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REVIEW OF LITERATURE

A literature review involves the systematic identification, location, scrutiny, and summary of recorded materials that contain relevant information on a research problem. It is an important part of scientific approach and is carried out in all areas of scientific research. Literature in any field forms the foundation upon which all future work must be built. It helps the researcher to develop a thorough understanding and insight into previous work and the trends that have emerged. It also provides insight into the methods, measures, subject and approaches used by other researchers and help in integration of the research problem.

The chapter is divided into two sections. First section deals with the theoretical framework related to infertility and adoption. Second section deals with important studies related to psychosocial aspects of infertility, adoption and variables determining quality of life of couples, namely psychological stress, social adjustment and quality of marital life before and after adoption.

2.1 THEORETICAL OVERVIEW

2.1.1 INFERTILITY

2.1.1.1 Human Sexuality, Marriage and Family

From ancient periods to modern era the fabric of society is woven by marriages producing new families and children who are nurtured, educated, and developed by a mother and a father into productive members of that society, who then reproduce in kind the next generation. To the degree that a society or civilization can reproduce good healthy families, it will prosper. A husband is until
otherwise proven the acknowledged father of his wife’s offspring, with recognized rights and duties that may vary from society to society but always exist in some form. And a wife is a woman who can expect a certain specified sort of help from her husband in the raising of offspring. All other functions of marriage borrow from or build upon this one. Marriage is and has been for millennia the institution that forms and upholds for society, the cultural and social values and symbols related to procreation. That is, it establishes the values that govern the transmission of human life to the next generation and the nurturing of that life in the basic societal unit, the family (Blankenhorn, 2008).

In the book of Genesis in the Bible, God commanded Adam and Eve to be fruitful and multiplying. Ever since human kind have tried to heed that command. All religions consider procreation as the solemn function of marriage. Some religions view procreation as the sole purpose of sexual intercourse. Furthermore, parenthood is seen as a way to purge sexual intercourse of its sinfulness. According to some religious teaching a woman must bear children to reach heaven or to free souls from bondage or to purge herself from sin. Some other religions teach that a marriage can be annulled if a woman is found to be infertile. Religious influences over fertility and hence impaired fertility account for many of the socio cultural attitudes displayed towards childless couples (Bobak, Jenson and Zalar, 1989).

It is found that throughout history man has in different ways tried to control his fertility. Men and women have called upon higher powers, performed ritualistic ceremonies, used ‘natural drugs’ and during the latest decades used modern
medicine to an increasing extent. This is true both for the problem of preventing pregnancy and for the problem of wanting but not being able to have a child. In both cases men and women are engaged as social and sexual beings and in both cases they want to plan their reproduction (Moller and Fallstrom, 1991).

Bobak et al., (1989) pointed out that sexual identity begins at conception. Thereafter both intrauterine and extra uterine environmental influences play their part in the realization of each person’s sexual potential. Thereafter biophysical, psychological, socio cultural and ethical factors contribute to the moulding of an individuals’ sexuality. We are born into a sexually oriented world and from birth onwards we assume socially defined sexual roles that reflect the basic pattern prescribed by the society and these sexual roles are learned informally through being part of social group. Development of a concept of sexual role and sexual identity begins at an early age and continues as a series of developmental task throughout a persons’ life span.

2.1.1.2 Infertility and Prevalence

Infertility is the inability of a couple to achieve conception after one year of unprotected intercourse (six months if the woman is over age 35years) or the inability to carry a pregnancy to a live birth. Accordingly 20% of the couples in the world are subfertile. 50% of these couples eventually conceive, 10 -15% are benefited by Artificial Reproductive Technologies (ART) and the remaining 35-40% are considered as sterile or infertile after undergoing different types of treatment for a few years. Covering 27 countries including India, the incidence of infertility rate is 12-13.5% among married couples. The estimated infertility rate in
Kerala is still high, 20% among couples. Approximately 40% of infertile couples have female factor of infertility, 40% male factors and 20% a combination of both or of unknown aetiology (National Family Health Survey, 2007; Kumar, 2007; Unisa, 1999).

Moller and Fallstrom (1991) reported that the inability to conceive and bear a child comes as a surprise to 10-15% of healthy adults. It is difficult to be denied of the experience of pregnancy, birth, parent hood and the expression of love through the care and nurturing of another human being. Disturbance in ones’ sexual self concepts is often experienced in infertility. Ten to fifteen per cent of couples wishing to have a child do not succeed within one year, and can therefore be included in the group of infertile couples. Consequently the number of persons affected by this problem is very high.

Men and women are affected by infertility in different ways that are rooted in the roles accepted for themselves. Modern woman in particular is exposed to societal myths which continue to imbue reproduction with a sacred status. Non reproductive women are portrayed as unfulfilled and ‘less’ of a woman or unfeminine. Similarly, the infertile men may feel emasculated or ‘less of a man.’ These beliefs may severely compromise sexual performance as well as involve changes to self image (Klock, 2008; Morse and Van Hall, 1987).

The ability to procreate is typically assumed as a given right. Infertility is usually not uncovered until a heterosexual couple attempt conception and find difficulty in doing so. Given this pattern of discovery, infertility is usually revealed as a couple problem, not merely a problem of the individual. Whether
one or both spouses are implicated as possessing the organic problem, both will be affected by the inability to conceive children (Repokari, Punamaki, Kalio, Vilska, Poikeus, Sinkonnen and Tulppala, 2007).

Reproduction and the desire of man to set up a family is one of the natural needs of humans and one of the important pillars of social life. Infertility not only has a reproduction aspect but mental and social aspects as well. Not all men and women want children, but for those who do want, infertility represents a major life crisis with considerable psychological effects. The problem of infertility concerns many central aspects of life. It is vital to us as man and woman to parenthood, to the meaning of life or existential questions, to the ability to cope with frustration and disappointment, to the relationship between man and woman and the connection between body and soul at a psychosomatic level. In other words, psychological, physiological, environmental and interpersonal relationships can affect each other and infertility cannot be simply considered as organ malfunction, rather, other aspects are also important which require further attention (Ramzanzadeh, Noorbala, Abedinia and Naghizadeh, 2009).

According to Repokari et al., (2007), infertility is defined as 12 months of appropriately timed intercourse that does not result in conception. Approximately 16% of couples in the United States have difficulty having a child. This appears in part because of the trend for some women to delay childbirth until the mid to late thirties and the associated decrease in fertility after the age of 35 years. The prevalence of infertility varies in different parts of the world, and is estimated to be around 10%-15%. It means that one in every six couples throughout the world is
faced with infertility which is psychologically threatening and emotionally stressful. Approximately 10% of married couples in the United States experience difficulty in conceiving over a year’s time and about 1.26 million women receive medical advice or treatment for impaired fertility in a given year. The lifetime incidence of infertility is estimated to be between 10% and 17% and 17.6% of women aged 20–54 had experienced involuntary childlessness.

Impaired fertility affects 7-17% of all couples. In United States, Isolated male factor infertility occurs in 20% of all infertile couples, while couples with combined male and female infertility comprise an additional 30-40% of the total infertile population. The traditional definition of impaired fertility is the inability to conceive after at least one year of adequate sexual exposure, when no contraceptive is used. It is also the inability to deliver a live infant after three consecutive conceptions. A contemporary definition is the inability to conceive or carry to live birth at a time the couple has chosen to do so. Impaired fertility testing is usually not being done until couples have experienced at least one year of unprotected intercourse. Impaired fertility is primary if the woman has never been pregnant or the man has never impregnated a woman. It is secondary if woman has been pregnant at least once, but has not been able to conceive again or sustain a pregnancy. However for anxious people or the older couples (women over 30 years and man over 40 years) a six month effort failure is sufficient before fertility studies are begun. The following time frame during which 100 couples having unprotected intercourse might expect to become pregnant has been mentioned. Approximately 25 of 100 couples will conceive in the first month. 35 additional couples will
conceive in the second through the 6th month. 20 couples will conceive during 7th through the seventeenth month and an additional 10 couples will conceive during the 18th through the 24th month. When or if conception will occur for the remaining 10 couples remain unknown (Monga, Alexandrescu, Bogdan, Katzseth, Murray and Ganiabs, 2004); Bobak et al., 1989).

