Chapter I

INTRODUCTION

A Child at any price is less important than the child at the right time.
- Reboul (1976)

Background of the Study

Genesis tells adults to “be fruitful and multiply.” Having children is seen as part of ordinary adult life: peers expect one another to join in parenthood, and parents want the joy of becoming grandparents. Having children naturally follows growing up and getting married. Since the dawn of civilization, religious, cultural, social, and personal values all have placed value on fertility (Mahlstedt, 2000).

The emotionally normal woman wants children, because they represent one of the major goals of womanhood (Wilson, 1998). According to Erickson, the task of middle adulthood is generativity. Generativity is the task of guiding and helping children (Blenner, 1999).

Mahlstedt (2000) stated that children are, after all, the natural result of love and marriage. After several months of anticipation, most of the couples get conceived, proudly announce their accomplishment to their family and friends; enthusiastically shop for maternity clothes and baby toys; and they begin to
prepare themselves, emotionally for the changes that the pregnancy and children will bring to their lives.

It is remarkable that somethings, as basic as conception, could evoke such powerful personal feelings in those who experience it: intense pride in one’s sexual competence, overwhelming joy at being able to attach to others who value this experience (especially family and friends), and unexpected excitement at accomplishing a significant goal of adult life. At a very personal level, being fertile means that one could be productive and grown up (Mahlstedt, 2000).

Cabau and Senarclens (2001) quoted that to give birth to a child is to give meaning to one’s life as an individual and as a couple. With a child, the family line gets continued, the parents find their place in the genealogical order and perpetuate the life given to them in order to make a good debt. The advent of a child implies an entire new organization, whilst this new being prolongs the family history. He is a new individual with his share of unknown and unpredictable elements.

Bhargava (2009) stated that Indian civilization is one of the most ancient. During the entire history of our sub-continent, the emphasis on the family has been paramount, and family means children. Thus, having a child has been considered as the greatest importance not only to the couple but also to their family. Socially, a stigma is attached to a couple (traditionally, to the
woman partner), if the couple does not have a child. Economically, children have been the couple’s best insurance during old-age, and this continues to be so even today, since there is no adequate social security system operative in the country. Children alone provide help in augmenting the family’s income by sharing the family’s work for those belonging to the lower strata of the society, including most farming families in our villages.

Mahlstedt (2000) stated that becoming a parent is both a lifelong fantasy and a developmental need of most adults. It is a part of one’s core identity which is often taken for granted that most do not realize its significance. The dream is that children will enable one to become an adult in the eyes of the previous generation, to project the best of oneself in someone else, and to be respected by one’s peers. The friendships that are formed through the activities of children’s lives are long-lasting and enrich the personal lives of the adults.

Seshadiri (2011) defined infertility as the failure to conceive after one year of unprotected sexual intercourse.

John (2004) expressed that despite having so many family welfare programmes, population explosion is still a problem, which our country is facing even now. At the other extreme end, the infertility is also a problem affecting, approximately, 10% of the couples in India.
Lashen (2004) stated that infertility affects 9% to 14% of couples of whom 70% suffer from primary infertility and 30% secondary infertility.

Malhotra, (2004) quoted that infertility has been a known fact since the biblical times and there have been references found in both the old and the new testaments on the problems of infertility and its treatments. In fact, even surrogacy has been mentioned.

‘If a couple was unable to bear a child, the woman was thought to be barren’.

Schmidt, (2010) quoted that infertility, besides being a medical condition, is a social situation. Infertility is a low-control, chronic stressor with severe long-lasting negative social and psychological consequences.

Makhejja, (2005) expressed that infertility is a medical and social problem found everywhere on the globe. In India, where child bearing is highly valued, the childlessness can have devastating consequences. Infertility is more traumatic for women as it is considered essence of female role and identity. Thus, infertility can create feeling of physical and social inferiority that can overshadow all other personal and social values.

Cleghorn and Bos (1998) expressed that every married woman is exposed to culturally determined pressures from her husband, relatives and friends with regard to childbearing. There
is a stigma attached to the word sterile. The term itself denotes empty, worthless, superfluous, unserviceable, stale and a vain life.

