviation	Mean difference	Unpaired 't' value
1	Control Group - I (Salt water wash)	7.4	1.8	0.1	0.46
2	Control Group - II (Warm water wash)	7.5	1.5		

df=58

P< 0.05

Table - 4.6 reveals that comparison of mean and standard deviation of pre test scores level of Prevention of Vaginal Infection for Leucorrhoea among Pre-Menopause Women in Control group I Salt water wash and Control Group I Warm water wash.

The scores of level of Prevention of Vaginal Infection for Leucorrhoea among Pre-Menopause Women was 7.4 Mean 1.8(SD ± 0.42) for control group I and the Control Group II mean score was 7.5 were mean, 1.8 (SD ±0.54) respectively. The Unpaired 't' value was 0.46 which was significant at P <0.05 level.

Table - 4.7

Comparison of mean and standard deviation of Post test scores level of Prevention of Vaginal Infection for Leucorrhoea among Pre-Menopause Women in Experimental group II Salt water wash and Experimental Group II Warm water wash

S. No	Post Test	Mean	Standard deviation	Mean difference	Unpaired 't' value
1	Experimental Group - II (Salt water wash)	3.2	1.08	0	0.4
2	Experimental Group - II (Warm water wash)	3.2	1.2		

df=58

P< 0.05

Table - 4.7 reveals that comparison of mean and standard deviation of Post test scores level of Prevention of Vaginal Infection for Leucorrhoea among Pre-Menopause Women in Experimental group II Salt water wash and Experimental Group II Warm water wash.

The scores of level of Prevention of Vaginal Infection for Leucorrhoea among Pre-Menopause Women was 3.2 Mean 1.08(SD ± 0.42) for Experimental group I and the Experimental Group II mean score was 3.2 were mean ,1.2 (SD ±0.54) respectively. The Unpaired 't' value was 0.4 which was significant at P <0.05 level.

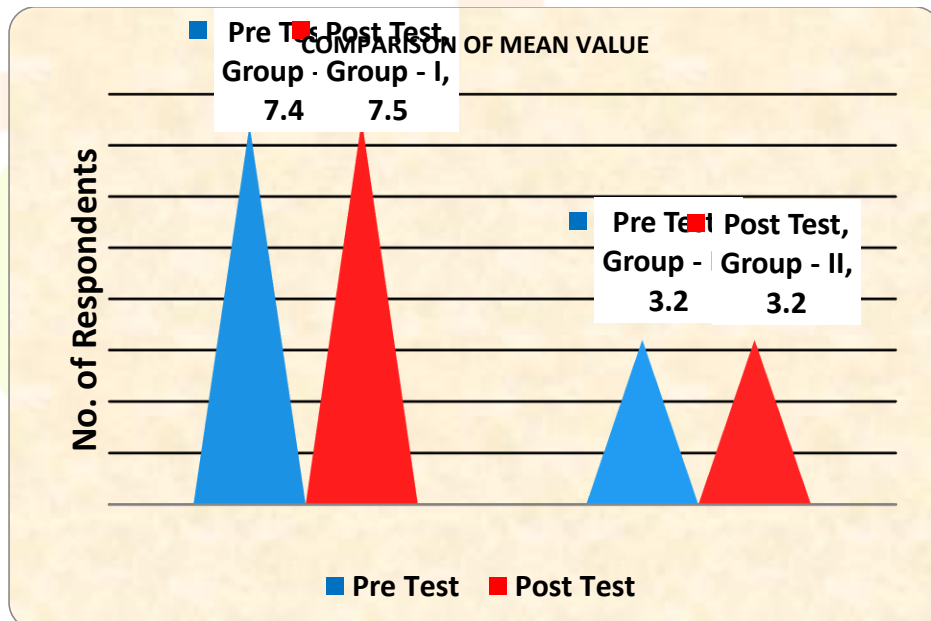


Fig. 4.8: Comparison of mean value of Pre and Post test scores level of Prevention of Vaginal Infection for Leucorrhoea among Pre-Menopause Women in Group I Salt water wash and Group II Warm water wash

SECTION - IV: ASSOCIATION BETWEEN POST TEST SCORES OF SALT WATER WASH AND WARM WATER WASH ON PREVENTION OF VAGINAL INFECTION FOR LEUCORRHEA AMONG PRE-MENOPAUSE WOMEN IN GROUP I