The National Survey of Family Growth states that approximately 60 million women of reproductive age, about 1.2 million, or 2%, had infertility related medical appointment within the previous year and an additional 13% had received infertility services at some time in their lives. Recent improvements in medication, microsurgery, and In vitro fertilization techniques make pregnancy possible for more than half of the couples pursuing treatments. Contrary to the myth that infertility is a problem involving primarily women, 25% of infertile couples have more than one factor that contributes to their infertility, such as tubal blockage, abnormal ovulation, low sperm count, or endometriosis, and the male partner is either the sole cause or a contributing cause of infertility in 49% of couples. Infertility is a life crisis for the couple and the incidence in Kerala is estimated as 20%. The magnitude of the problem is well understood with high prevalence and cultural importance (National Family Health Survey, 2007).

2.1.1.3 Causes of Infertility

According to Takefman, Brender, Boivin and Tulandi (1990) fifteen percent of couples of child bearing age are infertile and there is a growing volume of evidence to suggest that this percentage is increasing due to a number of sociological and medical factors.
The base rate of infertility among women has remained the same but the absolute number of women in the reproductive years has increased. Approximately 40% of infertile couples have female factor infertility, 40% male factor, and 20% a combination of both or infertility of unknown etiology (Klock, 2008; Shamila and Sasikala, 2011).

Much of the current infertility is thought to be due to delayed onset of marriage and childbearing, an increase in sexually transmitted diseases, and environmental toxins. Some men or women might already know or suspect that they are infertile; for example if they have undergone cancer chemotherapy in the past or have had endometriosis. For others, the failure to conceive a child is a surprise. Many couples do not realize that in about 40 percent of infertile couples, a male factor contributes to the problem (Malkah, Mirium and James, 1997).

A. Physical Components of Infertility

Male infertility

Male factor infertility is involved in up to 50% of all cases of infertility. Because infertility is often considered to be a woman’s problem, men’s reproductive difficulties have been less well studied than women's. However, in 40-50% of couples, male factors are partly or wholly responsible. In men, varicocele, ductal obstruction, endocrinopathies and infections are the most common treatable factors. Usually male infertility is manifested by the low count of the sperm. Quality of sperm is also responsible for diminishing fertility rates in male. As far as the male is concerned, there may be problems with sperm quality or quantity. There may be problems related to sperm production where the testicle
fails to produce sperms. There may be abnormalities with sperm function where the sperm would not penetrate the egg. There is also the issue of vasectomy reversals. Reversal of a vasectomy can be very good, especially if it has not been in place for very long. But men can also form antibodies against their own sperm, which can cause sperm to function abnormally (Malka et al., 1997).

Many studies from the United States have suggested that infertility is often associated with sexual problems in men. One such study demonstrated a high rate of erectile dysfunction, depressive symptoms, and dysfunctional sexual relationships among male partners of infertile couples. It is also found that male partners of infertile couples experience increased sexual stress related to infertility, lower sexual satisfaction, and worse erectile function and subtypes of male infertility significantly increase the risk of erectile dysfunction. Based on these data, existing evidence suggests that male factor infertility may indeed be a risk factor for sexual problems in men. Male factor infertility underlies approximately 30% of infertility in couples seeking treatment; of which 10% is due to azoospermia (James et al., 2009; Klock, 2008; Moller and Fallstrom, 1991).

Anti sperm auto antibodies may be the cause of infertility in 20% of infertile couples when all other male female factors are corrected. The presence of sperm auto antibodies in the semen specimen may denote prior or current infection, testicular injury, vasectomy reversal, or various idiopathic factors (Chachamovich, Chachamovich, Ezer and Passos, 2010).
Female Infertility

The most common biological causes for infertility in women are ovulation problems, fallopian tube damage, endometriosis, polycystic ovaries and aging. There may be disorders related to ovulation, so a woman may not ovulate on a regular basis, or not ovulate at all. Blocked Fallopian tubes is another cause and this also raises the issue of prevention. Sexually transmitted diseases like Chlamydia infection is a very common cause of tubal infertility. The main reason of female infertility also can be PID or pelvic inflammatory disease, an infection in the pelvic area, especially around or at the site of fallopian tube. Other causes include sexually transmitted diseases, unsafe abortions, appendix rupture, and pelvic tuberculosis (Malka et al., 1997; Moller and Fallstrom, 1991).

Klock (2008) found that endometriosis is another important cause of infertility in women where endometrial lining being shifted into the area outside the uterus and expanding with each menstrual cycle. It can further block the fallopian tubes restricting the egg to move from the ovaries and obstructs the release of the egg. Besides these factors various kinds of hormonal disorders in the hypothalamus or pituitary can also cause infertility in women. It is said that excessive exercises, anorexia nervosa, and medical situations like failure of kidney can diminish fertility rate in women.

B. Psychological Component of Infertility

‘Psychogenic infertility’ is often defined as those cases of infertility where one cannot find any organic or medical explanation. Many infertile couples do not have any obvious somatic, neurological or endocrine problems. Several psychological
factors can influence this chain of communication. It has been known that amenorrhoea can follow such emotional reactions as fear and depression. In concentration camps and in war amenorrhea is common. Dramatic changes in life associated with stress can also cause amenorrhoea and can cause spasm in the fallopian tubes. Emotional disturbances, neurotic personality, and conflicts of gender identity can lead to infertility (Moller and Fallstrom, 1991; Malstedt, 1985).

The medical investigations to determine the cause of a couple’s infertility evoke further stress reactions. Therefore in a circular fashion the stress of the infertility investigations can increase negative emotional reactions which could possibly, via biochemical or behavioral channels, decrease probabilities of conception. Anxiety has a detrimental effect on fertility and that anxiety reduction is associated with increase in pregnancy rates. There is substantial evidence to suggest that the stress associated with infertility can contribute to its perpetuation, while a reduction in stress can improve reproductive functioning. Anecdotal reports of infertile couples who conceived during or after holidays or after adoption or decision to adopt are consistent with this hypothesis. The question that rises in this regard is as follows: Do the emotional and psychological problems lead to infertility? Or does the infertility lead to emotional and psychological problems? In both cases it is obvious that infertility is a crisis that lead to a psychological imbalance especially when a possible and quick solution is not found for it (Takefman et al., 1990; Hassani, 2010).

Moller and Fallstrom (1991) reported that mainly catecholamines, prolactin, adrenal steroids, endorphins and serotonin that have influence on ovulation are influenced by stress. In some cases, infertility can be caused by sexual
dysfunctions like vaginismus, dyspareunia and retrograde ejaculation. These difficulties are caused by psychological factors, which thereby act as indirect causes of the infertility. Because of the close connection between sexuality and reproduction, a fear of parenthood can be found behind the sexual problems and thereby the infertility. In the study 22 out of the 28 couples who approached an infertility clinic just one year after marriage became pregnant without any treatment, but after starting of medical examinations. This can be interpreted as a sign of released tension when turning to the doctor and having him/her ‘take over the case’.

Causative factors among the men in sterile couples are very seldom discussed. It is found that four disturbances in the man influenced by psychological factors are impotence, ‘faked’ ejaculation, retrograde ejaculation and oligospermia. The first three disturbances are sexual functions, which in a very direct way influence the possibilities of conception. Oligospermia is usually seen as a result of organic defects in the spermatogenic process. Many forms of stress including psychological can affect male fertility and reproduction. The autonomous nervous system and the adrenal hormones participating in the classic stress response also affect the reproductive system. Evidence exists that mild to severe emotional stress depress testosterone and perhaps interferes with spermatogenesis in the human male. Sterility in the male can be due to disturbed spermatogenesis resulting from emotional stress. If psychosocial impact is associated with worsened fertility outcomes, it would have significant implications for the treatment of infertile men. The relationship between psychological stress and semen quality among men undergoing In vitro fertilization indicated that there is significant decline in semen quality and demonstrated an inverse relationship between
semen quality and psychological stress (Kedem, Bartooov, Mikuhncer and Shkolnik, 1992; Mc Grady, 2008; James et al., 2009; Valerie and Hart, 2002).

It has been hypothesized that psychological stress alters levels of cortisol, prolactin, and progesterone which in turn have an adverse effect on pregnancy outcome. It is well established that sustained hyperprolactinaemia leads to amenorrhoea in women and reduced potency in men. Transitory peaks of serum prolactin in women have also been associated with infertility. Even within the normal range of prolactin in women with regular menstrual cycles, the mean plasma prolactin levels in conception cycles in women with no history of infertility are lower than in non conception cycles. There is evidence that psychological factors, in particular stress alter prolactin concentrations. Correlations are calculated between prolactin values and stress scores and significant positive correlation is found. The study assessed the physiological and psychological aspects of anxiety during IVF and pregnancy outcome and found that levels of self reported anxiety, prolactin, and progesterone increased significantly from baseline to the time of egg retrieval during IVF (Harlow, Fahy and Talbolt, 1996).