It is easy to understand the potential impact of infertility on the individuals and couples when we note the innate desire of humans to reproduce. A large portion of our lives is centered around reproduction, parenthood, and the raising of a family. There are many biological, cultural, and religious determinants. When men and women aware that reproduction is delayed, an emotional crisis may develop which we call the “crisis of infertility.” This emotional state includes the feelings of frustration, anger, guilt and isolation. The presence of these adverse emotions in one or both partners may interfere negatively with many areas of their marriage and the quality of life of the individual in general, communication with spouse, sexual adjustment, attitude towards career and the possible failure of fertility. The very quality of life is markedly deteriorated for somebody (Bresnick & Taymor 1999).

Mahlstedt, (2000) quoted that childless couples feel reminded of the cultural, social, and personal expectations. They feel different, abnormal, out of place. Some feel that divorce would be a more socially acceptable solution. Others think their worth to society is lessened by their inability to have children.

The very thought about their own children, friends and relatives may avoid the infertile couple and isolate them even more, besides the feelings of inadequacy and injured pride result.
Couples who felt well liked, accepted, and respected by others prior to their infertility may lose the certainty that others appreciate them. Attention and respect are given to those who have children. The infertile couple feels different, less acceptable, and left out.

John, (2004) stated that Peers start their families and talk about the number of children they may have. The infertile must face the possibility that they may never become parents, never hold their baby in their arms. They can neither be called mom or dad, nor experience the special love of parent and child and never participate in their children development. The childless misses out a normal stage of adult development parentship.

If a woman does not conceive within the first few months of her marriage, it is often inquired by others and suggestions would be given. Inability to conceive or give birth to a child is considered an unusual state by the couple themselves and others.

Among many couples, especially, female partner, infertility brings the feelings of being alienated from the “fertile world”, guilt, ambiguous social status, deterioration in the areas of marital communication, affective expression, closeness and problem solving. This was mostly experienced by the women – from rural areas, living in joint or extended families and those married for more than six years. This anxiety and distress can cause or make worse any sexual dysfunction, e.g. decrease or loss of libido, thus
perpetuating the problem. Also, the sexual activity may no longer be pleasurable but only an attempt to procreation. There are widespread but anecdotal reports to emotional harassment by a large number of childless women in their marital homes, such as ostracism and violence. In the Indian context, there have been reports of men taking on another partner when the wife was unable to beget a child. Couples married for more than five years had more vaginismus, dyspareunia and sexual dissatisfaction.

Having no children is the worst thing in life, that means somebody just came into the world to suffer without any reason... 'It is a living death' (Belsey and Ware 1986).

Ramezenzadeh et al., (2004) stated that having a child stabilizes the family and increases the marital satisfaction. In our culture and society, negative attitudes to infertility are so throbbing. Absence of child may cause marital problems such as divorce or even second marriage. Infertile woman experiences negative social consequences including marital instability, stigmatization and abuse.

Rutstein (2004) expressed that the inability to bear children is a tragedy for many couples, bringing a sense of loss, failure and exclusion. The conflux of personal, interpersonal, social and religious expectations brings a sense of failure, loss and exclusion to those who are infertile. Relationships between couples can become very strained in the absence of their own children. One
partner may seek to blame the other as being defective or unwilling. Socially, most societies are organized, especially, in the developing countries, such that children are necessary for care and maintenance of older parents. Even in developed countries with social support systems, children and family are expected to provide much of the care for the elderly. Childless couples are also excluded from taking leading roles in important family functions and events such as birthdays. Moreover, many religions assign important ceremonial tasks to the couple’s children.

Seibel and Taymor (1999) stated that Infertile women have been found to be more neurotic, dependent and anxious than the fertile women, experiencing conflict over their femininity and fear associated with reproduction. Infertility provides the couple a frequently insoluble problem that taxes them physically, financially and emotionally.

John (2004) stated that being labeled as infertile is a devastating experience to the couples. It is like giving sentence to a couple who did not commit any crime.

Nandan (2005) stated that Infertility is a disease of the reproductive system that impairs one of the body’s most basic functions: the conception of children. Conception is a complicated process that depends upon many factors: the production of healthy sperm by the man and healthy eggs by the woman; unblocked fallopian tubes that allow the sperm to reach the egg;
the sperm’s ability to fertilize the egg when they meet; the ability of the fertilized egg (embryo) to become implanted in the woman’s uterus; and sufficient embryo quality. Finally, for the pregnancy to continue to full term, the embryo must be healthy and the woman’s hormonal environment adequate for its development. When any one of these factors is impaired, infertility can result.