Table - 4.8

Association between post test scores of salt water wash on prevention of vaginal infection for leucorrhoea among pre-menopause women in group I

(n = 30)

Salt Water Wash						
S. No	Demographic Variables	Mild		Moderate		Chi-Square value
		F	%	F	%	
1	Age of Women					8.61 df-3 S**
	a) 41-45 years	5	16.67%	2	6.67%	
	b) 46-50 years	7	23.33%	5	16.67%	
	c) 51-55 years	3	10.00%	5	16.67%	
	d) Above 55 years	0	0.00%	3	10.00%	
2	Educational status					2.12 df-3 NS
	a) Illiterate	1	3.33%	2	6.67%	
	b) Primary education	8	26.67%	8	26.67%	
	c) High school / higher secondary education	3	10.00%	1	3.33%	
	d) Diploma / Graduate	5	16.67%	2	6.67%	
3	Occupation					0.52 df-3 NS
	a) Housewife	2	6.67%	4	13.33%	
	b) Daily wages	1	3.33%	3	10.00%	
	c) Private employee	6	20.00%	8	26.67%	
	d) Govt. employee	2	6.67%	4	13.33%	
4	Religion					0.12 df-2 NS
	a) Hindu	10	33.33%	9	30.00%	
	b) Christian	3	10.00%	3	10.00%	
	c) Muslim	3	10.00%	2	6.67%	
5	Parity					2.91 df-2 NS
	a) No child	0	0.00%	4	13.33%	
	b) One	7	23.33%	6	20.00%	
	c) Two	4	13.33%	2	6.67%	
	d) More than two	3	10.00%	4	13.33%	
6	Mode of delivery					0.22 df-1 NS
	a) Normal delivery	7	23.33%	5	16.67%	
	b) LSCS	9	30.00%	9	30.00%	

Table - 4.8 reveals that the association between post test scores of salt water wash on prevention of vaginal infection for leucorrhoea among pre-menopause women in group I.

The above table show that, among 30 sample with regards in Salt water wash to age 5(16.67%) were 41-45 years,7(23.33%) were 46-50 years,3(10%) were 51-55 years were have mild Pain. 2(6.67%) were 41-45 years, 5 (16.67%) were 46-50 years, 5 (16.67%) were 51-55 years and 3 (10%) were above 55 years were have moderate pain. Chi square value is 8.61. The result shows that the calculated value is greater than the tabulated value (at 0.05 level-significant).

Table - 4.9

Association between post test scores of warm water wash on prevention of vaginal infection for leucorrhoea among pre-menopause women in group II

(n = 30)

S. No	Demographic Variables	Warm Water Wash				Chi-Square value
		Mild		Moderate		
		F	%	F	%	
1	Age of Women					1.55 df-3 NS
	a) 41-45 years	2	6.67%	2	6.67%	
	b) 46-50 years	7	23.33%	6	20.00%	
	c) 51-55 years	5	16.67%	5	16.67%	
	d) Above 55 years	0	0.00%	3	10.00%	
2	Educational status					7.87 df-3 S**
	a) Illiterate	3	10.00%	2	6.67%	
	b) Primary education	6	20.00%	8	26.67%	
	c) High school / higher secondary education	3	10.00%	3	10.00%	
	d) Diploma / Graduate	5	16.67%	0	0.00%	
3	Occupation					1.27 df-3 NS
	a) Housewife	4	13.33%	4	13.33%	
	b) Daily wages	0	0.00%	3	10.00%	
	c) Private employee	7	23.33%	8	26.67%	
	d) Govt. employee	2	6.67%	2	6.67%	
4	Religion					1.11 df-2 NS
	a) Hindu	10	33.33%	11	36.67%	
	b) Christian	3	10.00%	1	3.33%	
	c) Muslim	3	10.00%	2	6.67%	
5	Parity					1.53 df-2 NS
	a) No child	0	0.00%	2	6.67%	
	b) One	7	23.33%	9	30.00%	
	c) Two	4	13.33%	3	10.00%	
	d) More than two	3	10.00%	2	6.67%	
6	Mode of delivery					1.62 df-1 NS
	a) Normal delivery	9	30.00%	5	16.67%	
	b) LSCS	6	20.00%	8	26.67%	

Table - 4.9 reveals that the association between post test scores of warm water wash on prevention of vaginal infection for leucorrhoea among pre-menopause women in group II.

