

# A STUDY TO ASSESS THE KNOWLEDGE AND PERINEAL HYGIENE PRACTICE OF WOMEN REGARDING PREVENTION OF INFECTION IN GENITAL TRACT AT BANSAL HOSPITAL, MUKTSAR, PUNJAB, INDIA.

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## Abstract

**Background:** Genital Tract Infection is a serious health problem that affects millions of women each year. Infections of the urinary tract are the second most common type of infection in the body. Each year genital tract infection account for about 8.3 million. These infections require careful assessment and management strategies for prevention and treatment. **Objectives:** 1. To assess the knowledge of women regarding prevention of infection in genital tract. 2. To assess the perineal hygiene practice of women regarding prevention of infection in genital tract. 3. To correlate the knowledge of women regarding prevention of infection and perineal hygiene practice with selected demographic variables. **Material and methods:** A cross-sectional design with descriptive approach was used to select 60 women who are suffering from genital tract infection by using Non-probability convenience sampling technique to assess the knowledge and perineal hygiene practice of women regarding prevention of infection in genital tract. **Result:** There was a significant improvement regarding perineal hygiene practice and prevention of genital tract infection. **Conclusion:** The study result shows that perineal hygiene is an effective practice to prevent the genital tract infection.

**Keywords:** Assess, Knowledge, Perineal Hygiene Practice, Married women, Genital Tract Infection.

## I. INTRODUCTION

Urinary tract infections (UTI) are common among the female population. It has been calculated that about one-third of adult women have experienced an episode of symptomatic cystitis at least once. It is also common for these episodes to recur. If predisposing factors are not identified and removed, UTI can lead to more serious consequences, in particular kidney damage and renal failure.<sup>1</sup> On the basis of *types of urinary tract infection* the symptoms of lower urinary tract infection are discomfort on urination, increased frequency of urination, urgency, and a change in the smell of the urine. Upper urinary tract infection symptoms are a high temperature, pain in the loin, nausea, vomiting, and rigors.<sup>2</sup> Many women seek care for vulvar, vaginal, or pelvic complaints. Primary care providers should possess a solid understanding of the differential diagnosis and treatment of gynecologic infections. Many infections in the reproductive tract are sexually transmitted, whereas other common infections are attributable to an overgrowth of the normally present bacteria or yeast in the vagina. Presenting symptoms and signs are helpful in determining the source of infection.<sup>3</sup> The most frequent symptoms were vaginal discharge, change in discharge, malodor, and pruritus. Clinical signs and symptoms with office-based tests and microscopy improved the accuracy of diagnosis.<sup>4</sup> The Affirm VPIII test is a more sensitive diagnostic test for detection and identification of symptomatic vaginitis/vaginosis than conventional clinical examination and wet mount test.<sup>5</sup> overall prevalence of Lower genital tract infections among apparently healthy looking pregnant women is 40-54%. Specific pathogens that were isolated from the vagina and/or cervix of asymptomatic pregnant women include: *C. albicans* (14-42%), *T. vaginalis* (11-20%), *C. trachomatis* (7-31%), *N. gonorrhoea* (0.5-14%) and group B streptococcus (4-25%). Untreated, genital tract infections in pregnant women may result in: foetal loss, preterm labour, preterm birth, premature rupture of the membranes, low birthweight, eye and lung damage in the newborn.<sup>6</sup> Sexually transmitted infections will need treatment, and contacts will need to be traced.<sup>2</sup> The prevalence of bacterial vaginosis was 29.3% (326/1111). upper genital tract infection developed in 12/142 (8.5%) women allocated to metronidazole and 21/131 (16.0%) women randomised to placebo, a difference of 7.6% (95% confidence intervals -15.4 to +0.2%; relative risk 0.53, 0.27 to 1.03,  $P = 0.055$ ). The effect of prophylaxis was similar when the analysis was restricted to women

receiving the allocated treatment and with complete follow up.<sup>7</sup> Several drugs are active against *C. trachomatis* including rifampin, tetracyclines, macrolides, sulfonamides, some fluoroquinolones, and clindamycin. Rifampin is highly active in vitro, but resistance to this drug can be readily developed. Thus, rifampin is not used to treat human chlamydial infections. *C. trachomatis* is also susceptible to sulfonamides, but they are not used for genital chlamydial infections. Currently, the US CDC recommends treatment with azithromycin (1 g, single dose taken orally) or doxycycline (100 mg, twice per day for seven days).<sup>8</sup> Historically, puerperal fever secondary to genital tract infection has been a leading cause of maternal mortality following childbirth and/or abortion. With the advent of improved hygienic practices and the introduction of antibiotics, morbidity and mortality from puerperal infection has decreased significantly and infection is no longer the leading cause of maternal mortality.<sup>9</sup> One study findings showed in 2001 that 61.66% of the girls had an average knowledge regarding menstruation on menstrual hygiene and 87.66% of the girls followed correct practice.<sup>10</sup>

## STATEMENT OF THE PROBLEM

A study to assess the knowledge and perineal hygiene practice of women regarding prevention of infection in genital tract at Bansal Hospital, Muktsar, Punjab, India.

