International Journal of Science and Research (IJSR)
ISSN: 2319-7064
Index Copernicus Value (2016): 79.57 | Impact Factor (2017): 7.296

# Evaluating the Knowledge Factors Influencing Anxiety among Couples Attending Infertility Clinic

**Dr. P. Kanagavalli, RN, RM, M.Sc. (N), Ph. D(N)**

Associate Professor, Madha College of Nursing affiliated to The Tamil Nadu Dr.M.G.R. Medical University, Chennai, India

**Abstract:** ***An experimental study was carried out at infertility clinics. This study aims to assess the couples' knowledge regarding infertility and their level of anxiety. Purposive sample of 200 couple have been chosen while they were visiting the clinic. A structured questionnaire was constructed for the purpose of assessing the knowledge regarding infertility and Hamilton Anxiety Rating Scale was used to measure the level of anxiety among them. Data were collected before and after video assisted teaching programme. Descriptive and inferential statistics were used to analyse the data. With respect to the level of knowledge majority 120 (60%) of them had inadequate knowledge, 80 (40%) of them had moderate knowledge on diagnosis of infertility whereas in post test 160 (80%) of them had adequate knowledge, 40 (20%) of them had moderate knowledge and none of them showed inadequate knowledge in post test. The mean and standard deviation of pretest knowledge among couples (m= 20.03, S.D= 3.28) were lesser than that of posttest knowledge (m= 32.9, S.D = 2.80) and thus indicates the effectiveness of Video assisted teaching programme. With respect to the level of anxiety majority146 (73%) of them had severe anxiety, 54 (27%) of them had moderate anxiety whereas in post test 134 (67%) of them had mild anxiety, 166(33%) had moderate anxiety and none of them showed severe anxiety in post test. The mean and standard deviation of pretest level of anxiety among couples (m= 48.03, S.D=2.28) were higher than that of posttest level of anxiety (m= 20.9, S.D = 1.80) and thus indicates the effectiveness of Video assisted teaching programme. Thus the study findings accepted the research hypothesis that there is significant difference in the level of knowledge and anxiety following the video assisted teaching programme among infertile couple. There is statistically significant negative relationship between the pretest level of knowledge of the infertile couples and pre test anxiety level (*P<0.004), between the post test level of knowledge of the infertile couples and the pretest level of anxiety (**P<0.01). There was no statistical association between the couple's knowledge on infertility and selected common demographic variables in pretest at p < 0.05. There was no association between the couple's anxiety level and the selected demographic variables in post test at p < 0.05. From this study, the researcher found that the couples have gained knowledge regarding infertility and perceived less anxiety due to the video assisted teaching programme. Hence the nurse midwife suggests that formulated teaching not only helps to gain knowledge on the particular area and it also helps them psychologically to develop positive attitudes towards fertility by decreasing their anxiety and to maintain the healthier relationship with the society.***

**Keywords:** Knowledge, Infertility, Anxiety

## 1. Introduction

Expecting a child is the most joyous moment of every woman. Pregnancy comes with a lot of responsibility that are associated with the individual and child. All human life in the planets is born of women, the joy and ecstasy of motherhood cannot be expressed in words. A women hood gets completed only if she conceives and delivers a baby. Few life events are as wonderful, ambivalent, memorable and defining as pregnancy. A girl child enters the arena of womanhood at the time of puberty. The nature signals to show that a female has reached physical maturity which will render her capability of bearing a child, this certainly does not mean that she is mature mentally. Though her body is now ready for the process of procreation, her mental development may not have kept pace with her physical development. Marriage and childbirth are not diseases themselves as some ignorants may conceive and dread.

They are something physiological, natural and beautiful process to be admired. Parenthood is undeniably one of the most universally desired goal in adult hood. However not all couples who desire a pregnancy will achieve spontaneously and there are proportions of couples who need medical help to resolve underlying infertility problems.

It is estimated that globally 60-80 million couples suffer from infertility every 3 years. In Asia the infertility rate is about 39%(ICMR, 2008). In India 15-20% of the married couples in their fertile age group, are the sufferers, and it is on the increase because of urbanization, pollution, stress, chemical exposure, competitiveness, career orientation, late settlement in life etc, and by the present statistics (2009) it is about 20%. Today fertility and infertility have both emerged equally problematic in the world population context. Most fertile couples around 90% should get pregnancy within a year of regular intercourse. This rises to 95% over a two year period.