According to Speroff, Glass and Kase (1994) there are many psychological causes for infertility. Depressive syndromes and anorexia nervosa can suppress the menstrual cycle by interfering with the hypothalamic pituitary gonadal axis. Smoking, alcohol and drug use can affect sexual behaviors and may also decrease fertility through disturbances in neurological or endocrine functions. Sexual problems such as vaginismus, erectile disorders, and low sexual desire also interfere with conception. Stress can increase levels of corticotrophin releasing
hormone and decrease levels of luteinizing hormone. Estrogen and progesterone interact with and are affected by neurotransmitters via receptors in the brain.

It is found that voluntary childlessness develops from cold nurturance experiences. Women with unexplained infertility reported less warm childhood family experiences than did those with organic problems. This differential finding suggests that adverse childhood family relationships may contribute in some way to the development of infertility without a clearly defined organic cause (Morse and Van Hall, 1987).

Personality characteristics, psychosomatic stress responses and course and outcome of treatment are investigated in 40 women undergoing In vitro fertilization (IVF). Women with subtle cycle disturbances have lower pregnancy rates in IVF than women with normal cycles. Personality characteristics and psychosomatic stress responses play a role in the etiology of this effect. Trait anxiety levels tend to be higher in women with subtle cycle disturbances. The state of anxiety level in the early follicular phase, which is correlated with a negative outcome in IVF is higher in women with cycle disturbances. Prolactin concentrations are always higher in women with cycle disturbances and this could be an important finding for the pathophysiology of infertility. This is explained with the help of a schematic model in the study (figure-2) (Demyttenaere, Nijs, Evers and Koninck, 2004).
Figure 2. Schematic Model on causes and consequences of infertility (Demyttenaere et. al., 2004).
It is found that for majority of sample in a study of women selected as candidates for artificial insemination by donor (AID), delay in ovulation is found during the stressful months during which AID was planned. After the decision to postpone AID however, normal ovulation is regained spontaneously. Similarly another study found certain sperm parameters poorer in samples of sperm provided by husbands at the time of egg insemination for In vitro fertilization (IVF) compared to samples obtained during a relatively stress free period five weeks prior to IVF. Finally a recent study found that women with higher trait anxiety levels took longer to achieve pregnancy through AID compared to those with significantly lower anxiety levels (Takefman et al., 1990; Speroff et al., 1994).

In brief although infertility has an effect on a couple’s mental health, different psychological factors have been shown to affect the reproductive ability of both partners. Proposed mechanisms through which stress could directly affect infertility involve the physiology of the depressed state such as elevated prolactin levels, disruption of the hypothalamic-pituitary-adrenal axis and thyroid dysfunction. Depression is associated with abnormal regulation of luteinizing hormone which in turn regulates ovulation. Changes in immune function associated with stress and depression may also adversely affect reproductive functions. Since stress is also associated with similar physiological changes, this poses the possibility that a history of high levels of cumulative stress associated with recurrent depression or anxiety may also be a causative factor of infertility. Therefore ignoring the psychological factors related to infertility and merely considering these problems as medical will create huge obstacles in understanding
human beings as an integrative whole. There is no doubt that infertility like other physiological phenomenon has social and psychological aspects and it is classified in the realm of behavioural sciences (Hassani, 2010; Deka and Sarma, 2010).

2.1.1.4 Infertility Treatment

Assisted reproductive technology (ART) has been used in the United States since 1981 and includes In vitro fertilization (IVF), Gamete Intra Fallopian Transfer (GIFT), and Zygote Intra Fallopian Transfer (ZIFT). The reports reveal that the majority of ART procedures are IVF (71.8%) and yet the number of pregnancies resulting from all ART procedures numbering approximately 71,000 is only 29% (NFHS, 2007).

Various drugs can be used to control ovulation in infertile females. Clomiphene Citrate, an ovulation inducing agent is a weak estrogenic substance that binds to estrogen receptors and increases gonadotropin releasing hormone. Women who are cycling normally will have an increase in follicle stimulating hormone when using this drug. Side effects such as vasomotor flushes, abdominal bloating, breast discomforts, gastrointestinal disturbances, and mood swings can be distressing. Human Menopausal Gonadotropins (HMG) which are purified forms of gonadotropins are the most direct and effective method of inducing ovulation. Unfortunately they are very expensive, lead to multiple gestations and may be associated with mood swings. Human Chorionic Gonadotropins, gonadotropin releasing hormone agonists, and bromocriptine are other drugs used to regulate ovulation. Although concerns have been raised about the risk of ovarian cancer with the use of fertility drugs, so far no long term data definitely confirm this
association. However infertility itself seems to be associated with increased risk of ovarian cancer (Repokari et al., 2007).

Treatment for male infertility may include injecting washed sperm from husband, partner, or donor into the cervix or uterus. It is estimated that about 30,000 births per year result from donor insemination. Intra Cytoplasmic Sperm Injection (ICSI) the injection of a single sperm into an oocyte, is being used more frequently and safely and has met with increasing success. Availability of this technique seems to be greatly decreasing the demand for donor insemination (DI) (Malkah et al., 1997; Inhorn, 2003).

In women, the term ‘Assisted Reproductive Technologies’ (ART) generally refers to all techniques in which ova are retrieved from the ovary to treat infertility. During In vitro fertilization (IVF) retrieved eggs are fertilized outside the body with sperm and the resulting embryos are transferred back into the uterus. This procedure has several variations. Ova or sperm may be donated by a third party. A surrogate mother may carry the pregnancy for infertile couples with structural defects of uterus. Success rates defined as the birth of a live baby have increased to about 20-25% per treatment cycle. There are a number of effective treatments available for improving fertility conditions in women. As physical causes for infertility have been clarified, new treatments have become available including fertility drugs, In vitro methods of fertilization, and collaborative reproduction with ova and sperm donors. Treatment of infertility is based on dealing with the underlying causes. Ovulation problems are treated by inducing ovulation with medications. Damaged fallopian tubes if appropriate are repaired surgically.
Embryos created during In vitro fertilization can be transferred into the uterus to bypass blocked fallopian tubes. Sperm can be injected directly into the uterus avoiding cervical mucus if antibody presence is suspected. Endometriosis is treated with medications or with surgery. Aging oocytes may require replacement with donated ova from younger women. Sexual dysfunctions are best treated with cognitive and behavioral methods either individually or in couple therapy (Malkah et al., 1997).

2.1.1.5 Theories Related to Infertility

A theory is an abstract generalisation that presents a systematic explanation about relationships about phenomena. The overall purpose of theory is to make scientific findings meaningful and generalisable. Theories allow researchers to knit together observations and facts into an orderly system (Polit and Hungler, 2007). The purpose of theories is to better understand previous conditions that led to a thought or behaviour, interaction or phenomenon.

Theoretical approaches to infertility and infertility counseling have historically been based on a specific theoretical perspective or specific principles of theories adopted and applied to infertility. The basic premise of the applied psychology is the use of psychological principles and theories to overcome practical problems. Recent interest is in developing specific theoretical frameworks that contribute to a greater understanding of the psychosocial impact of infertility, relevant issues, treatment modalities and beneficial interventions to minimise psychosocial distress and trauma. These theories embody principles for explaining,
predicting and controlling phenomena related to infertility and adoption. (Covington and Burns, 2006).

**Psycho Analytical Theory of Identity**

The foundation of psychogenic infertility theories was Freudian psychoanalytic approaches in which psychological disorders were thought to be due to an individual’s unresolved conflicts or unconscious defense mechanisms that resulted in sterility. According to this theoretical approach, infertility alters an individual’s sense of self by creating or exacerbating feelings of deficiency, hopelessness and shame. Both infertile men and women experience altered self concept and self image due to infertility though they experience it differently. Women often feel inadequate, deficient or failing to fulfill personal and societal roles, while men feel inferior, ashamed and angry. It is a loss experienced as a narcissistic injury as well as a symbolic loss of self. The core concept of this theory is that individuals with infertility must integrate it into their individual identity, sense of self or self definition. In doing so, individual is able to move beyond a personal identity of oneself as infertile and transcend the experience through overcoming circumventing or reconciling the identity of self as infertile. (Olshansky, 1987).