**Causes of infertility in female**

1. **Ovarian Factor:** Ovarian agenesis or incomplete development can cause anovulation, tumors, infection, or endometriosis can disrupt ovarian function transiently or permanently.

2. **Tubal Factor:** Partial or complete occlusion of the fallopian tube occurs among a large number of women. Common cause of tubal obstruction is scarring (result of PID).

3. **Uterine Factor:** Scarring (after D and C); congenital malformation, tumor of uterus are possible cause.

4. **Cervical Factors:** Alteration in cervical mucosa caused by either hormonal deficiency, cervicitis interfere with sperm passage.

5. **Vaginal Disorder:** Absence or incomplete formation of vagina prevents vaginal penetration by penis. Inflammation of vagina alters the pH which may destroy, alter or inactivate sperm.

6. **Immunological Reaction to Sperm:** caused by female production of antisperm antibodies.
7. Endocrine Abnormalities: Abnormal function of hypothalamus, anterior pituitary, ovaries, thyroid or adrenal gland can result in an ovulation.

8. Emotional Factors: stress leads to Vaginismus and dyspareunia may be result of physiological disturbance.

9. Drugs: Nearly all ovulation women cease to ovulate while on antineoplastic chemotherapy.

10. Radiation: Ovulation is permanently obliterated by exposure of the ovaries to radiation level greater than 800 rad.

11. Advancing Age: Fertility in women reaches peak at about 20-25 years of age and slowly decline until menopause (Nandan, 2005).

In above causes, disorders of ovulation account for about 30% to 40% of infertility. Tubal and peritoneal factors account for 30% to 40%. Cervical factor constitutes 5% and uterine pathologies constitutes 15%.

**Etiologic Factors in Male Infertility**

**I. Pretesticular causes**

1. Endocrine: Hypogonadotropic hypogonadism.

2. Coital disorders:
   
   a. Erectile dysfunction includes psychosexual, endocrine, neural, or vascular causes.
   
   b. Ejaculatory failure: the causes may be psychosexual, after genitourinary surgery, neural and drug related.
II. Testicular causes

1. Genetic - Klinefelter’s syndrome, Y chromosome deletions and immotile cilia syndrome
2. Congenital - Cryptorchidism
3. Infection - orchitis
4. Antispermatic factors - heat, chemotherapy, drugs and irradiation.
5. Vascular - Torsion and varicocele
6. Immunologic factors
7. Idiopathic

III. Posttesticular causes

1. Obstruction in epididymal (due to infection or congenital)
2. Epididymal hostility - epididymal asthenozoospermia
3. Accessory gland infection
4. Immunologic factors

Malhotra, (2004) stated that in 35% of couples the reason for infertility lies with the male partner. In 35% cases the female factors are responsible, in 20% couples it is a combination of both and, finally, in 10% cases the cause of infertility is idiopathic.

Mahajan (2004) stated that idiopathic infertility is defined as the inability of a couple to conceive in the absence of any detectable abnormality.
Lashen (2004) expressed that idiopathic infertility causes great distress to couples, who often find it harder to bear when a cause cannot be found.

Many infertile women, whom no such organic defect can be discovered, are the ones among whom emotional disturbances may be acting to prevent conception.

But some 15 percent of couples in India, as elsewhere, are infertile. The population of India being over one billion, the number of infertile couples could be well over 20 million: much more than the entire population of Australia and New Zealand (Bhargava, 2009.)

Domar, Zuttermeister, Seibel and Bensen (1992) stated that it is widely accepted that emotional factors may be a contributory cause of infertility. It has been theorized that emotional tension may reduce fertility through numerous pathways: tubal spasm, disturbed ovulation, decreased coital frequency, and even impaired spermatogenesis. It has also been suggested that infertility itself evokes emotional disturbances. When these secondary emotional tensions in turn impede the normal functioning of the reproductive system, a vicious cycle of infertility-emotional tension - infertility is created.

Chakravarthy (2009) stated that apart from scientific interventions all the couples need sympathy and psychological
support. Therefore, at each step, counselling should be considered as an integral part of infertility treatment.