Approximately, $1/6^{th}$ of marriages are involuntarily childless although the exact number inevitably depends on how the complaint is defined. Of 100 couples trying to conceive, 40 will not be pregnant after 9 months and 15 will not have conceived after a year of trying.

Indian society attaches a grave stigma to infertile woman. A new concept of reproductive health envisages the provision of a package of health care to woman that includes family planning and safe motherhood, treatment of reproductive tract infections as well as for helping infertile couples to have children, thereby giving infertility a due place in the health care delivery system.

A significant number of couples complain that they are not told about the treatment path and a lot of their questions remain unanswered. This information gap might lead to anxiety. The goal of this study is to evaluate the impact of video assisted teaching programme regarding infertility on the level of knowledge and anxiety among infertile couples.

## 2. Problem Statement

A pre experimental study to assess the effectiveness of video assisted teaching programme regarding infertility on knowledge and anxiety level of couples attending infertility clinic in selected settings at Chennai.

## 3. Methodology

### 3.1 Research Design

The research design selected for the study was pre experimental one group pre test post test design. This design was used to assess the effectiveness of video assisted teaching programme regarding infertility on level of knowledge and anxiety among couples attending the infertility clinic.

### 3.2 Setting

The study was conducted at selected Fertility Research Centres, Chennai.

### 3.3 Population

The population consists of couples attending selected infertility clinics at Chennai

### 3.4 Sample Size

A sample of 200 couples attending selected infertility clinics at Chennai

### 3.5 Sampling Technique

Purposive sampling technique was used to select the couples attending infertility clinic

#### 3.5.1 Inclusion Criteria

- Couples those who were between 21-35 years of age.
- Couples attending first time to this infertility clinic.
- Couples diagnosed to have primary infertility for a period of 1 - 3 years and without receiving treatment.

#### 3.5.2 Exclusion Criteria

- Couples who do not understand Tamil and English.
- Couples who were not willing to participate in this study.

### 3.6 Description of the Instrument

In this study data collection was done using structured questionnaire. It consist of four parts.

**Part- I**

Demographic data of the wives which includes age, menstrual pattern, age at marriage, educational status. Demographic data of the husbands which includes age, age at marriage, educational status. Common demographic variables include type of marriage, monthly family income, years of infertility.

**Part-II**

The self administered tool was prepared to assess the knowledge on infertility among couples attending infertility clinics. It consists of 35 items regarding the infertility. The correct response carries 1 mark and a wrong answer carries 0 mark. The scoring was interpreted as follows.

| | |
|---|---|
| Inadequate knowledge | < 50% |
| Moderate knowledge | 50-75% |
| Adequate knowledge | < 75% |

**Part- III**

Hamilton anxiety scale was used to assess the anxiety level of couples attending infertility clinic. The scale consists of 14 items each defined by a series of symptoms and measures both psychic anxiety and somatic anxiety.

The responses were scored depending on the feelings perceived by the couples that is 0 for no anxiety, 1 for mild, 2 for moderate, 3 for severe and 4 for very severe symptoms. The maximum score was 56. The scoring was interpreted as follows

| | |
|---|---|
| No anxiety | 0 |
| Mild anxiety | 1 – 17 |
| Moderate anxiety | 18 – 17 |
| Severe anxiety | 25 – 56 |

**Part-IV**

Video assisted teaching programme includes general information about fertility and infertility, causes and diagnosis of infertility for both husbands and wives in the form of power point presentation, video clip teaching and the module on the treatment modalities.

### 3.7 Data collection Procedure

The self administered tool was used to assess the knowledge of couples regarding infertility. Hamilton Anxiety rating scale was used to determine the anxiety level of infertile couples. A total of 200 couples were selected using purposive sampling. After the pre test, couples were given with video assisted teaching programme on infertility and thereafter the couples have attended the Video Assisted teaching on anxiety reduction strategies after 15 days. It was made sure that the couples practice the anxiety reduction strategies using the self monitoring check list. After two months, the post test was conducted with the same self administered tool.