Two concepts, namely identity and crisis, form the theoretical background of infertility. The concept of identity is central in psychology. It can be seen in relation to different theories about personality, development, self-consciousness, roles and social life. It can also be seen as a link between social and individual psychology. One of the most important components of identity is the experience of
similarity and dissimilarity to others. The individual’s identity is based on the qualities of these experiences. Ericson (1963) defines identity as a ‘dialectic concept’. He focuses on the development of identity. Theory contains both psychoanalytical and socio psychological concepts. It is out of the interaction with social and cultural patterns that the individuals’ identity is developed. According to Mead (1974) identity is composed of internalized values, attitudes and behaviors. The identity is developed in interplay with other individuals and groups by means of symbols and the taking of roles.

In phenomenological and existential psychology, interest is focused on the total life situation of the experiencing human being, starting from the individual’s present way of relating to the environment. In the present we are free to choose what the future will be like, which is the source of existential anxiety according to Kirkegard (1951). Gender identity, an individual’s experience of her or himself as a woman or man, is part of the identity. The gender identity develops through interactions with parents and other human beings. It is also influenced by cultural aspects and by the growth and development of the body. The norms of society as well as identification with one’s parents create the opinion that living together in couples and having children is natural and desirable for most people. According to Veevers (1980) there are two ‘fertility norms’ in our society; either all couples should have a child or all couples should at least want to have a child.

**Crisis Theory**

A traumatic crisis is defined as a life situation in which an individual’s earlier experiences and reactions are not sufficient to understand and handle the
actual situation. The situation demands maximal adjustment (coping) and if one can learn new and appropriate reactions and coping mechanisms the crisis will lead to development of an individual. The emotions that accompany a traumatic crisis can be described in different ways. The description has an existential base being grounded on the emotional experience of being a human being. Everybody has a basic need of a kind of ‘existential structure’ and everybody seeks a position for ‘being human’, a place and function in the world. Everyone has a need for affinity with individuals and with groups. This is true also for affinity in the sense of ‘belonging to’ and ‘referring to’. To belong to ‘the men’, ‘the women’, ‘the parents’ or ‘those who will become parents’ are examples of such ‘belongings’. All ‘belongings’ are of course not as important for everyone nor on all occasions. (Schultz, 1988).

The affinity with one’s partner, with one’s own sex (gender identity), with the function of parenthood and with the wanted child are threatened in infertility. As a consequence man or woman may appear not being a good partner. For his or her ‘existential structure’ it is important that a person experience what is happening as meaningful in one aspect or another. In a situation of traumatic crisis one seeks the meaning in what is happening. ‘Why-questions’ arise in both the medical and the existential sense. Both are elements in the search for order and meaning and in the ability to predict events in life. This also includes attempts to plan and control life. When the need of being defined in positive terms is threatened, there is a great risk for self-rejection and depressive self-contempt (Woollett, 1985).
**Self discrepancy theory**

According to Kikendall (1994) self discrepancy is an important factor in addressing women’s emotional reactions to infertility. As per this theoretical approach, infertility is a personal identity crisis in which a woman experiences conflict between her ideal sense of self as mother or woman and her real sense of self as infertile.

In considering the impact of infertility among women, infertile women have right to have control over their bodies. They have been commonly blamed for conditions that have caused them personal distress and been socialised to value themselves primarily for their childbearing roles.

**Stress and Coping theories**

Taymor and Bresnik (1979) are the first to refer infertility as a stressor and crisis involving interaction among physical conditions predisposing to infertility, reactions of others and individual psychological characteristics.

On applying stress and coping theories to infertility, it is noted that infertility is characterised by dimensions of what individuals find stressful like unpredictability, negativity, uncontrollability to both gender specific infertility and specific individual distress within cultural contexts. Though men and women do not appear to differ in feelings of stigma regarding infertility, men with male factor infertility seem to be more stigmatised by infertility regardless of the diagnosis. In short, infertility as an externally invisible ‘defect’ increase feelings of inferiority, differentness and spoiled identity.
Family Systems theory

As per this theory infertility is an intergenerational family developmental crisis preventing reproduction through life cycle stages. It is a crisis of family developmental genealogy in which infertility jeopardizes and compromises family's generative potential. (Daly and Kerry, 1999).

Family system theory is applied to infertility in variety of contexts like cultural factors, diagnosis of genetic disorders, family building alternatives and the impacts of family 'secrets' particularly like third party reproduction. The theory is integrated into infertility counseling, diagnosis, and treatment as exemplified by the identification of resiliency as an individual and family strength, potentially facilitating adjustment to infertility for couple and family.

Phase or Stage theories

Stage theory of infertility

This theory described the experience of moving from the prediagnosis to the post treatment as passages based on three concepts. (1) engagement (2) immersion (3) disengagement. The stages within this concept are (1) experience a dawning of awareness (2) facing with new reality (3) having hope and determination (4) intensifying treatment (5) spiralling down and letting go (6) quitting and moving out (7) shifting the focus. (Blenner, 1990).

Phase theory of infertility

According to Diamond and Kezur (1999) there are five distinct phases of infertility. They are (1) dawning (2) mobilisation (3) immersion (4) resolution and (5) legacy.
In the dawning phase couples become aware that they have a problem in conceiving and seek medical assistance. Mobilisation is the first step to medical arena when couples begin with diagnostic testing. Immersion is the most complex one and the demanding phase, begin as couple undergo more testing and treatment. Late in this phase couples may face family building alternatives like donor gametes, donor embryos or adoption. The resolution phase consists of three overlapping subphases. These are ending medical treatments, acknowledging and mourning the loss, and refocussing on adoption or childlessness. The legacy phase encompasses the aftermath of the infertility experience including marital and sexual problems which may emerge as consequence of infertility, particularly when partners have not adequately handled the significant losses.

**Infertility counseling model**

This model is based in large part on the needs and recommendations of human fertilization and embryologic authority. The model incorporates the grief counseling model of Kubbler Ross (denial, anger, bargaining, depression and acceptance). Read’s infertility counseling model involves five stages. (1) diagnosis (2) managing feelings (3) planning action (4) understanding medical treatment and (5) awaiting treatment outcomes. The stages of this model may be repeated as individual or couple adaptations to the loss. (Read, 1995).

**Psycho Neuro Immunology Theory**

**Immunity and Male Infertility**

Research on the role of immunity in reproduction is at a very pioneering stage. Direct and indirect measurement methods are being developed and with that
development, it is becoming recognized that humeral and cell mediated immunity play a significant role in male infertility. The male reproductive tract especially in the area where spermatogenesis (creation of sperm) takes place is protected from penetration by the blood-testis barrier (Jones, 1985). It is discovered that the reproductive tract is not as protected as was once thought and that junctions are weak in the rete testis and efferent ducts and these locations are sites for entrance of immune mediators into the sperm compartment.

The latest theories suggest that the immunological mechanisms within the seminal plasma serve to keep the ‘environment’ in the optimal state needed for successful fertilization. However there are cases where the mechanism erroneously regards sperm as ‘non self” cells and arouses an auto immune reaction (Smith and Barratt, 1989). The inhibiting immunosuppressive system’s function is to control such destructive immunostimulatory reactions. The testis area is so protected from its own immunity that it is considered an ‘immunologically privileged’ area allowing not only sperm to develop but many other non sperm cells as well. As a consequence of this reduced immune activity, harmful infectious organisms like bacteria and viruses can thrive and can be protected from immune destruction. Thus it becomes clear that successful balance between these two immunoregulatory systems is required in order to provide the optimal environment for sperms to develop. A breakdown in this delicate balance can lead to over reactance of the immune system in either the immunostimulatory or the immunosuppression direction leading to fertility problems (Koehler, Berger, Smith and Karp, 1982).
One way of estimating a breakdown in the immunoregulatory mechanism is to observe two kinds of non sperm cells that are found in the semen plasma. Bacteria serve as an indirect indication of either a lowered immunostimulatory protection system or as an activated immunosuppressive mechanism. (Alexander and Anderson (1987).

**Immunity and Female Infertility**

‘Psychogenic infertility’ is found in those cases of infertility where one cannot find any organic or medical explanation. The group defined as ‘psychogenically infertile’ has decreased during the last decades from approximately 50% to between 5 and 15% of all infertile persons. Many infertile couples who do not have any obvious somatic, neurological or endocrinological problem do not have any obvious psychological abnormality either. On the other hand not all infertile couples with somatic disturbances are without psychological disturbances. Biological and psychological factors interact with endocrinology of women (Seibel and Taymor, 1982).

Elstein (1975) points to sexual dysfunctions as direct causes of infertility meaning that many marital problems can be masked as an infertility problem. A theory which is also mentioned by him explains this phenomina. In some cases, infertility is caused by sexual dysfunctions like vaginismus, dyspareunia, retrograde ejaculation etc. These difficulties are often caused by psychological factors which are thereby indirect causes of infertility. Because of the close connection between sexuality and reproduction a fear of parenthood can for
example be found behind the sexual problems and thereby in the cause of infertility (Jemmott, 1985).