### OBJECTIVES:

1. To assess the knowledge of women regarding prevention of infection in genital tract.
2. To assess the perineal hygiene practice of women regarding prevention of infection in genital tract.
3. To correlate the knowledge of women regarding prevention of infection and perineal hygiene practice with selected demographic variables such as age of women, education, occupation, religion, economical status, area of residence, family income.

### Materials and Methods

**Research Approach:** Descriptive research approach was used.

**Research Design:** A cross-sectional design was adopted.

**Setting of the Study:** The study was conducted in Bansal Hospital, Bathinda, Punjab.

**Target Population:** The target population is the aggregate of cases about which the researcher would like to generalize. In the present study, it includes women who were having genital tract infection.

**Sample:** The sample for the present study constitutes 60 women who are suffering from genital tract infection.

**Sampling technique:** Non-probability convenience sampling technique was used to select the samples for this study.

### Development of tool for data collection:

Section I: Sample characteristics of infected women.

Section II: To assess the knowledge of women regarding prevention of infection in genital tract.

Section III: To assess the perineal hygiene practice of women regarding prevention of infection in genital tract. Section IV: To correlate knowledge and perineal hygiene practice of women regarding prevention of infection in genital tract.

Section V: To correlate the knowledge score of women regarding prevention of infection in genital tract with selected demographic variables such as age of the women, religion, education, occupation of the women residence, family income.

Section VI: To correlate the hygiene practice score of women regarding prevention of infection in genital tract with selected demographic variable such as age of the women religion, education, occupation of the women residence, family income.

Section I: Sample characteristics of infected women

Table – 1 Socio-demographic profile of the sample

N=60

Characteristics		(f)	Percentage (%)
Age (in years)	15-25	12	20%

	25-35	31	51.66%
	35-45	15	25%
	>45	2	3.33%
Religion	Hindu	32	53.33%
	Sikh	27	45%
	Christian	1	1.7%
Education	Private	1	1.66%
	Primary	3	5%
	Middle Matric	25	41.66%
	Graduate	21	35%
	Post Graduate	7	11.66%
Occupation	Working	26	43.53%
	Non Working	34	56.66%
Area of Residence	Rural	34	56.66%
	Urban	26	43.33%
Economical status	<5000	16	25.
	5001-10000	37	26.66
	10001-15000	14	61.66

### Section II: To assess the knowledge of women regarding prevention of infection in genital tract

**Table -2: Knowledge score of women regarding prevention of infection in genital tract**

N=60

Level of knowledge	Knowledge score	
	(f)	Percentage (%)
Excellent $\geq 75\%$ ( $\geq 30$ )	13	21.6%
Good 65-74% (26-29)	30	50%
Average 45-64 (18-25)	15	25%
Below average $\leq 44$ ( $\leq 17$ )	2	3.4%

Maximum Score = 40

Minimum Score = 00

Table 2 and figure 2 depicts that 50% of the women were having good knowledge followed by average knowledge (25%), excellent knowledge (21.6%) and 3.4% were having below average knowledge towards prevention of infection in genital tract.

Hence, it was concluded majority of women were with good knowledge towards prevention of infection in genital tract.

