

A Retrospective Study to Assess the Clinic-Diagnostic Evaluation of Causes of Infertility and its Treatment Outcome among Women with Infertility Who Had Visited People's Hospital from 2015-2017

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ABSTRACT

BACKGROUND: Infertility refers to an inability to conceive after having regular unprotected sex. Infertility can also refer to the biological inability of an individual to contribute to conception or to female who cannot carry a pregnancy to full term. Many more couples, however, experience involuntary childlessness for at least one year estimates range from 12% to 28%. Male infertility is responsible for 20–30% of infertility cases, while 20–35% is due to female infertility, and 25–40% is due to combined problems in both parts. In 10–20% of cases, no cause is found. **AIM:** The aim of the study is to find out the treatment outcome of the infertility.

OBJECTIVES: To assess the socio-demographics variables of infertile women. To find out the causes of infertility among infertile women. To enlist the diagnostic procedure prescribed by obstetrician to infertile women. To analyse the outcome of the prescribed treatment for infertility. To find out association between causes of infertility and their treatment outcome. **DELIMITATIONS-** sample size is infertile women who visited only People's Hospital from 2015-2017. **ASSUMPTIONS-** if causes of infertility diagnosed accurately treatment will be effective. Elder age women are more prone to develop infertility as compared to younger age women.

METHODS AND MATERIAL- RESEARCH APPROACH- A Descriptive research approach was considered the best to assess the infertility treatment. **RESEARCH DESIGN-** In the present study, the investigator selected the Non-Experimental Retrospective Descriptive research design as most suitable for the study.

SETTING OF THE STUDY- In this study, setting refers to the area where the study is conducted. The present study was conducted in People's Hospital Medical Record Department, Bhopal (M.P.) **POPULATION-** In the present study, the target population in comprise of the infertile women of the Bhopal City. **Accessible Population-** In this study, the assessable population is infertile women who had visited in People's Hospital during 2015-2017. **Sample-** In the present study records of infertile women who had visited in People's Hospital during 2015-2017. **Sample Size** In the present study sample size is record of infertile women who had visited in People's Hospital during 2015-2017. **Sampling Technique-** Complete enumeration technique is used for this study. **Inclusion Criteria** Women who had attended IPD & OPD department of People's Hospital during the last two year 2015-2017. **Exclusion Criteria** Women who had not attended IPD & OPD department of People's Hospital during the last two year 2015-2017. Women who visited the People's Hospital but didn't continue the treatment.

ETHICS CONSIDERATION The issues related to ethical consideration were discussed with institutional ethical committee (IEC) members of People's college of nursing and research centre (PCN&RC). (a) Ethics clearance certificate was obtained from the IEC (Institutional Ethics Committee) of PCN & RC Bhanpur, Bhopal. (b) Written permission was obtained from concerned authority prior to data collection. (c) Subject's privacy & confidentiality of data were guarded. (d) Ethical guideline had followed throughout the study.

DATA COLLECTION PROCEDURE Permission was obtained from the concern authority prior to data collection. For the data collection we had gone to medical record section and analyse the files of infertile females (18-40yrs) who had visited the IPD & OPD department of gynecology during the last two years 1st January 2015-31st December 2017 People's Hospital. **PLAN FOR DATA ANALYSIS** The data will be analyzed by descriptive and inferential statistics method. • The plan for data analysis were followed: • For the

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analysis of demographical data frequencies and percentage is calculated. Chi-square test (χ^2) is used to find out the association and findings will be documented in forms of tables and graphs. **RESULT- PRESENTATION OF DATA**The analyzed data has the organized and presented in the following sections:- Section-I: It deals with description of socio-demographics characteristics of the infertile women. Section –II: It deals with analysis of causes of infertility women who had visited People’s Hospital during 2015-2017. Section-III: It deals with analysis of treatment of infertility women who had visited People’s Hospital during 2015-2017 Section –IV: It deals with analysis of infertility and their treatment outcome.