## 4. Data Analysis

- Demographic variables of couples attending infertility clinic were analyzed in terms of frequency and percentage.
- Mean and standard deviation was used to compute pre and post test level of knowledge among the couples attending infertility clinic.
- Paired ‘t’test was used to evaluate the effectiveness of Information education and communication package among couples attending infertility clinic.
- Pearson’s correlation coefficient was used to identify the relationship between the level of knowledge and the anxiety among couples attending infertility clinic.

- Chi-square test was used to associate the pre and post test level of knowledge among the couples with their selected demographic variables.

## 5. Results

The result of this study highlighted some interesting facts and some points of concern. In this study, it was found that 47% of women were in the age group of 25–29 years. The findings of the study were supported by Douglas (1999), he stated that 10-15% of couples in reproductive age group between 15 – 40 years were affected due to infertility and also the another researcher namely Herbert Marshell (2001), highlighted that the prevalence of infertility is relatively stable among the overall population, but increases with the age of women particularly in those older than 40 years.

The present study also revealed that most of them (70%) had regular menstrual pattern. It shows that menstrual pattern had no effects on infertility among couples, but the study done by Gupta N et al., in the year 2007, found that menorrhagia, oligomenorrheoa, hypomenorrheoa, primary and secondary amenorrheoa were the causes of infertility.

The present study also revealed that half of them 50% were married between 25-29 years. It can be interpreted that the public had adequate awareness about the ideal age of marriage for women and child bearing. The optimal age for child bearings are between the ages of 20 – 30 years (Park 2009).

In concerned with educational status 70% of wives and 63% of husbands completed their graduation. Despite being relatively well educated, the couples have a rudimentary understanding of reproductive biology. So, the nurse investigator felt easy to impart knowledge on diagnosis of infertility. Hence the investigator suggests couples should be encouraged to alter any unfavorable lifestyle practices that would decrease their chance of pregnancy.

Regarding the couples visited to the hospital around 60% couples already visited the other hospital for the same problem and 40% of couples visiting first time in the level of knowledge there is no significant relation between the couples knowledge and their previous visiting to the hospital. the hospital, he concluded that there is significant relation between the visiting hospital before and present situation. In the present study regarding the pre test level of knowledge on infertility among the couples, 120 (60%) of couples had inadequate knowledge, 80 (40%) couples had moderate knowledge and none of them had adequate knowledge.

Whereas In the post test majority 160 (80%) of them had adequate knowledge on infertility and 40 (20%) of them had moderate knowledge on infertility. None of them had inadequate knowledge on infertility. Very specifically 140 (70%) were having adequate knowledge in the aspects of causes and general information about infertility, 160(80%) were having adequate knowledge on diagnosis of infertility. With respect to the level of anxiety majority 146 (73%) of them had severe anxiety and 54 (27%) of them had moderate anxiety. None of them had mild anxiety in the pre test. Whereas, majority 134 (67%) of them had mild anxiety and 66 (33%) of them had moderate anxiety. None of them had severe anxiety in the post test.

In the pre test level of knowledge among couples attending infertility clinic (m= 15.03, SD= 3.28) was lesser than that of post test knowledge (m=24.9, SD= 2.80) and it was statistically significant at p< 0.01. Paired‘t’ test value (3.005) was greater than table value. It shows that video assisted teaching programme was effective and significant. Comparatively among husbands there is marked improvement in the knowledge level regarding diagnosis of infertility in the pretest most of the (60%) husbands were had inadequate knowledge whereas in post test (80%) of them were had adequate knowledge. Similarly wives knowledge also had improved.

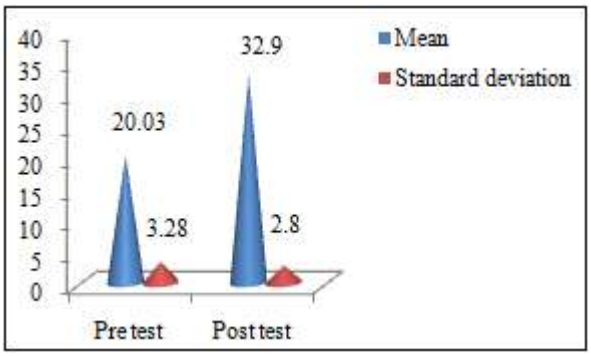


**Figure 1:** Comparison of mean score between the pre test and post test level of knowledge on infertility among couples attending infertility clinic

In the present study, the comparison between mean and standard deviation of pre test and post test level of anxiety among couples attending infertility clinic was analysed. It shows that the mean and standard deviation of pretest level of anxiety among couples (m= 48.03, S.D=2.28) were higher than that of posttest level of anxiety (m= 20.9, S.D = 1.80) and thus indicates the effectiveness of Video assisted teaching programme.