Appleton (1997) stated that counselling help the couple to drain out all those feelings of anxiety, hate, anger and dissatisfaction. Sometimes, it is enough that there is somebody who has the time and understanding and who is able to listen effectively – to allow the emotions to pour out.

The role of counselling is to help people process their emotions and to arrive at a situation with which they can feel comfortable and live a peaceful life. We need continually to remind ourselves that we are treating ‘people who are infertile’ rather than just treating ‘infertility.’ That distinction should underline the point that care goes beyond clinical treatment. Often, couples will bring with them other issues, which may be a direct result of their infertility or totally unrelated to it; however, these too must be our concern if and when they come to the surface. Counselling can be the means that will enable the people to uncover those emotions which usually people try to hide and resulting in dissatisfaction and distress.

Demyttenaere (1998) stated that a mind-body program that teaches relaxation responses as well as cognitive-behavioral interventions is effective in reducing the stress levels, perhaps, it should be offered to infertile patients.
Shakhar (2009) stated that the idea behind Cognitive Behavioral Therapy (CBT) is that cognitions and thoughts affect our emotions. Some of these thoughts are automatic and erroneous. They increase our anxiety, stress, and depression. Learning to recognize such irrational thoughts, challenge them and restructure them into more truthful and positive thinking can improve our mood and well being. The CBT diminishes stress, anxiety, depression and self-blame and increases joy in everyday life. An example of a thought, common to couples with infertility, is “I’ll never have any children.” One way to challenge this thought is to restructure it as “This process is very painful for me but there is a good chance that I will eventually have children."

Eliciting relaxation response: The relaxation response is a physical state in which bodily and emotional responses to stress are diminished. It can be brought about by various techniques that can be learned quickly in a group setting or individually. These techniques can include refocusing on calming visual imagery, different muscle groups, on breathing or on words or phrases. Elicitation of the relaxation response can reduce the symptoms such as heart rate, respiration rate, body temperature, and headaches.

Braverman (2009) stated that infertility treatment has come a long way since the days when psychogenic reasoning placed the blame for the woman’s fertility on the infertile woman herself. Modern medicine has begun to consider the mind-body connection
in the treatment of infertility. Treatment for infertility has evolved to include an understanding that the most effective treatment involves treating both the mind and the body.

Behavioral medicine offers many strategies for coping with and managing stress. Employing a variety of strategies, the intervention will focus on introducing techniques such as cognitive behavioral strategies, relaxation techniques, and guided imagery.

Donnell (2007) stated that Meditative and body-awareness techniques, such as breathing and progressive muscle relaxation, are used to facilitate greater identification between emotional distress and its impact on physical and physiological function. Men have reported using deep-breathing techniques in particular to help slow their reaction time, decrease irritability, and reduce muscle tension during periods of stress and emotional arousal from infertility as well as other causes.

**Need for the Study**

“My infertility is a blow to myself-esteem, a violation of my privacy, and assault on my sexuality. a final exam on my ability to cope, an affront to my sense of justice a painful reminder that nothing can be taken for granted. My infertility is a break in the continuity of life. It is above all a wound. To my body, to my psyche, to my soul”.
The description given above is the quotes of a woman undergoing infertility therapy which eloquently expresses the anguish of an infertility woman.

Demographic and Health Survey (2008) revealed that, in India, 8% women have primary infertility among the women in the age group of 15-49.

Griffin and Clapp (2000) expressed that Infertility represents a life crisis to the couple experiencing it; suddenly they are forced to face a life goal that is blocked.

Connell (1999) quoted that Infertility is a psychological crisis. Psychological supports that assist the patients to remain active and focused on the problem can minimize the negative impact of infertility. The infertile women often report that the experience of infertility is more devastating than any previous life experience, including divorce or the loss of a parent.

Appleton, (1997) quoted that “When are you going to have a baby?” is the question the couple dread and try to avoid, to such an extent that they will avoid social events in order to protect themselves from distress. Couples suffering from infertility are continually reminded of their situation. Each month, when the woman menstruates she experiences a sharp reminder that yet another month has gone by without any luck.
Table 1: Percentage of Women with Primary Infertility

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<tr>
<th>Country</th>
<th>15-19 years</th>
<th>20-24 years</th>
<th>25-29 years</th>
<th>30-34 years</th>
<th>35-39 years</th>
<th>40-44 years</th>
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<th>Total 25-49 years</th>
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Our society is based on the family unit. The stigma of infertility often leads to stress and tensions developing within the family. Couples avoid their close friends. It can lead to mental disharmony, to marital and sexual problems, to divorce and, in some cultures to ostracism from the wider family unit. The suffering is very real. Infertility can dominate the lives of the infertile.