The above table show that, among 30 sample with regards in Warm water wash Regarding Educational status 3(10%) were Illiterate,6(20%) were Primary education, 3(10%) were High school / higher secondary education and 5(16.67%) were Diploma / Graduate were mild pain. 2(6.67%) were Illiterate,8(26.67%) were Primary education, 3(10%) were High school / higher secondary education were in moderate pain. Chi square value is 7.87. The result shows that the calculated value is greater than the tabulated value (at 0.05 level-significant).

SUMMARY

The study was conducted in selected community. The populations for the study were selected by using purposive sampling technique. There were 60 reproductive age women selected for the study with the predetermined criteria for inclusion. The present study was aimed at assessing the effectiveness of salt water wash versus warm water wash on prevention of vaginal infection for leucorrhoea among pre menopause women.

CONCLUSION

Based on the findings of the study the following conclusions are drawn. There was a significant difference between pre and post test scores level of prevention of vaginal infection for leucorrhoea among Pre-Menopause Women in Group I and II. Based on the study the researcher accepted the hypothesis 1 and 2 also that there is significant association between level of Prevention of Vaginal Infection for Leucorrhoea among Pre-Menopause Women with the selected demographic variable of age in experimental group – I (salt water wash) and educational status in experimental group – 2 (warm water wash). So the researcher accept the hypothesis 3. Finally the researcher concluded that the warm water wash was effective and inexpensive more than the salt water wash on prevention of vaginal infection for leucorrhoea among Pre-Menopause Women in Group I and II.

NURSING IMPLICATIONS

The findings of the study have several implications in following field. It can be discussed in four areas namely nursing practice, nursing education, nursing administration and nursing research.

Nursing Practices

- Nurses can implement the practices of Salt Water Wash Versus Warm Water Wash On Prevention Of Vaginal Infection For Leucorrhoea Among Pre Menopause Women.
- Nurses can involve in educating patients with problem in Vaginal Infection and their families on the importance of Salt Water Wash and Warm Water Wash On Prevention Of Vaginal Infection
- Nurses should provide support and motivation to patient with Vaginal Infection to continue Salt Water Wash or Warm Water Wash to their day to life in a routine manner.

Nursing Administration

- Nurse administrators have a main role in planning the policies and procedures to ensure that the student and practicing nurse are well equips with the knowledge and skill.
- The finding of the study will help nurse administrator to plan and organize various in-service programmers like service education, continuing nursing education and workshop on Salt Water Wash Versus Warm Water Wash On Prevention Of Vaginal Infection For Leucorrhoea and its effects onPre Menopause Women.
- Nurse may empower with facilities to use complementary and alternative medicine.
- The nurse administrator can take part in developing protocols and standing order related to Salt Water Wash and Warm Water Wash.

Nursing Education

- Several implications can be drawn from the present study for nursing education.
- The curriculum incorporating the recent trends and demands of the changing society needed for the progress of nursing education.
- Salt water wash and warm water wash can be included in the literature on improving the Prevention Of Vaginal Infection For Leucorrhoea Among Pre Menopause Women.
- Salt Water Wash and Warm Water Wash training program can be included into the nursing curriculum to Prevention Of Vaginal Infection For Leucorrhoea

Nursing Research

- Nurse researchers can conduct studies to verify the scientific rationale or physiology behind the effect of Salt Water Wash and Warm Water Wash to Prevention Of Vaginal Infection
- Research can be conducted to find out the effectiveness of various non pharmacological methods in Prevention Of Vaginal Infection For Leucorrhoea among Pre Menopause Women..

LIMITATION

- Intervention was limited to 3 times daily.
- Study was conducted only on Pre Menopause Women.
- Relatively small sample size
- Study results are limited to Indian population.

RECOMMENDATION FOR THE FUTURE STUDY

- A similar study could be conducted in PHC centers and community setting.
- The study can be replicated on a large sample to generalize the result.
- The comparative study can be conducted with more than one intervention.
- Non-Pharmacological management should be emphasized in nursing curriculum.
- Training programmers for nurse can be given on complementary therapies.

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