SECTION-I

DESCRIPTION OF SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE INFERTILITY WOMEN

TABLE 4.1.1 SHOWS FREQUENCY DISTRIBUTION ACCORDING TO AGE

Age	2015	%	Cumulative frequency	2016	%	Cumulative frequency	2017	%	Cumulative frequency
18-26 yrs	22	44.89	44.89	19	44.19	44.19	33	63.46	63.46
27-35 yrs	20	40.82	85.79	21	48.84	93.03	15	28.85	92.31
35-43 yrs	7	14.29	100	3	6.97	100	4	7.69	100
Total	49	100		43	100		52	100	

Table 4.1.1 – Regarding the age of participants indicated that majority (44.89)22 belonged to 18-26yrs of age, (40.82)20 belonged to 27-35yrs of age, (14.29)7 belonged to 35-43yrs of age in year 2015.

Further on year 2016 majority (44.19)19 belonged to 18-26yrs of age, (48.84)21 belonged to 27-35yrs of age, (6.97)3 belonged to 35-43yrs of age in year 2016.

Further on year 2017 majority (63.46)33 belonged to 18-26yrs of age, (28.85)15 belonged to 27-35yrs of age, (7.69)4 belonged to 35-43yrs of age in year 2017.

Fig 4.1.2 FREQUENCY AND PERCENTAGE DISTRIBUTION OF PARTICIPANT ACCORDING TO RELIGION ACCORDING TO RELIGION

Religion	2015	%	Cumulative frequency	2016	%	Cumulative frequency	2017	%	Cumulative frequency
Hindu	23	52.28	52.28	44	91.67	91.67	50	96.15	96.15
Muslim	16	36.36	88.64	3	6.25	97.25	2	3.85	100
Sikh	4	9.09	97.73	0	0		0	0	
Christian	1	2.27	100	1	2.08	100	0	0	
Total	44	100		48	100		52	100	

Table 4.1.2 – Regarding the religion of participants indicate that majority (52.28)23 belonged to Hindu, (36.36)16 belonged to Muslim, (9.09)4 belonged to Sikh, (2.27)1 belonged to Christian in year 2015.

Further on year 2016 majority (91.67)44 belonged to Hindu, (6.25)3 belonged to Muslim, (0)0 belonged to Sikh, (2.08)1 belonged to Christian in year 2016.

Further on year 2017 majority (96.15)50 belonged to Hindu, (3.85)2 belonged to Muslim, (0)0 belonged to Sikh, (0)0 belonged to Christian in year 2017.

TABLE 4.1.3 FREQUENCY AND PERCENTAGE DISTRIBUTION OF PARTICIPANTS ACCORDING TO TYPE OF INFERTILITY ACCORDING TO TYPE OF INFERTILITY

Type of Infertility	2015	%	Cumulative frequency	2016	%	Cumulative frequency	2017	%	Cumulative frequency
Primary Infertility	30	68.19	68.19	42	87.5	87.5	47	90.38	90.38
Secondary Infertility	14	31.81	100	6	12.5	100	5	9.62	100
Total	44	100		48	100		52	100	

Table -4.1.3 – Regarding the type of infertility of participants indicates that majority (68.19)30 belonged to primary infertility, (31.81)14 belonged to secondary infertility in year 2015.

Further on year 2016 majority (87.5)42 belonged to primary infertility, (12.5)6 belonged secondary infertility.

Further on year 2017 majority (90.38)47 belonged to primary infertility, (9.62)5 belonged to secondary infertility.

SECTION-II

ANALYSIS OF CAUSES OF INFERTILITY WOMEN WHO HAD VISITED PEOPLE'S HOSPITAL DURING 2015-2017.