Mahlstedt (2000) expressed that in infertility each month there is hope for 2 weeks and grief for the next 2 weeks. A cyclical roller coaster is created, with hope on the upturn and depression, anger, and guilt on the downside.

Griffin and Clapp (1999) stated that Infertility involves loss of an image of bearing and raising a biologic child of experiencing pregnancy, of control over one’s life, and loss of privacy in terms of sexual intimacy and of having one’s body being probed and tested. Infertility is, in fact, the death of a dream, which involves a typical grief response: surprise, denial, isolation, anger, guilt, sadness, and resolution.

In most cultures, children are regarded as an extension of self, as bearers and continuers of the family name and tradition as well as an expansion of one’s own hopes, aims, and strivings. The inability to procreate is thus always perceived as a denial of basic rights, an injustice, and a disappointment, sometimes bordering on grief.
Sherrod (2004) has quoted that infertility has multiple aspects, including physical, emotional, financial, social and psychological effects. Although most health care professionals are more aware of problems related to physical aspects of infertility, the difficulties and needs that arise from the emotional aspects are often more significant for couples. Thus, it is crucial that health care professionals, particularly, nurses, understand these needs.

Counseling is a way of working with people in which we try to understand their feelings and help them to make decisions. People in distress have always turned to others for support, advice, and other forms of help (Hobbs and Sanders, 2000).

Kumar (2009) stated that unexplained infertility may be applied to a couple that has failed to establish a pregnancy despite an evaluation uncovering no obvious reason for infertility. It is commonly accepted that, approximately, 15% of couples will be determined to have unexplained infertility.

Newton, Sherrord and Galvac (1999) conducted a prospective study in university-affiliated teaching hospital in Canada. The sample comprised of 1,153 women and 1,149 men, who were on infertility treatment. Participants’ infertility-related stress was assessed by written questionnaire using the fertility problem inventory. The results showed that women scored, significantly, higher on scales of global stress (F=174.2, P<.001), Social concern (F=26.6, P<.001), Sexual concern (F=31, P<.001),
and need for parenthood (F=17, P<.001) compared to men. Both men and women reported male infertility to be more stressful than female infertility. Both men and women, facing male infertility, reported higher global stress and more social and sexual concerns than men and women experiencing female infertility.

Pottinger et al., (2006), in Jamaica, conducted a study to identify the gender differences in coping responses and the association between the coping and psychological distress in couples undergoing in-vitro fertilization treatment. All the 52 participants were offered psychological counseling prior to beginning in-vitro fertilization treatment and they were invited to complete the questionnaires on their coping responses, self-reported distress and socio-demographic data. Gender differences in coping included more women than men keeping others from knowing their pain (P<0.01) and more women ruminating about what they did wrong to cause the infertility (P<0.01). These strategies were also associated with reports of heightened distress (P<0.05).

Venkatesan (2009) conducted a study, in Chennai, to assess the impact of positive therapy upon the stress levels among infertile women. The Method used was randomized clinical trial. The total sample was 120 (60 in experimental group and 60 in control group). The results have shown that in the experimental-group the Posttest stress level (M=164.30, SD = 19.03) was less than the pretest stress level (M = 247.51, SD = 23.14) and the
difference was, statistically, significant at .001 level. In the control group there was no statistical difference between the pre test (M= 246.65, SD = 22.18) and Posttest (M=247.06, SD = 21.89) stress levels. The results can be attributed to the effectiveness of positive therapy and has direct implications for nursing practice.

Gribben (2002) stated about an andrology laboratory, which was investigating the reasons for male infertility in UK. During one interview, a patient expressed concerns about his sexual relationship with his wife. Initially, he described his concerns about infertility but as the nurse used her counseling skills, the patient was able to voice his psychosexual difficulties. This was the first time in 5 years of marriage, the patient talked about his situation to another person. The Research nurse was able to combine good communication and counseling skills to facilitate the patient’s need to face his problem, which enabled him to make a constructive decision about his need for further help.