It can be stated that both from a clinical point of view and from theoretical considerations that psychological factors can cause infertility. The role of personality factors such as hysteria and aggressiveness, psychiatric factors like neuroticism, orgasmic dysfunctions, inner dynamic conflicts and disturbances in gender are identified to result in infertility (Berger, 1977).

Infertility has both physical and psychological components. So it is important to understand theories related to these, to understand the possible couple dynamics in infertility which in turn help in understanding reactions and behaviour of such couples and in order to provide better care and support for them.

2.1.2 ADOPTION

2.1.2.1 The Process of Adoption

Individuals who believe that their infertility condition is permanent, manifest less distress, perhaps because they are able to reach a resolution and disengage from treatment. One year after the last IVF cycle the vast majority of the couples had decided to go through with an adoption. After treatment had been completed, the couples seemed to have reoriented themselves toward other solutions to childlessness. Out of 80% of couples with an infertility problem who seek medical assistance, only 55% ultimately bear a child. Another 35% will adopt. Adoption is a lifelong commitment and adoption related issues may arise at any point in parents’ or their child’s lifetime. A willingness to learn about the issues and to be open to seeking support if necessary can help to ensure that parents and
children experience happy and healthy family lives. Parenthood is an integral stage in the life cycle of a family. Parenting involves nurturing, care and contribution to the growth of another human being. It is much more than procreation and the biological process of birth. A common reason that leads couples in India to consider adoption is their involuntary childlessness, a condition that gives rise to a complex of emotions for the two individuals involved. These emotions have their roots in the fundamental human need and desire for parenthood. Other motivations to adopt could be a desire to give a home to a child who needs one, wanting a child of the other gender, advanced age and the possibility of genetic problems in one’s biological child. Single parent adoptions are also being done in urban cities. Adoption can be seen as a triad formed by the child, the adoptive parents, and the birth parents whose three corners are connected by organisations such as adoption agencies and children’s homes, to form a complete circle (Sydsjo, Ekholm, Wadsby and Keillberg, 2005).

Among the non institutional services for children in difficult circumstances, adoption is the most recommended form of rehabilitation for persons who are considering parenthood through adoption. Reciprocally it also meets the needs of the orphaned, abandoned and destitute child, since it ensures the child’s right for a family and involves permanency planning. The attitude towards adoption of children in urban India has witnessed a significant change in the last decade. Adoption of an unrelated child into the family is gaining acceptance and more Indian couples are coming forward to adopt. The national adoption programme received an impetus because of the promotional efforts of social welfare
organisations that created awareness in the community about adoption. The focus is now moving from ‘parent centred’ to ‘child centred’ adoptions and from the concept of ‘child for a family’ to ‘family for a child’. Child adoption in India has been a prevalent social practice from ancient times but with a different perspective. Earlier the practice was to adopt a child from one’s own family and a childless couple took it upon themselves to ‘adopt’ and bring up a relative’s child. The primary consideration was the interest of the childless adoptive parents, namely the perpetuation of family name and lineage, protection in old age, performance of death rites and salvation of the adoptive parents. Adoption in this case was influenced by patriarchal values and meant the adoption of only a male child, providing a ‘son to the sonless’. Adoption was not so much for the child or his/her welfare or to give shelter to the child in need, but a social practice that met the needs of the prospective adoptive parents. Intervention of child welfare agencies in the process of adoption began only in the early seventies. The professional intervention led to a systematisation of the process so that the best interest of the child, adoptive parents and the birth parents could be protected. The adoption programme faced significant changes in the eighties at the legal, social and practice levels (Merz and McCall, 2010).

ADOPTION IN INDIA

Legal Implications of Adoption

Supreme Court Judgement of 1984, attempted to regulate Inter-country adoption. The U.N. convention on the Rights of the Child clearly enunciates that every country must first make exhaustive efforts to ensure that the child grows up within his or her own social-cultural milieu and with parents of the same ethnic
origin because this is in the best interest of the child. However when there are circumstances that are compelling and it is not possible to locate suitable adoptive parents within their own country, then the next best option is an adoptive family in another country, and the last resort should be residential or institutional care.

The legislation related to adoption are Hindu Adoption and Maintenance Act, 1956 (HAMA, 1956), Guardians and Wards Act, 1890 (GWA, 1890) and Juvenile Justice (Care and Protection of Children) Amendment Act 2006. Adoptions in India are at present governed by personal laws and therefore only Hindus can avail of HAMA, 1956. Personal laws for Muslims, Christians, Parsis and Jews do not recognise adoption, but only guardianship and hence persons belonging to these communities desirous of ‘adopting a child’ can do so only in guardianship under the provisions of GWA, 1890. This does not provide the child the same status as that of a child born to the family. This act confers only a guardian-ward relationship. The JJ Act is an attempt to provide a legislation to overcome the above lacunae and is applicable to all adoptive parents, so the option is now available to adopt under the JJ Act. The Supreme Court in its landmark judgement of 6th February 1984 laid down certain procedures for processing guardianship petitions in the case of inter-country adoptions. The purpose of the Judgement was to provide certain guidelines, lay down principles, norms and procedures for adoptions with the object of ensuring the best interest of the child and ensure transparency in the process.
Role of Adoption Agencies

Role of Central Adoption Resource Authority (CARA) are to facilitate and promote In-Country Adoption of Indian children, to act as a clearing house of information with regard to children legally free for adoption and to regulate, monitor and develop programmes for rehabilitation of children, to receive copies of applications of foreigners from Enlisted Foreign Adoption Agencies (EFAA) for Inter-Country adoption through a recognised child welfare agency and issue a NOC after necessary procedures, to maintain a list of all Foreign and Indian agencies for adoption, enlisted by the Government of India, CARA., to maintain a liaison with Indian Diplomatic missions abroad in order to safeguard the interests of children of Indian origin by foreigners, to arrange every year a meeting of all recognised placement agencies, ACAs and scrutinising agencies, to receive periodical data from recognised agencies about children available for and children given in adoption, to inspect the Indian recognised child welfare agencies and call for the annual audited statement of accounts, to obtain periodical progress reports of children adopted by foreigners, to mobilise the community and create awareness for promotion of In-Country Adoption, to arrange training programmes for social workers and other functionaries involved in the process of adoption and to initiate action on any activity related to adoption of Indian children.

Role Of Adoption Coordinating Agency (ACA) are mainly related to actively promote in-Country Adoption and undertake activities for the same, to maintain a central list of prospective adoptive parents and children legally free for adoption within its area of functioning, to co-ordinate between member adoption agencies and other ACAs to ensure that priority is given to in-country adoption, to
issue a clearance certificate for children within one month from application to children who cannot be placed in in-country Adoption so as to enable the child to be placed in inter-country adoption and to call for a meeting of member agencies at least once in every quarter of a year.

Role of State Governments are related to control adoption procedures within, to maintain a list of all Children’s Homes registered, licensed, recognised under various laws, to maintain a list of all adoption agencies in the State, to issue recognition to agencies as SAA (Specialised Adoption Agency) for in-country adoption as per procedures laid down, to forward applications of SAAs for inter-country Adoption Recognition to CARA after proper verification within 60 days, to form a State Advisory Committee on adoption, inspection of all adoption agencies periodically, to monitor the performance of all agencies in the promotion of In-Country Adoption, to monitor the adoption programme within its jurisdiction and co-ordinate the activities of placement agencies, ACAs and Scrutinising agencies and to ensure quality standards for child care through inspection and monitoring of all child care institutions (Merz and McCall, 2010).

Adoption in Kerala

Figures available with the department show that there has not been any marked rise in the number of adoptions in the State between 1993-94 and 2003-04 despite the sweeping changes in social attitude towards adoptions. The orthodox cultural specifications in Kerala causes considerable delay even in infertile couples to come to a decision especially related to family dynamics (Social Welfare Department, Kerala, 2005).
The highest number of adoptions is in 2000-01 ie, 297. The number of children adopted during 2003-04 was 254. Out of the 2,745 children adopted during the last one decade, 2,402 are adoptions by persons within the country (1,060 boys and 1,342 girls). The number of children adopted by persons abroad during the period was 343 (164 boys and 179 girls). The State ACA has been involved in coordinating the adoption activities of various licensed adoption agencies, of which there are more than 15 in Kerala. Although while primarily promoting adoptions are within the country, ‘inter-country’ adoptions to countries such as U.S., Germany, and Norway are also arranged, though this number has come down following the crackdown on illegal adoptions of the 1980s. (Social Welfare Department, Kerala, 2005).