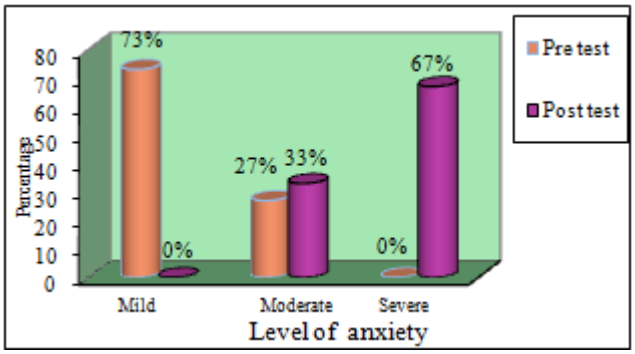


**Figure 2:** Percentage distribution of pre test and post test level of anxiety

| Assessment | Pre test Anxiety | | Post test Anxiety | |
|---|---|---|---|---|
| | r value | P value | r value | P value |
| Pre test Knowledge | -0.288 | 0.004* | 0.193 | 0.054 |
| Post test Knowledge | 0.193 | 0.054 | -0.364 | 0.000** |

*P < 0.05, ** P < 0.01

The above table highlights the correlation between the knowledge level of the infertile couples and their anxiety level. The results shows that there is statistically significant negative relationship between the pretest level of knowledge of the infertile couples on infertility and pre test anxiety level (*P<0.005), between the post test level of knowledge of the infertile couples and the pretest level of anxiety (**P<0.01).

In the pre test, the couples who had inadequate and moderately adequate knowledge regarding infertility have demonstrated severe and moderate level of anxiety. Similarly, this negative correlation was found between the knowledge and the anxiety level which revealed that couples who perceived mild level of anxiety have gained adequate knowledge on infertility in the post test.

The findings of the study revealed that there was no statistically significant association between the level of knowledge and any of the demographic variables such as type of marriage, family income and years diagnosed as infertility. It was observed that these demographic variables have no influence on knowledge regarding diagnosis of infertility. Hence, the proper teaching is essential to improve the knowledge of couples. The medical and paramedical professionals should have the thorough knowledge and they must be available to the couples to clarify the doubts. The couples must be provided with pamphlets, video show and health teaching which are essential to impart the knowledge and to access early for the treatment.

## 6. Discussion

***To assess the level of knowledge regarding infertility among the couples attending infertility clinic.***

In the present study regarding the pre test level of knowledge on infertility among the couples, 120 (60%) of couples had inadequate knowledge, 80 (40%) couples had moderate knowledge and none of them had adequate knowledge.

Similarly the knowledge of infertile couples was assessed by the Wiersema.W.J.et al., (2008). They explored the psycho socio cultural and economic consequences of infertility among the infertile couple in South Vietnam. The purpose of this research was to improve knowledge about the potentially serious implications of infertility in the South Vietnam. This study included 118 infertile couples and they filled the questionnaire. The result showed men and women do not differ in their responses and attitudes towards infertility. The conclusion of the study revealed that the infertile couples need more psychological counseling during their treatment.

***To assess the level of anxiety among couples attending infertility clinic***

With respect to the level of anxiety majority 146 (73%) of them had severe anxiety and 54 (27%) of them had moderate anxiety. None of them had mild anxiety in the pre test.

In the study conducted by Gollenberg. et al., (2009) revealed the association between stressful life events and semen parameters. The study included the main outcome measures in the sperm concentration such as percent motile and percent of normal morphology and semen quality. The result showed, men reporting more than 2 stressful life events had an increased risk for decreased concentration, motility and morphology when compared with men reporting less than 2 stressful life events. The study concluded that stressful life events were associated with decreased semen quality in fertile men.

***To assess the post test level of knowledge regarding infertility among couples attending infertility clinic.***

In the present study, with respect to the level of knowledge majority 160 (80%) of them had adequate knowledge on infertility and 40 (20%) of them had moderate knowledge on infertility. None of them had inadequate knowledge on infertility in the post test.