TABLE 4.2.1 SHOWS FREQUENCY AND PERCENTAGE DISTRIBUTION OF PARTICIPANTS ACCORDING TO CAUSES OF INFERTILITY

Causes	2015	%	Cumulative frequency	2016	%	Cumulative frequency	2017	%	Cumulative frequency
Menstrual Irregularities	19	44.19	44.19	17	42.5	42.5	17	31.49	31.49
White Discharge	8	18.60	62.79	10	25	67.5	7	12.96	44.45
Mild Erosion	0	0	0	1	2.5	70	5	9.26	53.71
Abdominal Pain	1	2.33	65.12	4	10	80	4	7.42	61.13
Abortion	0	0	0	1	2.5	82.5	0	0	0
Pain Bleeding	0	0	0	0	0	0	2	3.70	64.83
Tumor	1	2.33	67.45	1	2.5	85	0	0	0
Premanpause	0	0	0	0	0	0	2	3.70	68.53
Fibroid	4	9.30	76.75	3	7.5	92.5	0	0	0
Hyperthyroidism	2	4.65	81.4	0	0	0	2	3.70	72.23
Obesity	8	18.60	100	3	7.5	100	5	9.26	81.49
Amenorrhea	0	0	0	0	0	0	1	1.85	83.34
Vaginal Bleeding	0	0	0	0	0	0	7	12.96	96.3
Ovary Endocrine	0	0	0	0	0	0	1	1.85	98.15
Hypothyroidism	0	0	0	0	0	0	1	1.85	100
Total	43	100	100	40	100	100	54	100	

Description – Regarding the causes of infertility indicate that majority (44.19)19 had menstrual irregularities, (62.79)8 had white discharge, (2.33)1 had abdominal pain, (2.33)1 had tumor, (4.65)2 had fibroid, (4.65)2 had hyperthyroidism, (18.60)8 had obesity in year 2015.

In year 2016 causes of infertility indicated that majority (42.5)17 had menstrual irregularities, (25)10 had white discharge, (2.5)1 had mild erosion, (10)4 had abdominal pain, (2.5)1 had abortion, (2.5)1 had tumor, (7.5)3 had fibroid, (7.5)3 belonged to obesity.

In year 2017 causes of infertility indicated 2017 majority (31.49)17 had menstrual irregularities,, (12.96)7 had white discharge, (9.26)5 had mild erosion, (7.42)4 had abdominal pain, (3.70)2 had pain bleeding, (3.70)2 had premanpause, (3.70)2 had hyperthyroidism, (9.26)5 had obesity, (1.85)1 had amenorrhea, (12.96)7 had vaginal bleeding, (1.85)1 had ovary endocrine, (1.85)1 had hypothyroidism in year 2017.

SECTION –III

ANALYSIS OF TREATMENT OF INFERTILITY AMONG THE WOMEN WHO HAD VISITED PEOPLE'S HOSPITAL DURING 2015-2017.

Table 4.3.1 Frequency and percentage Distribution of Participants According To Treatment of Infertility

Treatment	2015	%	2016	%	2017	%
Conservative Treatment	19	42.24	15	31.25	17	32.69
Hysteroscopy+Laprosopy	18	40	23	47.92	26	50
Pteryinum Operation	1	2.22	1	2.08	0	0
Plan Hcg On Next Cycle	1	2.22	2	4.17	2	3.85
Fab-B Kit	1	2.22	3	6.25	0	0
Endometrial Biopsy	1	2.22	2	4.17	0	0
Hysterosalpinography	2	4.44	1	2.08	1	1.92
Follicular Study In NextCycle	2	4.44	1	2.08	4	7.69
Hormonal Evaluation	0	0	0	0	2	3.85
Total	45	100	48	100	52	100

Table 4.3.1- Regarding the treatment of infertility revealed that majority 19(42.24) had received conservative treatment, (40)18 had received hysteroscopy+laparoscopy, (2.22)1 had received pteryinum operation , (2.22)1 had received plan HCG on next cycle, 2.22)1 had received FAB-B kit, 2.22)1 had received endometrial biopsy, (44.4)2 had received hysterosalpinography, (44.4)2 had received follicular study in next cycle.

Further in year 2016 majority (31.25)15 had received conservative treatment, (47.92)23 had received hysteroscopy+laparoscopy, (2.08)1 had received pteryinum operation, (4.17)2 had received plan HCG on next cycle, (6.25)3 had received FAB-B kit, (4.17)2 had received endometrial biopsy, (2.08)1 had received hysterosalpinography, (2.08)1 had received follicular study in next cycle.

Further in year 2017 majority (32.69)17 had received conservative treatment, (50)26 had received hysteroscopy+laparoscopy, (3.85)2 had received plan HCG on next cycle, (1.92)1 had received hysterosalpinography, (7.69)4 had received follicular study in next cycle, (3.85)2 had received hormonal evaluation.