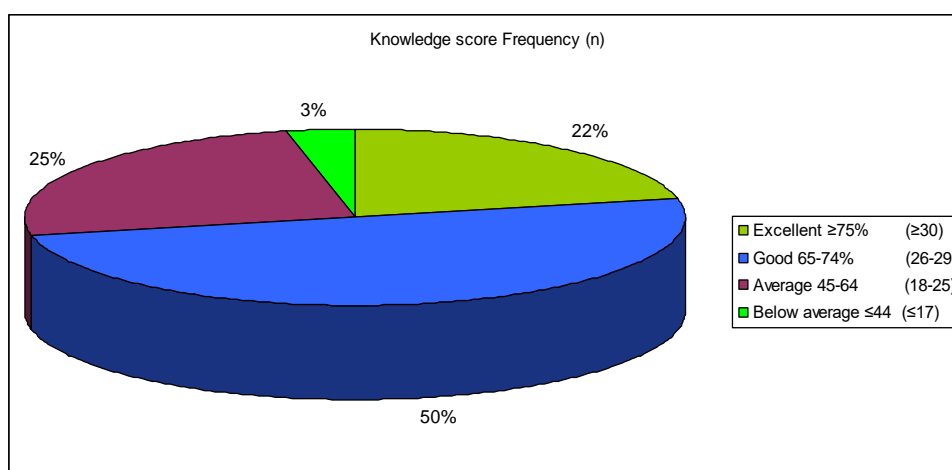


Figure No. 2: Pie diagram showing knowledge score of women regarding prevention of infection in genital tract.

**Table -3 Mean score and mean percentage of knowledge of women regarding prevention of infection in genital tract according to different area of knowledge.**

Areas of Knowledge questionnaire	Knowledge		
	Maximum Score	Mean Score	Mean %
Causes	7	4.7	67.1 %
Sign and symptoms	6	4.0	66.6%
Treatment and prevention	11	7.4	67.2%
Hygiene practice	16	10.7	66.8%
Total	40	26.8%	67%

Maximum Score =40

Minimum Score = 00

Table 3 and figure 3 reveals the mean percentage of knowledge score according to different areas towards prevention of infection in genital tract. The mean percentage of knowledge score was highest (67.2%) in treatment and prevention and 66.8% in hygiene practice area, followed by (67.11%) knowledge about causes, mean score (66.6%) was obtain in the area of sign and symptoms and overall knowledge score was (67%) in women.

Thus, it can be concluded that women had maximum knowledge about treatment and prevention and least knowledge towards causes. Overall women good knowledge regarding prevention of infection in genital tract

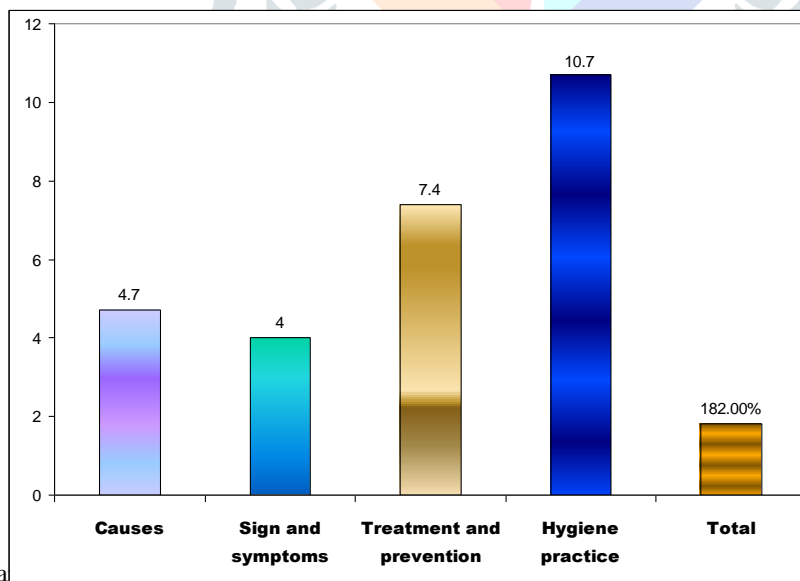


Figure No. 3 Bar chart showing mean score of women regarding prevention of infection in genital tract according to different area of knowledge. (n=60)

**Section III : To assess the perineal hygiene practice of women regarding prevention of infection in genital tract**

**Table 4: Percentage of perineal hygiene practice score of women regarding prevention of infection in genital tract**

N=60

Practice Level (score)	Practice Score	
	Frequency (n)	%
Unsatisfactory $\geq 80\%$ ( $\geq 32\%$ )	4	6
Satisfactory $\leq 60-79\%$ ( $\leq 31$ )	56	94

Maximum Score = 40

Minimum Score = 00

Table 4 and figure 4 reveals the difference in the practice score of women regarding prevention of infection in genital tract.

Majority of them (94%) were had satisfactory practice where as only 6% women had unsatisfactory practice.

Thus, it can be concluded that maximum women had satisfactory practice regarding prevention of infection in genital tract.