Adoption laws

Adoptions take place under the provisions of three laws. The Hindu Adoptions and Maintenance Act 1956, which provides for adoption of Hindu children by persons professing Hindu religion; the Guardians and Wards Act of 1890 which enables non-Hindus to adopt children; and the Juvenile Justice (Care and Protection of Children) Act of 2000 that covers all communities.

All the three acts have been retained because of the flexibility that each one of them offers in tackling specific situations. While the first act gives the adopted child the right of inheritance and succession, the second does not do so, which means that the child and parents are free to sever their relationship on the child attaining 18 years of age. The Juvenile Justice Act is also marked by similar lacunae.
Though the Juvenile Justice Act was crafted to make adoptions simple and easy, much work remains to be done before these objectives are achieved. Usually it takes about two years for a couple to get a child in adoption after completing all the legal formalities (Social Welfare Department, Kerala, 2005).

**Post Adoption Evaluation**

A post-adoption evaluation done among parents who had adopted children through the Kerala State Child Welfare Council, Thiruvananthapuram, revealed that 89% of the adoptive families were Hindus, 7% Christians and 4% Muslims. In the case of 85% parents, the reason for adoption was infertility, 63% of them having undergone treatment for more than 10 years. It had taken more than two years for 60% of the adoptive parents to complete the formalities (Kerala State Child Welfare Council, 2007).

**2.1.2.2 Theories Related to Adoption**

The psychological trauma of diagnosis of infertility creates stress and related behavioural reactions among infertile couples. Later on many trials of treatment modalities and associated physical and psychosocial impacts result in loss of hope and despair among them. They change and try different methods to overcome infertility to have an own child in spite of heavy financial burden of infertility treatment. Slowly after going through all stages of grief, they accept the reality of either remaining childless or adopting a child. On contact with adopted parents and those who live childless, finally the strong wish of at least ‘be like parents’ make couple to think about adopting a child. After years of ambivalence and on support by friends and family support, decision to adopt a child is taken by
the parents. The most difficult phases are in tapering and stopping further infertility treatment and to take a decision to adopt, which consume a large number of years. After adoption also adjustment phase takes its own time to balance themselves with changed dimensions of new challenges. Many theories are related to adoption and the post adoption phenomena and are described below.

**Attachment Theory**

Attachment theory is concerned with the bonding experience that takes place between the child and parent that is based primarily on security, proximity and safety (Bowlby, 1958). He stated that attachment seems to emanate from a biological desire for proximity or closeness. In addition it may meet a survival need, whereby children seek the protection of their caregivers. The type or quality of the bond can have life long implications. Within the child welfare system, attachment theory has significant implications for the work that takes place between the adoption professional and the family. In addition it is relevant to prospective adoptive parents.

The purpose of attachment theory is to ascertain the impact and quality of the bonding relationship between child and parents and to explore the implications of such attachments on future relationships and interactional skills. There is a strong causal relationship between an individual’s experiences with his or her parents and his or her later capacity to make affectional bonds (Bowlby, 1979).

The child that forms a healthy or secure attachment feels free to explore his or her environment and later uses the attachment framework in future relationships even into adulthood. Whereas those that form negative attachment bonds (i.e.
avoidant, ambivalent or disorganized) experience difficulties in initiating or maintaining social relationships and are at higher risk of developing psychopathology. Through such security the child eventually becomes progressively less dependent upon the parent to provide protection and thus developed an Internal Working Model (IWM), a base on which future interactions are built up (Ainsworth, 1978).

Four possible goals for attachment theory are identified. First it is to ‘provide a critical developmental framework for understanding how early and continued close relationships affect the cognitive-affective structures that children use to construct their expectancies, views of the world, and coping strategies.’ Second it is to understand more clearly the psychopathology that can develop among children when there is an ‘absence of a significant attachment relationship, significant distortions in the quality of care, traumatic disruptions or losses of attachment in childhood’. Third, attachment theory would view adult related issues as ‘centering around thoughts, emotions and expectations about affectional relationships (behavioral systems) as being elicited when experiencing stress, injury, or when frightened’. Therefore the ultimate goal would be to assist the adult in reclaiming psychological and physical wellbeing. Lastly attachment theory is a ‘valuable approach for improved services to children in the areas of family (parental caretaking), adoption, foster care and even institutionalized care for children’. This is done by informing practitioners, foster or adoptive parents, and policy makers on the implications of attachment theory to a knowledgeable understanding of client related issues and future intervention or preventive planning (Greenberg, 1988).
The premise of attachment theory has helped practitioners, parents and other caretakers to identify and develop services to enhance the attachment bond of international adoptees. Currently agencies focus on pre adoption counseling and educational services that help to make the prospective parents aware of attachment related issues and the special need status of the child. Through this process parents come to understand the child’s individual attributes, behavioral proclivities, and the necessity of responding to the child’s signals (Broberg, 2000). Parents are also encouraged to explore their own personal childhood attachment representations. Within a counseling setting this allows for behavioral changes necessary to alter mental schemes related to previous attachment dysfunctions. This is crucial when taking on the task of parenting children who have the potential for developing an attachment related disorder.

Attachment theory continues to offer a scientifically rigorous and yet practical framework for making sense of children’s troubled and challenging behaviours and for supporting caregivers in providing them with a secure base. The theory begins by focusing on three important qualities for substitute caregivers: the ability to manage a wide range of feelings, both in oneself and in others; the resolution of any past losses and traumas; and the acquisition of reflective function. Emphasis is then paid to gaining an understanding of the attachment patterns of both children and potential substitute care givers.

Current ideas from attachment theory can help to inform both the selection of substitute care givers and the needs and vulnerabilities of looked after children.
Ways of matching the child with the care givers are thought about, including an analysis of particular areas of vulnerability (Schofield and Beek, 2005).

**Psycho Analytical Theory of Psychological Parenthood**

Freud (1969), the famous Viennese architect of psycho analysis had a significant influence on modern adoption theory and practice. So did his daughter Anna Freud, who carried on her father’s legacy after his death in 1939 and became well known in her own right as a developmental researcher, a child analyst, and a theorist of ‘psychological parenthood.’ Freudian ideas about unconscious desires, erotic instincts, and critical childhood stages in the formation of adult personality and behaviour shaped the way that many parents and professionals thought about adoption, especially its special challenges and potential hazards.

There is a real element of mystery in the illegitimate child’s background which makes such correction by reality either impossible or unconvincing. The convergence of fantasy and real life was the key issue for psychoanalytically inclined clinicians in social work and psychiatry whose interests included adoption. Psychoanalytic ideas crowded the adoption world from World War II onwards. Erik Erikson’s concepts of ‘identity’ and ‘identity crisis’ were among the most widely disseminated Freudian ideas applicable to adolescent development and youth movements in general as well as adoption in particular (Hanson and Rock 1950).

It is not surprising that parents and professionals who took the Freudian family romance seriously favoured adoption policies and practices such as matching that tried to erase natal kinship, hence concealing the emotionally difficult truth that one set of parents had been lost and replaced with another.
Adopted children were at special risk for a range of psychopathologies. Freud’s developmental theory implied that adoptees faced emotional challenges inseparable from the adoption process itself, hence anticipating and helping to bring into being more recent concerns with loss and attachment (Shofield and Beek, 2006).

At midcentury, much was made of the difference between ‘organic’ infertility which had a clear physiological explanation and ‘psychogenic’ infertility, which did not. The first was a tragic consequence of reproductively uncooperative bodies. The second was caused by the mind, and that made it far more sinister. Psychogenic infertility implied that men and women might be terrified of parenthood or hostile to it without knowing it. Women in particular were suspected of frigidity that might do serious harm to children. One of the primary goals of home studies was to explore the psychology of infertility. What did it mean to applicants for adoption? Had they tried hard to overcome it? Had their pain and anger about it been resolved? Such insistent probing surely add to the burden of grief and self blame already felt by many infertile couples. The belief that adoption might cure infertility by inducing pregnancy endured throughout the twentieth century and into the twenty-first in spite of empirical evidence to the contrary. It has been sustained by Freudian theories that blamed infertility on resistance and speculated that adoption could dissolve unconscious barriers to conception and pregnancy. The fact that little or no credible evidence existed to prove this suggests that therapeutic perspectives on adoption were and still are powerful (Hanson and Rock 1950).
Infertility has both physical and psychological components. Adoption help in meeting some of the needs of infertile couples, but carry both positive and negative aspects. So it is important to understand theories related to these, to understand the possible couple dynamics in adoption which in turn help in understanding reactions and behaviour of such couples and in providing better care and support for them directed towards spontaneous future pregnancies.