SECTION-IV

ANALYSIS BETWEEN CAUSES OF INFERTILITY AND THEIR TREATMENT OUTCOME

2015 Treatments-2015 causes

S. No		Abdominal Pain	Fibroid	Hyperthyroidism	Obesity	Tumor	Menstrual Irregularities	White Discharge	Chi square value	df	P value
1	Conservative Treatment	-	-	-	-	-	-	19	138.170	49	.000*
2	Endometrial Biopsy	10	-	-	-	1	-	-			
3	Fab-B Kit	-	-	-	-	1	-	-			
4	Follicular Study In Next Cycle	1	-	-	-	1	-	-			
5	Hysterosalpinography	-	-	-	-	2	-	-			
6	Hysteroscopy+LaProscopy	-	1	8	4	4	1	8			
7	Pteryinum Operation	-	-	-	-	1	-	-			
8	Plan Hcg On Next Cycle	-	-	-	-	-	-	-			
9	Hormonal Evaluation	-	-	-	-	-	-	-			

Table – 4.1.1 The chi square value indicated that there is significant association between causes of infertility and their treatment outcomes

***P value is Significant at P <0.05 chi square-(138.170) p value-(0.000)**

2015 Treatments -2016 causes

S. No.		Abdominal Pain	Abortion	Fibroid	Mild Erosion	Obesity	Tumor	Menstrual Irregularities	White Discharge	Chi Square Value	Df	P Value
1	Conservative Treatment	10	-	-	-	-	-	-	-	152.653 ^a	56	.000*
2	Endometrial Biopsy	-	-	-	-	-	-	-	19			
3	Fab-B Kit	-	-	-	-	-	1	-	-			
4	Follicular Study In Next Cycle	-	-	-	-	-	1	-	-			
5	Hysterosalpinography	2	-	-	-	-	-	-	-			
6	Hysteroscopy Y+LaprosCOPY	2	-	-	-	-	-	-	-			
7	Pteryinum Operation	-	4	-	3	1	1	1	8			
8	Plan Hcg On Next Cycle	-	-	1	-	-	-	-	-			
9	Hormonal Evaluation	-	-	-	-	-	-	-	-			

Table – 4.1.2 The chi square value indicated that there is significant association between causes of infertility and their treatment outcomes

***P value is Significant at P <0.05 chi square-(152.653) p value-(0.000)**

2015 Treatments -2017 causes

S. No.		Abdominal Pain	Amennorrhea	Hyperthyroidism	Hypothyroidism	Mild Erosion	Obesity	Ovary Endocrine	Pain Bleeding	Premanpause	Vaginal Bleeding	Menstural Irregularities	White Discharge	Chi Square Value	Df	P Value
1	Conservative Treatment	-	1	-	1	-	-	1	-	-	7	-	-	207.654	77	.000*
2	Endometrial Biopsy	-	-	-	-	-	-	-	-	-	-	17	2			
3	Fab-B Kit	-	-	-	-	-	1	-	-	-	-	-	-			
4	Follicular Study In Next Cycle	-	-	1	-	-	-	-	-	-	-	-	-			
5	Hysterosalpinography	-	-	-	-	-	2	-	-	-	-	-	-			
6	Hysteroscop Y+Laprosop Y	-	-	-	-	-	2	-	-	-	-	-	-			
7	Pteryinum Operation	4	-	-	-	5	-	-	2	2	-	-	5			
8	Plan Hcg On Next Cycle	-	-	1	-	-	-	-	-	-	-	-	-			
9	Hormonal Evaluation	-	-	-	-	-	-	-	-	-	-	-	-			

Table – 4.1.3The chi square value indicated that there is significant association between causes of infertility and their treatment outcomes

*P value is Significant at P <0.05 chi square-(207.654) p value-(0.000)