Golden et al., (1999), focused the point that the counselor listens, offers the patient an opportunity for emotional release, and again helps to mobilize the adaptive ways of coping.

Kerr (1999) conducted a survey, to know the experience of couples who have had infertility treatment. A questionnaire was sent to 2000 couples who have had infertility treatment. A total of 980 questionnaires was completed and returned. The results
showed the fact that one, in five, experienced suicidal feelings and one, in three, had strained their relationship. Totally 71% said they would request for counseling, if it were offered free.

Domar, Slawsky, Dusek, Kessel and Fraizinser (2000) conducted a study to determine the efficacy of two different groups psychological intervention on viable pregnancy rates in women experiencing infertility of less than 2 years duration at Boston. The design used was experimental. The total sample was 184 women with infertility of which 63 were randomized into the control group, 65 into the support group, and 56 into the cognitive-behavioral group. The results showed that 55% of the cognitive-behavioral group and 54% of the support group participants experienced a viable pregnancy, in contrast to 20% of the controls. Women who participated in a group psychological intervention had significantly increased viable pregnancy rates compared to women who did not participate in any psychological intervention.

Caffiera, Florina, Krauseb and Pooke (2001) conducted a study to evaluate the impact of a six month cognitive behavioral therapy for infertile couples at Marburg, Germany. Seventeen idiopathic infertile couples participated in the study. The method used was experimental. Pre to post treatment changes in the therapy group were compared to changes in two control groups. The therapy group showed an improvement in sperm
concentration, a reduction in thoughts of helplessness and a decrease in marital distress.

Infertility produces an overwhelming emotional turmoil among the couples. To overcome this emotional turmoil, many techniques are available like counseling the couple and providing them with relaxation therapies like deep breathing exercises, meditation and progressive muscle relaxation. Hence, the researcher undertaken the present study.

**Statement of the Problem**

A Study to Assess the Stress and Coping Among Women with Primary Infertility and to Evaluate the Effectiveness of Counseling and Relaxation Therapy among the Couples with Primary Idiopathic Infertility Attending Infertility Clinic at Jipmer, Pondicherry.

**Objectives of the Study**

**Phase I**

1. To assess the stress level of women with primary infertility.
2. To identify the coping ability of women with primary infertility.
3. To correlate the stress level with selected variables such as years of married life, social support, literacy level and employment.

**Phase II**

4. To evaluate the effectiveness of counseling and relaxation therapy on stress level among the couples with primary idiopathic infertility.
5. To evaluate the effectiveness of counseling and relaxation therapy on coping level among the couples with primary idiopathic infertility.

6. To evaluate the effectiveness of counseling and relaxation therapy on knowledge on concepts of conception among the couples with primary idiopathic infertility.

7. To evaluate the effectiveness of counseling and relaxation therapy on conception rate among the couples with primary idiopathic infertility.

8. To correlate the mean knowledge score with selected variables such as age, education and occupation.

**Operational Definitions**

**Stress**

Stress is the non-specific response of the body to any demand upon it (Selye, 2002).

In this study, it refers to the extreme emotional disturbances experienced by the women with primary infertility as measured by the infertility stress scale (Newton, 1999.)

**Coping**

Coping is a process that a person uses to manage events that he or she encounters, receives, and interprets as stressful. (Anthikad, 2000).

In this study, it refers to the ability of the women with primary infertility to adapt to the stress of the infertility as measured by the infertility coping scale (Schmidt, 2005).
**Women with primary infertility**

Women with primary infertility refer to those who have never conceived (Dutta, 2000).

In this study, it refers to the women, who has never conceived from the time of menarche.

**Effectiveness**

It refers to the extent to which a desirable result is achieved.

In this study, it refers to the reduction in stress, increase in coping ability, knowledge on conception and ability to conceive after counseling and relaxation therapy.

**Counseling**

It is a way of working with people in which we try to understand their feelings and help them to make decisions (Salhan, 2004).

In this study, it refers to the process by which the researcher patiently listens to the problems of the couples with primary idiopathic infertility and assist them to explore their problems and clarify their doubts and help them to make their own decision. In addition to this, the researcher gives information about stress coping strategies, lifestyle management, clarifying myths and encourage positive thinking.