2.2 INFERTILITY AND ADOPTION - REVIEW OF STUDIES

2.2.1 Infertility as a Life Crisis

Infertility is often ranked as one of the most distressing life crises. The long term inability to conceive a child can evoke significant feelings of loss and depression, feelings of being alone and feelings of anger, guilt and blame. The blame may be directed at the person's body for being ‘inadequate’ or they may blame their partner, doctor or may feel they are being punished for something they did in life. Since in most cases infertility and sexual intimacy and sexual behaviour are linked, intimacy often becomes one of the first areas complicated by infertility. What was once spontaneous and pleasurable becomes a ‘problem to be solved’. Stress on the couple is in part due to the insidious issue of guilt and blame. Couples begin to experience tension and distance in their relationship. In two thirds of cases of infertility, the problem will reside in one partner or the other. Thus guilt, blame, and shame enter in particularly if either partner has a history of promiscuity, abortion, venereal disease, or drug or alcohol abuse. The partner who ‘owns’ the causality of infertility may fear rejection by the fertile spouse. This is of course intensified if the specific answer for the infertility is unknown. Even if a medical
condition is discovered, the couples will feel themselves punished (Klock, 2008; Valerie and Hart, 2002).

A series of losses experienced by the infertile couples include loss of self esteem, relationships, health, and financial security and the emotional reaction to infertility can be so intense. The differences that exist between men and women concerning infertility can sometimes cause mutual problems between the couples. Women usually externalize the problem and show emotional reactions while men seldom express themselves which is sometimes wrongly interpreted as being indifferent. In fact women show stronger emotional response and speak more about the problem than men (Hassani, 2010; Klock, 2008).

In addition to facing problems in the body organs, infertile couples experience psychological problems such as depression, anxiety, aggression, guilt feeling, criticism, fright, feeling of discontent, jealousy, solitude, lack of self esteem, somatic complaints, obsession, interpersonal relationship difficulties, lack of confidence, feeling of being unwanted, lack of flexibility with their partner, and sexual dissatisfaction. Anxiety and depression are regarded as general consequences of infertility and have a significant relationship with infertility. It is found that around 40.8% of infertile men and 86.8% of infertile women had depression and anxiety respectively. Depression is found more common among infertile women as compared to fertile or pregnant women and is higher among infertile women than infertile men (Ramzanzadek, et al., 2009; Daniluk, 1988).

There are three phases in psychological reactions to infertility which are shock and grief due to lack of pregnancy and childbirth, care that failed to appear
due to lack of social acceptability and insight that they have to choose other alternatives like adoption or childlessness. The psychological reactions of the individual are in the form of despair, sadness, denial, sense of guilt, depression, anxiety, disappointment, hopelessness, grief reactions, reduction of self esteem, change in the individual’s mental picture and feeling a change in the self identity comparing with healthy persons, losing life control, changing in sexual identity, marriage maladjustment, sense of disqualification, life dissatisfaction, suicide tendencies and suspicion (Hassani, 2010; Moller and Fallstrom, 1991).

According to Ramazanzadeh, Aghssa, Abedinia, Zayeri and Khanafshar, (2004) infertility is a stressful experience and has high impact on couples’ psychological status. The problems of infertile couples are complicated and they are influenced by different factors such as sexual differences and the cause and length of infertility. Infertility and its treatment create a major and prolonged crisis for the couples and it is a stressful condition that creates heavy psychological trauma. Moreover, since having a baby has a socio cultural significance, the infertile couples try hard to find a diagnosis and treatment for their infertility and it is obvious that because of physical, psychological and economic impacts of the treatments, they face more tension. The psychological problems of infertile couples range between 25% to 60% and problems such as lack of self esteem, sense of bereavement, threat, depression, feeling of guilt, anxiety, frustration, emotional pressure and some sexual problems are common among such couples. They may become intensely angry when they see people who they believe undeserving achieve a pregnancy with little or no effort. They may feel very angry when they hear a pregant
woman display disgust or unhappiness with her pregnancy, when they see women with an unwanted pregnancy seeking an abortion or when they observe a mother or father abusing their child. During the first three years of married life infertility is accompanied with the symptoms such as depression, anxiety, lack of self esteem, sexual impotency and marriage maladjustment.

It is found that the anger among infertile couples may be accompanied by feelings of regret about marrying their spouse. The phase of disorganization and despair last for a minimum of six months. Anger and guilt from the prior phase continue and outbursts of rage will increase. There is concern about being out of control, as the person experiences frequent nightmares. Infertile couples show levels of psychological suffering similar to that of patients who have serious diseases like cancer or heart attack. A study which assessed the impact of infertility revealed that infertile women experienced greater stress related intrusive ideation with levels similar to psychiatric patients (Tarabusi, Valpe and Facchinetti, 2004; Miller et al., 1998).

The prospect of infertility can be constructed as a personal loss that poses major challenges to the individual. These include the thwarting of a key life goal, with possible feelings of failure, impaired relations with one’s partner and family and a loss of the sense that one can successfully plan, predict, and control one’s future. Such concerns are likely to be experienced as particularly stressful in a society that highly values childbearing (Miller, Mischel, Schreiber and Mangan, 1998).
**Research with Men**

It is reported that problems of fertility for men can be experienced as ‘failure as a man’ and therefore an assault on one’s masculinity. Men’s masculinity may be challenged and cause feelings of loss of power and potency which may cause either occasional episodes of impotence or conversely promiscuity. Men used seeking social support, escape-avoidance, planful problem solving and positive reappraisal to a lesser degree than their partners. While women may feel more able to express feelings and display sadness and anger directly, men may struggle with their own feelings and feel quite helpless in trying to comfort their spouse and be frustrated at not being able to solve their infertility. On the male side of the picture, men are traditionally seen as the financial providers of the relationship, think of themselves as responsible for protecting the family, and typically feel more threatened expressing themselves. The man is often overwhelmed by the intensity of his partner’s emotions and often lack the skill of being able to express himself emotionally (Ramezanudeh et al., 2009; Valerie and Hart, 2002).

In a study by Laura, Peronace, Boivin and Schmidt (2007) it is found that men diagnosed with male factor infertility experience more suffering than men with infertility due to other causes. It is socially unfavourable to be diagnosed with male factor infertility resulting in secrecy surrounding diagnosis, sometimes to the point that women take the blame for the couples’ infertility. When treatment is not successful all men showed increased suffering in the form of decreased mental health, increased physical stress reactions, decreased social support and increased negative social stress over time. These findings indicate
that involuntary childlessness is difficult for all men and is not dependent on with whom the cause lies.

Men who had not had a child or whose wives were not pregnant after one year of infertility treatment showed significantly higher values of stress and on the indices of aggression and hysteria than the other men. Even the value on the index of depression was higher, but not significant. Men with suspected male factor infertility reported increased self blame, lower self esteem and increased social isolation compared to men without suspected male infertility. Men have reported lower overall life satisfaction, heightened distress and higher treatment related stress after being diagnosed as responsible for the couple’s infertility. A recent study revealed a reduction in sexual desire and satisfaction in men after infertility diagnosis regardless of the cause of infertility (Repokari et al., 2007; Laura et al., 2007; Moller and Fallstrom, 1991).

It is reported that men who perceive themselves to be the sole contributor to the couples’ infertility feel less in control of their lives, less able to meet their goals, and more personally feel responsible for their fertility problems. Furthermore this group of men had lower sexual satisfaction, more feelings of sexual failure, and less enjoyment of sexual activity. Interestingly the group of men who did not know their diagnosis and men with isolated male factor infertility appeared to feel the greatest social impact. On an average, men with male factor infertility have lower self esteem and greater feelings of stigma and loss compared to men without male factor infertility. Furthermore, men who are diagnosed as responsible for the couple’s infertility reported lower overall life satisfaction,
heightened distress, and higher treatment related anxiety after being diagnosed as the party responsible for the couples’ infertility (James et al., 2009).

Chachamovich et al., (2010) and Hassani (2010) in their study have found that men seldom express themselves which is sometimes wrongly interpreted as being indifferent. In fact men do not show stronger emotional response and will not speak more about the problem like women. Quality of life predictors in men have described that educational level, age, marital relationship, previous In Vitro Fertilization attempts, and duration of infertility are associated with lower scores in mental and emotional domains.