2016 Treatments -2015 causes

S. No.		Abdominal Pain	Fibroid	Hyperthyroidism	Obesity	Tumor	Menstural Irregularities	White Discharge	Chi Square Value	Df	P Value
1	Conservative Treatment	6	-	-	-	-	-	-	110.792	56	.000*
2	Endometrial Biopsy	-	-	-	-	-	15	-			
3	Fab-B Kit	2	-	-	-	-	-	-			
4	Follicular Study In Next Cycle	1	-	-	2	-	-	-			
5	Hysterosalpinography	1	-	-	-	-	-	-			
6	Hysteroscopy+Laprosopy	1	-	-	-	-	-	-			
7	Plan Hcg On Next Cycle	-	5	2	3	1	4	8			
8	Pteryinum Operation	-	-	-	3	-	-	-			
9	Hormonal Evaluation	-	-	-	-	-	-	-			

Table – 4.1.4-The chi square value indicated that there is significant association between causes of infertility and their treatment outcomes

*P value is Significant at P <0.05 chi square-(110.792) p value-(0.000)

2016 Treatments -2016 causes

S. No.		Abdominal Pain	Abortion	Fibroid	Mild Erosion	Obesity	Tumor	Menstural Irregularities	White Discharge	Chi Square Value	Df	P Value
1	Conservative Treatment	6	-	-	-	-	-	-	-	121.010	64	.000*
2	Endometrial Biopsy	-	-	-	-	-	-	15	-			
3	Fab-B Kit	2	-	-	-	-	-	-	-			
4	Follicular Study In Next Cycle	3	-	-	-	-	-	-	-			

5	HysterosalphiNography	1	-	-	-	-	-	-	-	-	-	-	-
6	Hysteroscopy+Laprosopy	1	-	-	-	-	-	-	-	-	-	-	-
7	Plan Hcg OnNext Cycle	-	4	1	3	1	1	1	1	1	12	-	-
8	PteryinumOperation	1	-	-	-	-	-	2	-	-	-	-	-
9	Hormonal Evaluation	-	-	-	-	-	-	-	-	-	-	-	-

Table – 4.1.5-The chi square value indicated that there is significant association between causes of infertility and their treatment outcomes

***P value is Significant at P <0.05 chi square-(121.010) p value-(0.000)**

2016 Treatments -2017 causes

S. No.		Abdominal Pain	Amennorhea	Hyperthyroidism	Hypothyroidism	Mild Erosion	Obesity	Ovary Endocrine	Pain Bleeding	Premanpause	Vaginal Bleeding	Menstural Irregularities	White Discharge	Chi Square	Df	P Value
1	Conservative Treatment	-	-	-	1	-	-	1	-	-	4	-	-	208.187	88	.000*
2	EndometriaL Biopsy	-	-	-	-	-	-	-	-	-	-	15	-			
3	Fab-B Kit	-	1	-	-	-	-	-	-	-	1	-	-			
4	Follicular Study In Next Cycle	-	-	-	-	-	3	-	-	-	-	-	-			
5	Hysterosalp Hinography	-	-	-	-	-	-	-	-	-	1	-	-			
6	Hysteroscopy+Laprosopy	-	-	-	-	-	-	-	-	-	1	-	-			
7	Plan Hcg OnNext Cycle	4	-	1	-	5	-	-	2	2	-	2	7			
8	Pteryinum Operation	-	-	1	-	-	2	-	-	-	-	-	-			
9	Hormonal Evaluation	-	-	-	-	-	-	-	-	-	-	-	-			

Table – 4.1.6-The chi square value indicated that there is significant association between causes of infertility and their treatment outcomes

***P value is Significant at P <0.05 chi square-(208.187) p value-(0.000)**

2017 Treatments -2015 causes

S. No.		Abdominal Pain	Fibroid	Hyperthyroidism	Obesity	Tumor	Menstural Irregularities	White Discharge	Chi Square	Df	P Value
1	Conservative Treatment	2	-	-	-	-	-	-	98.599	42	.000*
2	Follicular Study InNext Cycle	-	-	-	-	-	-	17			
3	Hormonal Evaluation	4	-	-	-	-	-	-			
4	Hysterosalphinogr Aphy	2	-	-	-	-	-	-			
5	Hysteroscopy+Lapr Oscopy	1	-	-	-	-	-	-			
6	Plan Hcg On NextCycle	2	1	4	2	8	1	10			
7	Pteryinum Operation	-	-	-	-	-	-	-			
8	Fab-B Kit	-	-	-	-	-	-	-			
9	Endometrial Biopsy	-	-	-	-	-	-	-			