**Relaxation Therapy**

It is one of the treatment modalities which promotes a sense of physical well-being, and reduces stress and anxiety.
In this study, it refers to deep breathing exercise, meditation and progressive muscle relaxation which is taught by the researcher to the couple with primary idiopathic infertility.

**Couples with primary idiopathic infertility**

It is earmarked to those couples who have undergone complete basic infertility workup and in whom no abnormality has been detected and still remains infertile (Dutta, 2000).

In this study, it refers to the couples who are not able to conceive in the presence of men with normal semen analysis and women with normal ovulation and patent fallopian tubes

**Assumptions**

1. Women with primary infertility have more stress.
2. Women with primary infertility have poor coping ability.
3. Counseling and relaxation therapy help in reducing the stress among couples with primary idiopathic infertility.
4. Reduction in stress will help to improve the conception rate.

**Hypotheses**

1. Stress level of the couples with Primary idiopathic infertility after intervention will be less than the stress level of the couples before the intervention.
2. Coping ability of the couples with primary idiopathic infertility after intervention will be better than the coping ability of the couples before the intervention.
3. The knowledge on concepts of conception among couples with primary idiopathic infertility after intervention will be higher than before intervention.

4. The percentage of women who conceive will increase among women with primary idiopathic infertility after attending the counseling and relaxation therapy.

**Conceptual Frame Work**

Conceptualization refers to the process of developing and defining abstract ideas (Polit and Hungler, 1998). A conceptual model provides logical thinking for systematic interpreting of the observed data. The model also gives direction to relevant questions on phenomena and points out solutions to practical problems. The conceptual framework adopted for the present study is based on Ludwig von Bertalanffy's General Systems theory.

According to this model, a system is a set of objects together with a relationship between the objects and their attributes. The objects constituting the system behave together as a whole. Changes in any part affect the whole. In the General Systems theory, the main concepts are input, throughput and output. Input and output are processes by which a system is able to communicate and react with its environment. Input can be defined as any form of information, energy that enters into the system through its boundary. Output is any energy, information or matter that is transferred to the environment. Throughput is a process that occurs at some point between the input and output.
process. It enables the input to be transferred in such a way that it can be used readily by the system.

**Input**

It is the form of information (or) energy that enters into the system through its boundary.

In this study input refers to the couples with primary idiopathic infertility with their stress attend the intervention. Intervention includes counseling (listen to their problems, clarify their doubts, emotional support, providing lifestyle management tips, clarifying myths, encouraging positive thinking, teaching stress management strategies), relaxation therapy (deep breathing exercise, meditation, progressive muscle relaxation) and the education on concepts of conception.

**Throughput**

It is the process that occurs between the input and output. In the throughput phase, the couple with primary idiopathic infertility utilizes the knowledge of lifestyle management, positive thinking, stress management strategies and practices the relaxation therapies (deep breathing exercise, meditation and progressive muscle relaxation) and understand the process of conception.

**Output**

It is any energy, information or matter that is transferred to the environment. In the output phase, the couple’s stress level reduced, coping level increased, knowledge on concepts of conception improved and conception rate increased significantly.
Figure 1: Conceptual Framework Based on Ludwig Von Bertalanffy’s General Systems Theory

Input (Pretest + intervention)

Throughput

Output (Posttest)

Feedback (not included in the present study)

Stress level
- Low
- Average
- Moderately high
- Very high

Coping level
- Low
- Medium
- High

Knowledge on conception
- Inadequate
- Moderately adequate
- Adequate
- Achieved
- Not achieved

Conception

Existing level of stress, coping and knowledge on conception

Counseling
- Listen to the problem
- Clarifying the doubts
- Providing Emotional support
- Clarifying myths regarding infertility
- Encouraging positive thinking
- Teaching stress management strategies
- Deep breathing exercise
- Meditation
- Progressive muscle relaxation

Life style management

Positive thinking

Stress management strategies

Relaxation therapy
- Deep breathing exercise
- Meditation
- Progressive muscle relaxation

Edudation on concepts of conception
- The process of conception

Utilizes the knowledge of:
- Life style management
- Positive thinking
- Stress management strategies

Understanding the process of conception

Achieved

Not achieved