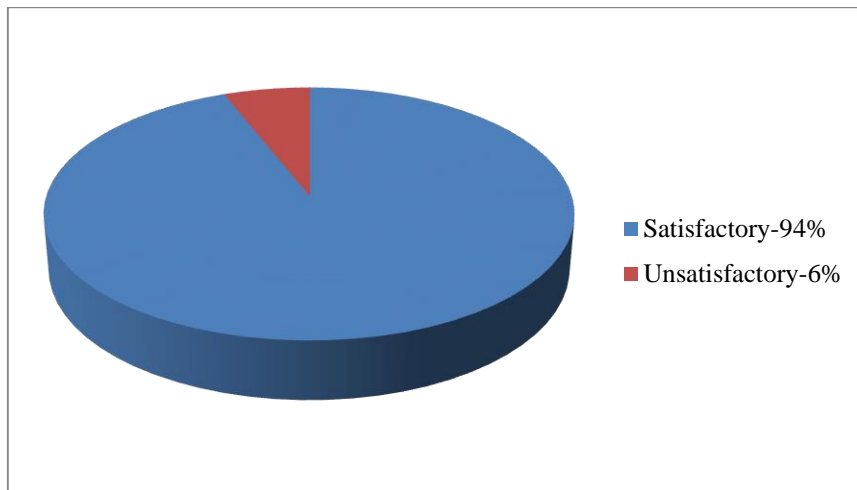


Figure No : 4 Percentage of perineal hygiene practice score of women regarding prevention of infection in genital tract. (n=60)

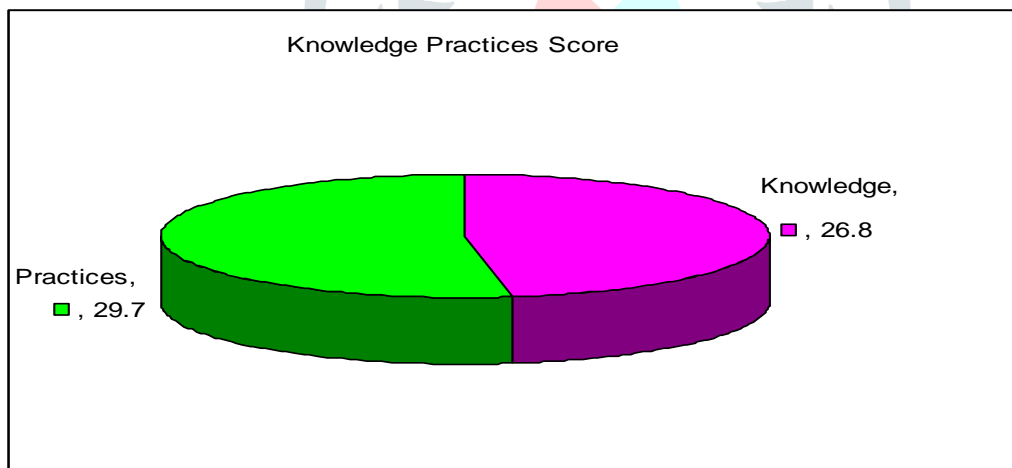


Fig -5: Correlation between knowledge and perineal hygiene practice of women regarding prevention of infection in genital tract. (n=60)

Section V: To correlate the knowledge score of women regarding prevention of infection in genital tract with selected variables such as age of the women religion, education, occupation of the women, residence, family income.

Table – 6 Comparative mean knowledge score of women regarding prevention of infection in genital tract according to age.

N=60

Age in Years	N	Knowledge Score			
		Mean	SD	F	P value
15-25 year	12	18.5	0.8	1.713NS	0.183
25-35	31	16.7	2.8		
35-45	15	17.3	2.1		
>45	2	16.4	2.39		

Maximum Score = 40

Minimum Score = 00

Table 6 depicts that the mean knowledge score was highest (18.5) in the women who were belong to age group 15-25 years, (18.5), 25-35 years (16.7) 35-45 years (17.3), and >45 years (16.4) respectively.

Based on ANOVA the difference in the mean knowledge score was found statistically non significant.

Hence, it can be concluded that age had no influenced on the knowledge regarding prevention of infection in genital tract.

**Table -7 Comparative mean knowledge score of women regarding prevention of infection in genital tract according to religion.** N=60

Religion	N	Knowledge score			
		Mean	SD	F	P value
Hindu	32	17.38	2.9	239 <sup>NS</sup>	0.23
Sikh	27	17.25	2.4		
Christian	1	21.45	2.85		

Maximum Score = 40

Minimum Score = 00

Table 7 depicts that the mean knowledge score was highest (21.45) in the women who belonged to Christian religion, followed by Hindu (17.38) and Sikh (17.25) respectively;

Based on ANOVA, the difference in the mean knowledge score was found statistically non significant.