The couples gained adequate knowledge regarding diagnosis of infertility after an video assisted teaching programme. This shows that the video assisted teaching programme was effective in improving the knowledge of couples and also it indicates that the medical and nursing personnel have to take steps in inculcating the knowledge regarding infertility by using various teaching modules which can be easily understood by the couples. The investigator suggests that nurses and coordinators of fertility services must be more sensitive and knowledgeable than usual. They must continually be involved in education designed to broaden their appreciation for the medical and emotional aspects of fertility disorders.

In the post test 140 (70%) were having adequate knowledge in the aspects of causes and general information about infertility, 160(80%) were having adequate knowledge on diagnosis of infertility. In concerned with Buntimg.B et al., (2008) examined knowledge about infertility risk factors, and fertility myths among the young people in Argentina. The study investigated two areas of knowledge namely risk factors associated with infertility like smoking and about fertility myths. The result showed that young people were better in identifying the risk factors and infertility myths. This study concluded that young people were aware of the negative lifestyle factors reducing fertility.

In the present study, the commonest causes of infertility among these patients were, RTIs, anovulation. The least common causes were working in hot condition/wearing of tight underclothing which was seen in 33.7% and 38.5% of the patients respectively. The patients also have knowledge about solutions of infertility in this order, that ART, regular sexual intercourse, taking hormonal drugs, antibiotics of choice, multivitamins and surgical removal of fibroids as follows; 70.3%, 60.2%, 79%, 86.9%, 85.4% and 84.6% respectively. However, the least common solutions according to the patients are seen thus; engaging in varieties of sexual styles/positions, adoption of a child, corrective tubal surgery and wearing of loose/free underclothing representing 28.1%, 53.6%,53.8% and 55.4% respectively. Patients have knowledge about causes and solutions of infertility at different rates. It was recommended among others that any one suffering from infertility should wear

free/loose underwear and reduce working in a severely hot condition.

***To assess the post test level of anxiety among couples attending infertility clinic.***

In the present study, with respect to the level of anxiety majority 134 (67%) of them had mild anxiety and 66 (33%) of them had moderate anxiety. None of them had severe anxiety in the post test.

Similarly a cross sectional study conducted by Fatemeh R, (2003) to survey the relationship between anxiety/depression and duration/cause of infertility, in Vali-e-Asr Reproductive Health Research Center, Tehran, Iran. After obtaining their consents, 370 female patients with different infertility causes participated in, and data gathered by Beck Depression Inventory(BDI) and Cattle questionnaires for surveying anxiety and depression due to the duration of infertility. This was studied in relation to patients' age, educational level, socio-economic status and job (patients and their husbands. Age range was 17–45 years and duration and cause of infertility was 1–20 years. This survey showed that 151 women (40.8%) had depression and 321 women (86.8%) had anxiety. Depression had a significant relation with cause of infertility, duration of infertility, educational level, and job of women. Anxiety had a significant relationship with duration of infertility and educational level, but not with cause of infertility, or job. Findings showed that anxiety and depression were most common after 4–6 years of infertility and especially severe depression could be found in those who had infertility for 7–9 years. Adequate attention to these patients psychologically and treating them properly, is of great importance for their mental health and will improve quality of their lives.

***To determine the effectiveness of video assisted teaching programme on level of knowledge regarding infertility among couples attending infertility clinic***

In the pre test level of knowledge among couples attending infertility clinic (m= 15.03, SD= 3.28) was lesser than that of post test knowledge (m=24.9, SD= 2.80) and it was statistically significant at p< 0.01. Paired‘t’ test value (3.005) was greater than table value. It shows that information education and communication package was effective and significant. Comparatively among husbands there is marked improvement in the knowledge level regarding diagnosis of infertility in the pretest most of the (60%) husbands were had inadequate knowledge whereas in post test (80%) of them were had adequate knowledge. Similarly the wives knowledge also improved.

In concern with the Anne, et al., (2006) conducted a study on the importance of clinical diagnosis in the management of infertility in males and females among the primary infertile couples in Victoria infertility clinic in Canada. A structure interview method was carried out to assess the importance of clinical diagnosis in the management of infertility. The study results showed that only 10% of them were aware of the diagnostic procedures and remaining 90% were unaware of the procedures. This study results were similar to the present study.