Table – 4.1.7The chi square value indicated that there is significant association between causes of infertility and their treatment outcomes

***P value is Significant at P <0.05 chi square-(98.599) p value-(0.000)**

2017 Treatments -2016 causes

S. No.		Abdominal Pain	Abortion	Fibroid	Mild Erosion	Obesity	Tumor	Menstrual Irregularities	White Discharge		Chi Square Value	Df	P Value
1	Conservative Treatment	2	-	-	-	-	-	-	-	-	91.533	48	.000*
2	Follicular Study In Next Cycle	-	-	-	-	-	-	-	17	-			
3	Hormonal Evaluation	4	-	-	-	-	-	-	-	-			
4	HysterosalpinograpHy	2	-	-	-	-	-	-	-	-			
5	Hysteroscopy+LaprosCopy	1	-	-	-	-	-	-	-	-			
6	Plan Hcg On Next Cycle	5	4	1	3	1	3	1	-	10			
7	Pteryinum Operation	-	-	-	-	-	-	-	-	-			
8	Fab-B Kit	-	-	-	-	-	-	-	-	-			
9	Endometrial Biopsy	-	-	-	-	-	-	-	-	-			

Table – 4.1.8-The chi square value indicated that there is significant association between causes of infertility and their treatment outcomes

***P value is Significant at P <0.05 chi square-(91.533) p value-(0.000)**

2017 Treatments -2017 cause

S. No.		Abdominal Pain	Amennorhea	Hyperthyroidism	Hypothyroidism	Mild Erosion	Obesity	Ovary Endocrine	Pain Bleeding	Premanpause	Vaginal Bleeding	Menstrual Irregularities	White Discharge	Chi Square	Df	P Value
1	Conservative Treatment	-	-	-	1	-	-	1	-	-	-	-	-	192.738	66	.000*
2	Endometrial Biopsy	-	-	-	-	-	-	-	-	-	-	17	-			
3	Fab-B Kit	-	-	-	-	-	-	-	-	-	4	-	-			
4	Follicular Study In Next Cycle	-	-	-	-	-	-	-	-	-	2	-	-			
5	Hysterosalphino Graphy	-	-	-	-	-	-	-	-	-	1	-	-			
6	Hysteroscopy+L Aproscopy	4	-	2	-	5	4	-	2	2	-	-	7			
7	Plan Hcg On Next Cycle	-	1	-	-	-	1	-	-	-	-	-	-			
8	Pteryinum Operation	-	-	1	-	-	2	-	-	-	-	-	-			
9	Hormonal Evaluation	-	-	-	-	-	-	-	-	-	-	-	-			

Table – 4.1.9-The chi square value indicated that there is significant association between causes of infertility and their treatment outcomes

***P value is Significant at P <0.05 chi square-(192.738) p value-(0.000)**

STRENGTHS & LIMITATION OF THE STUDY

The limitation of the study:

1. The study is delimited to infertile females (18-43yrs) of age only.
2. The time of data collection is delimited to 1month.
3. The study is delimited to IPD &OPD infertile females of gynecology department.

CONCLUSION

Based on the finding of the study following are important implication. In general education 14 general cause had been found in this study. It may be utilize in spreading the awareness regarding in fertility among general public. The women’s had several myths misconception regarding infertility. There shall be awareness program regarding

infertility and its treatment. The early diagnosis preferred good source for detecting the cause and preventing the infertility. Health education in community and in health care delivery center can be utilized effectively for spreading awareness regarding causes, treatment and prevention of infertility. The nursing syllabus covers role of midwives and delivery health care services and early diagnosis of the diseases. Nurse educator should emphasize on (early detection and treatment of the causes) aspect in the management of infertility while discussing delivery community health services. The nurse educator should take active participation.

SUMMARY– this chapter has dealt with the implication of the study. This study is implacable to general and nursing education, nursing practices, nursing administration, community practice and nursing research.

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