Hence, it can be concluded that religion had no influence on the knowledge regarding prevention of infection in genital tract.

**Table -8: Comparative mean knowledge score of women regarding prevention of infection in genital tract according to education.** N=60

Education	N	Knowledge score			
		Mean	SD	F	P value
Illiterate	01	12.0	6.7	2.41 <sup>S</sup>	0.03
Primary education	03	16.0	4.1		
Middle education	03	21.2	2.4		
Senior secondary	25	21.1	3.7		
Graduate	21	29.9	5.8		
Post graduate	7	25.4	5.2		

Maximum Score = 40

S = Significant at 0.05 level

Minimum Score = 00

Table 8 shows that the mean knowledge score was highest (29.9) in women who were educated up to graduation, post graduate,(25.4), senior secondary (21.1), middle education (21.2) and primary (16.0) respectively.

Based on 'ANOVA' test the difference in the mean knowledge score of women was found statistically non-significant regarding prevention of infection in genital tract.

Hence, it can be concluded that educational level of the women had significant impact on the knowledge regarding prevention of infection in genital tract. As the educational level increases, level of knowledge also increases.

**Table -9: Comparative mean knowledge score of women regarding prevention of infection in genital tract according to occupation.**

N=60

Occupation	N	Knowledge score			
		Mean	SD	F	P value
Working	4	20.4	2.07	2.48 S	0.01
Non working	56	16.9	2.68		

Maximum Score = 40

Minimum Score = 00

Table 9 indicates that the mean knowledge score was highest (20.4) in the women who were doing work where as non working had low knowledge (16.9).

Based on 't' test, the difference in mean knowledge of college women was found statistically significant at  $p < 0.01$  level.

Hence, it can be concluded that occupation of women had influence on knowledge regarding prevention of infection in genital tract.

**Table -10: Comparative mean knowledge score of women regarding prevention of infection in genital tract according to residential status.**

N=60

Residential status	N	Knowledge score			
		Mean	SD	F	P value
Rural	34	15.7	2.43	2.84 <sup>S</sup>	0.01
Urban	26	17.6	2.71		

Maximum Score = 40

Minimum Score = 00

Table 10 shows that women who belonged to urban area had maximum mean knowledge score (17.6), followed by rural women (15.7)

Based on 't' test, the difference in the mean knowledge score of women was found statistically significant regarding prevention of infection in genital tract.

Hence, it can be concluded that residence of the women had significant impact on the knowledge regarding prevention of infection in genital tract.



**Table -11: Comparative mean knowledge score of women regarding prevention of infection in genital tract according to economical status.**

N=60

Economical status	N	<u>Knowledge score</u>			
		Mean	SD	F	P value
≤5000	16	17.5	2.43	0.92 <sup>NS</sup>	0.46
5001-10000	37	16.7	2.84		
>10,000	7	17.4	3.91		

Maximum Score =40

Minimum Score =00

Table 11 indicates that mean knowledge score was highest (17.5) in the women who were belong to economical status Rs. <5000, followed by family income group Rs. >10,1000 (17.4) and minimum family income group Rs. 5000-10000.

Based on 'ANOVA' test, the difference in the mean knowledge score of women was found statistically non significant regarding prevention of infection in genital tract.

Hence, it can be concluded that family monthly income had no influence on knowledge of women's regarding prevention of infection in genital tract.

**Table VI: To correlate the perineal hygiene practice score of women regarding prevention of infection in genital tract with selected variables such as age of the women, religion, education, occupation of the women, residence, economical status.**

**Table -12: Comparative mean perineal hygiene practice score of women regarding prevention of infection in genital tract according to age.**

N=60

Age in Years	N	<u>Practice score</u>			
		Mean	SD	F	P value
15-25 years	12	21.5	0.85	1.85NS	0.274
25-35 years	31	18.6	2.20		
34-45	15	20.2	2.87		
>45	2	19.7	2.29		

Maximum Score = 45

Minimum Score = 00

Table 12 depicts that the mean practice score was highest (21.5) in the women who were belong to age group 15-25 years, followed by 35-45 years (20.2), >45 years (19.7), 25-35 years (18.6) respectively.

Based on ANVOA, the difference in the mean practice score was found statistically non significant.

Hence, it can be concluded that age had no influenced on the practice regarding prevention of infection in genital tract.