It shows that knowledge on infertility can remove the fear on diagnosis by reducing the stress of the couples with information education and communication package.

***To determine the effectiveness of video assisted teaching programme on level of anxiety among couples attending infertility clinic.***

In the present study, the comparison between mean and standard deviation of pre test and post test level of anxiety among couples attending infertility clinic was analysed. It shows that the mean and standard deviation of pretest level of anxiety among couples (m= 48.03, S.D=2.28) were higher than that of posttest level of anxiety (m= 20.9, S.D = 1.80) and thus indicates the effectiveness of Video assisted teaching programme. Thus the study finding rejected the null hypothesis.

***To identify the relationship between level of knowledge and anxiety among couples attending infertility clinic***

The above table highlights the correlation between the knowledge level of the infertile couples and their anxiety level. The results shows that there is statistically significant negative relationship between the pretest level of knowledge of the infertile couples on infertility and pre test anxiety level (*P<0.004), between the post test level of knowledge of the infertile couples and the pretest level of anxiety (**P<0.01).

In the pre test, the couples who had inadequate and moderately adequate knowledge regarding infertility have demonstrated severe and moderate level of anxiety. Similarly, this negative correlation was found between the knowledge and the anxiety level which revealed that couples who perceived mild level of anxiety have gained adequate knowledge on infertility in the post test.

Supportively a study conducted by Drosdzol. A (2011) to evaluate the influence of infertility on the severity of anxiety and depression in infertile couples revealed the differences between infertile couples (206 women and 188 men) and fertile couples (n = 190) with symptoms of depression and anxiety, as measured by the Beck Depression Inventory and Beck Anxiety Inventory. Infertile women (35.44%) scored above the cut-off for severe symptoms of depression, compared with 19.47% of fertile women. In the case of anxiety evaluation there was significant total prevalence among infertile women (15.53%). In the male groups there was a comparable frequency of negative results for depression and anxiety and their intensity. Among Female Infertile, depression occurred most frequently in combined infertility, whilst among Male Infertile in male infertility, with a time-frame of 3-6 years causing the creation and severity of depressive symptoms. The risk factors of depression and anxiety in infertility include: female sex, age over 30, lower level of education, lack of occupational activity, diagnosed male infertility and infertility duration of 3-6 years.

***To associate the pre test and post test level of knowledge regarding infertility among couples attending infertility clinic with their selected demographic variables.***

The findings of the study revealed that there was no statistically significant association between the level of

knowledge and any of the demographic variables such as type of marriage, family income and years diagnosed as infertility. It was observed that these demographic variables have no influence on knowledge regarding infertility. Hence, the proper teaching is essential to improve the knowledge of couples. The medical and paramedical professionals should have the thorough knowledge and they must be available to the couples to clarify the doubts. The couples must be provided with pamphlets, video show and health teaching which are essential to impart the knowledge and to access early for the treatment.

***To associate the pre test and post test level of anxiety among couples attending infertility clinic with their selected demographic variables.***

The findings of the study revealed that there was no statistically significant association between the level of anxiety and any of the demographic variables such as type of marriage, family income and years diagnosed as infertility. It was observed that these demographic variables have no influence on anxiety level of the infertile couples. Hence, irrespective of the caste, creed, economic status, duration of infertility the anxiety among the couples with infertility is very severe. Thus, the investigator assumes that the proper teaching is essential to improve the knowledge of couples which would help the individual to cope up with the anxiousness. The medical and paramedical professionals should have the thorough knowledge and they must be available to the couples to clarify the doubts. The couples must be provided with pamphlets, video show and health teaching which are essential to impart the knowledge and to reduce the anxiety level among the couples and to access early for the treatment.

The null hypothesis of the study was rejected according to the statistical difference found in the‘t’ test at the level of $p < 0.01$ and reported that the Video Assisted Teaching was effective in improving the knowledge of the couples on infertility and also in minimizing the anxiety level of the infertile couples.

**Nursing Implications**

The nurse midwife plays a major role in identifying the couples and educating them in the areas of infertility including causes and the diagnosis of infertility. Promotion of health and improve the couples knowledge in diagnosis of infertility. Midwife should give adequate information and education to the couples and eradicate their fear and help them to promote their life status. The nurse midwives should be given special training on health teaching, counseling the couples and placement should be provided in the respective areas to equip themselves with the modern instruments and newer procedures in the field of infertility. They should maintain confidentiality and anonymity as they are dealing with the reproductive techniques among the couples.

Nurses caring for those experiencing infertility should be aware of the tremendous emotional stress that this condition can place an individual, couples and those who care for them and support from nurses make a tremendous different in the ability of clients to maintain self esteem and control during a different time. They can act like an advocate and supply resources and information through the community health nurses.

Mental health professionals with experience in infertility treatment can help a great deal. Their primary goal is to help individuals and couples learn how to cope with the physical and emotional changes associated with infertility, as well as with the medical treatments that can be painful and intrusive. For some, the focus may be on how to deal with a partner's response. For others, it may be on how to choose the right medical treatment or how to begin exploring other family building options. For still others, it may be on how to control stress, anxiety, or depression. By teaching patients problem- solving strategies in a supportive environment, mental health professionals help people work through their grief, fear, and other emotions so that they can find resolution of their infertility. A good therapist can help you sort out feelings, strengthen already present coping skills and develop new ones, and communicate with others more clearly. For many, the life crisis of infertility eventually proves to be an opportunity for life-enhancing personal growth.

## References

[1] Boback, Jenson & Lowdermilk, (1996). *Maternity Nursing*. (4th ed.). Saint laws.CV Mosby Company.
[2] Carcio, H.A, (1991). *Management of infertile Women*, (5th ed.).New York, J.B. Lippincott & Company.
[3] Dick, Grantly, ( 1959). *Child birth without Fear*,(3rd ed.). London, William Med.cal Book Ltd.
[4] Dutta D.C, (2009). *Text book of Gynecology*.(4th ed.). Calcutta, New Central book agency Ltd.
[5] Down.D.C, (2000). *Text book of Gynecology*. (3rd ed.). New central book agency Ltd.
[6] Gunninghan, Levenobloo M.Houth, sterpwenston, (2005). *Text book of williams obstetrics*. (22nd ed.). Toronto, M.C. Grace Med.cal publishing Division.
[7] Jacob Annamma, (2005).*A comprehensive text book of midwife.(8th ed.)*.Bangalore, Jaypee brother’s publication.
[8] Lowdermilk & Perry, (2003). *Maternity Nursing Library of congress. cataloging in publication Data (6th ed.).* Mosby publication.
[9] Varney’s, (2005). *Text book of Midwifery*. (4th ed.). Newdelhi, All India publishers and distributors.
[10] Polit D.F. & BeckC.T, (2008). *Nursing research principles and methods*.(8th ed.). Philadelphia, Lippin cott Williams and Willkins.
[11] Stenchever, M. Droegemueller et.al. ,(2001). *Text books Comprehensive Gynecology. (*4th ed.). St. Louis, Mosby publication.
[12] *Adler, J.D. and Boxley, R.L. (1985) The psychological reactions to infertility: sex roles and coping styles. Sex Roles, 12, 271–279.*
[13] Beckmann, D., Brähler, E. and Richter, H.E. (1991) *Der Giessen-Test*(4th edn). Huber, Berlin.
[14] *Berg, B.J. (1994) A researcher's guide to investigating the psychological sequelae of infertility: methodological considerations. J. Psychosom. Obstet. Gynecol., 15, 147–156.*

[15] *Berg, B.J. and Wilson, J.F. (1990) Psychiatric morbidity in the infertile population: a reconceptualisation. Fertil. Steril., 53, 654–661.*
[16] Boivin .J,(2003). A Review of Psychosocial intervention in infertility social science,*Asian journal*, 20(2),18-57.
[17] Biosli.J ,(2001). Causes of infertility Human development and genetics, *Journal of obstrtrics and gynecology*.26 (4),33-38.
[18] Dr. Agarwal ,(2003). Treating infertility but at what cost,*Asian Journal of obstetrics and Gynecology practice*,32(5), 7-14.
[19] Guzick DS, Overstreet JW, Factor-Litvak P, et al.,(2001). Sperm morphology, motility and concentration in fertile and infertile men, Asian journal of gynecology,345(6)1388–1393.