**Table No. 13**Comparative mean perineal hygiene practice score of women regarding prevention of infection in genital tract according to religion.

N=60

Religion	N	Practice score			
		Mean	SD	F	P value
Hindu	32	19.45	2.41	8.61NS	0.63
Sikh	27	18.21	4.94		
Christian	01	19.82	2.95		

Maximum Score = 45

Minimum Score = 00

Table 13 depicts that the mean perineal hygiene practice score was highest (19.82) in women who belonged to Christian religion, followed by Hindu (19.45) and Sikh (18.2) respectively.

Based on ANOVA the difference in the mean practice score was found statistically non significant.

Hence, it can be concluded that religion had no influenced on the practice regarding prevention of infection in genital tract.

**Table -14: Comparative mean perineal hygiene practice score of women regarding prevention of infection in genital tract according to education.**

N=60

Education	N	Practice score			
		Mean	SD	F	P value
Illiterate	01	17.7	3.0	6.412 <sup>S</sup>	0.02
Primary education	03	20.3	3.2		
Middle education	03	18.5	1.37		
Secondary education	25	18.4	2.51		
Graduate	21	20.7	4.21		
Post graduate	7	19.6	3.41		

Maximum Score = 45

Minimum Score = 00

Table 18 shows that the mean practice score was highest (20.7) in women who were educated up to graduation and above, followed by primary (20.3) secondary (18.4) and illiterate (17.7) respectively.

Based on 'ANOVA' test the difference in the mean practice score of women found statistically significant regarding prevention of infection in genital tract.

Hence, it can be concluded that education level of the women had significant impact on the practice regarding prevention of infection in genital tract.

**Table -15: Comparative mean perineal hygiene practice score of women regarding prevention of infection in genital tract according to occupation.**

N= 60

Occupation	N	Practice score			
		Mean	SD	F	P value
Working	4	21.3	2.15	3.43 <sup>S</sup>	0.01
Non working	56	18.5	2.86		

Maximum Score = 45

Minimum Score = 00

Table 15 indicates that the mean practice score was highest (21.3) in the women who were doing work where as non working had low practice (18.5)

Based on 't' test, the difference in mean practice of women was found statistically significant at  $p < 0.01$  level.

Hence, it can be concluded that occupation of women had influence on practice regarding prevention of infection in genital tract.

**Table -16: Comparative mean hygiene practice score of women regarding prevention of infection in genital tract according to residential status.**

N=60

Residential status	N	Practice score			
		Mean	SD	F	P value
Urban	34	17.44	2.36	3.94 <sup>S</sup>	0.01**
Rural	26	19.74	2.46		

Maximum Score = 45

Minimum Score = 00

Table 16 shows that women who belonged to urban area had maximum mean practice score (17.44), followed by rural women (19.74).

Based on 't' test, the differences in the mean practice score of women was found statistically significant regarding prevention of infection in genital tract.

Hence, it can be concluded that residence of the women had significant impact on the practice regarding prevention of infection in genital tract.

**Table -17: Comparative mean pernieal hygiene practice score of women regarding prevention of infection in genital tract according to economical status.**

N = 60

Economical Status	N	Practice score			
		Mean	SD	F	P value
≤5000	16	18.8	2.51	2.11 <sup>NS</sup>	0.35
5001-10000	37	18.1	1.44		
>10,000	7	19.4	2.41		

Maximum Score = 45

Minimum Score = 00

Table 17 indicates that the mean practice score was highest (19.4) in the women who were belong to family income group Rs. >10000, followed by family income group Rs. >5000(18.8), family income group Rs. 5000-10000 (18.1) are minimum in family income group.

Based on 'ANOVA' test, the difference in the mean practice score of women found statistically non significant regarding prevention of infection in genital tract.

Hence, it can be concluded that family monthly income had no influence on practice of women regarding prevention of infection in genital tract.

#### Recommendations for further study:

On the basis of the findings of the study the following recommendations have been made:

1. Similar study can be undertaken with a large sample to generalize the findings.
2. The study can be conducted in different settings, private hospitals and primary health care centers with similar facilities.
3. A longitudinal study conducted to examine the effects of any intervention on reduction during Menstruation.
4. Research study for irregular follow –ups needed to be mounted.

#### LIMITATIONS:

1. The sample size was limited to 60 women in genital tract infection.
2. The study was confined to a small sample selected by non-probability convenience sampling technique.
3. The study setting was limited to women in genital tract infection who are admitted in Bansal Hospital, Muktsar.

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