James et al., (2009) in their study further discussed that infertility may place significant stress on a man’s social and marital relationships. Couples often feel that they lose control of the fertility process and over their own bodies. Infertility stress and unsuccessful treatment can result in significant negative marital satisfaction. Male partners among infertile couples who feel that they are solely responsible for the couple’s infertility are at a higher risk for sexual, emotional, and psychological strain relative to men without this belief. Male factor infertility is an important clinically significant predictor of sexual and personal strain independent of age, race, religion, household income, educational level, and prior fertility characteristics. Sexual and personal quality of life of the male partner among infertile couple is influenced by the perceived source of the fertility problem and a lack of a clear infertility diagnosis.
**Research with Women**

Valerie and Hart (2002) in their study have found that the mood response among women to the diagnosis of infertility has been linked to models of bereavement or grief, depression and anxiety or stress. Women experienced measurable levels of grief and depression before, during, and after infertility treatment. Neither age, years of infertility, nor financial impact of infertility influenced the reported levels of grief or depression. The experience of loss is noted in terms of loss of trust in one’s body, expectations of controlling their world, and of being fertile. Infertility is an experience of multiple losses and unlike bereavement the losses are invisible. These losses include self esteem, security, control of self, and faith. Study results reveal that distress reported in women undergoing treatment for infertility increases over time and peaks between the second and third year.

Women may question their femininity and sexual attractiveness due to the linkage in our society of child bearing and femaleness. The experience of anxiety has been linked to the experience of grief; more anxious patients having greater difficulty negotiating the stages of grief when treatment procedures are not successful. It is found that more infertile women suffered from personality instability as compared to fertile women and this instability is more prevalent among infertile housewives than infertile working women. The depression may be cyclical and coincide with phases of the treatment cycle, or it may be acute and precipitated by a specific event, such as a family holiday or the announcement of a family member’s or friend’s pregnancy (Ramezanzadeh et al., 2009; Valeri and Hart, 2002).
Since women usually initiate the treatment process, this may reflect a
general reluctance of men to enter into treatment for a variety of reasons. First they
may fear that the diagnostic process will confirm a male factor diagnosis which is
often associated with a shame response for men. Men can fear that an infertility
diagnosis will threaten perceptions of their masculinity and sexual virility. As
mentioned previously, men can experience so much shame with being infertile that
fertile wives will adopt the infertility stigma to protect their husbands (Berg and
Wilson, 1995).

Valerie and Hart (2002) further discussed that since it is the woman who
get pregnant and gives birth, she has historically been the first to get attention and
help. Much of the treatment, literature, and support are even directed towards the
female partner. But this picture has been changing and the man has now been
getting some needed attention. Accordingly he often feels helpless to make the
situation better for his partner and as a result may give off messages that his
partner is too emotional or too sensitive, hoping that this will reduce the intensity
of her emotions. However often the women consider this as criticism of her coping
ability rather than as an expression of his fears.

It is reported that women experience infertility as being more stressful than
men. Depression, anxiety and health complaints are more commonly seen in
infertile women than men. Women experience marital and sexual relationships
less positively than men after infertility diagnosis and during infertility treatment.
Women with idiopathic infertility have been reported to be more anxious and
dissatisfied with themselves than women with an identified cause of infertility.

There is a negatively affected gender identity among infertile women, no matter whether they had diagnosed female infertility or not. Infertile women react more strongly to infertility than men and are more vulnerable than men to mental health problems, to low self-esteem and to marital dissatisfaction. For some women obsessive thoughts and ruminations about infertility infiltrate their daily lives and threaten their ability to function at work or at home. The ruminations are an attempt to understand and control the guilt they feel. Women’s vulnerability has been attributed to their intense desire for motherhood and it has been shown in previous studies that infertility has a smaller emotional impact on men than on women. For the female partner, she may go into denial about the infertility and convince herself that the next pregnancy test will be a joyful one (Repokari et al., 2007).

Those women who strongly endorse traditional feminine role characteristics have been reported to suffer more depression, powerlessness, and loss of psychological wellbeing. The traditional feminine sex role in which wifely duties and motherhood are the important central aspects might be devalued in modern western society, although reproduction retains a sacred status. Not surprisingly, conflicts about these role aspects may develop particularly in those women who feel pressured from community and partner to fulfill these against their own conscious or unconscious desires. These conflicts are hypothesised to contribute to somatic disorders, which could include unexplained infertility or reproductive failure following organic repair (Morse and Van Hall, 1987).

Valeri and Hart (2002) reported that intense agony is experienced by infertile women. The words from a woman experiencing infertility seem to
summarize all of these findings: “I cannot conceive or bear children; I am infertile. My infertility is a blow to my self esteem, a violation of my privacy, an assault on my sexuality, an 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 pain is intense.”

2.2.2 Psychological Impact of Infertility Treatment

In the past two decades, advances in reproductive medicine have made the treatment of infertility a highly successful prospect that has given hope and success to thousands of couples. The high tech reproductive technologies have associated psychological and ethical issues that must be addressed by the infertile couples. Therefore it is important for the health care professionals to understand the psychological issues surrounding infertility. Children are viewed as a source of fulfilment and happiness for the couples and therefore they work hard to obtain a child and feel they have a right to have children. From this vantage point the seeking of infertility treatment for years and undergoing expensive, psychologically draining treatments can be understood as a result of the twenty first century view of the value of the child (Klock, 2008).

About fifteen years ago most infertile couples looked adoption as a way of enlarging their families because infertility treatments were known not to be very successful. Within the last decade however, new technology has dramatically improved the success rate of such treatments (Malkah et al., 1997).
Repokari et al (2007) found that infertility is regarded as a major life crisis that has the potential to threaten the stability of individuals and relationships. During recent years the development of assisted reproductive technology (ART) methods have made parenting possible for a substantial number of infertile couples. For the majority of infertile couples successful treatment outcome results in improvement in emotional wellbeing. Infertility affects six million American women and their partners, about 10% of the reproductive age population. Recent improvements in medication, microsurgery, and assisted reproductive technology (ART) make pregnancy possible for more than half of the couples.

Valerie and Hart (2002) in their study described emotional torturing experienced by infertile couples. Once the couple enters the medical system, they typically experience themselves treated like objects of study, not as humans in pain. Their sex life becomes a scientific experiment, no longer an expression of love. It also becomes an act that is always going to be judged as a success or a failure, not as an intimate act. It is anything but intimate since it must be done by a set of rules established by physicians and like children they must report in to get their grade. Only the stakes are so much higher. It may involve husbands giving painful injections to their wives or racing to a hospital with semen. It means women being plied with hormones that make them feel like someone else. It consumes all aspects of their lives.

The psychological reactions of couples on infertility treatment depend on various factors including age, stage of development, basic personality structure,
coping strategies, ego defenses, preexisting psychopathology, causes for the fertility problems, motivations for pregnancy and raising a child, environmental supports, culture and religion, and the skill and empathy of the medical staff delivering the care. Reactions often include depression, guilt and blame, helplessness, anger and feelings of loss of control. Couples went through various phases when involved in infertility treatments. The first is numbness, when the person described feeling ‘zombie’ like reaction. During this time of dissociation the dominant thought is that it cannot be true and actual physical signs such as loss of appetite, difficulty in concentrating, and problems with memory may occur (Klock, 2008; Malkah et al., 1997).

It is demonstrated that couples’ baseline psychological profiles could identify those at high risk for poor adaptation to the investigations. Furthermore baseline anxiety levels are found to be related to achievement of pregnancy at six months follow up. The findings suggest that the infertility investigations do have a negative impact on couples which could in turn influence pregnancy outcome (Tarabusi et al., 2004; Takefman et al., 1990).

Domar, Clapp and Slawsby (2000) conducted a study exploring the relationship between psychological stress (high versus low stress) and outcome (pregnancy versus no pregnancy). It is believed by patients and even some clinicians that if a couple will just relax they will get pregnant. There is the implicit assumption that psychological stress may prevent a woman from attaining and maintaining a pregnancy. An exploratory study results revealed decrease in anxiety and depression among a group of women who underwent a ten session relaxation
programme with a subsequent 34% pregnancy rate among the group attendees. Psychological stress is found related to IVF outcome in the group of women who kept daily ratings of stress throughout an IVF cycle. Higher success rates of infertility treatment are reported among subjects who underwent a mind body intervention for relaxation and a professionally led support group compared with women in a control group who received no psychological intervention. The study found that cognitive behavioral treatment used is efficacious on the emotional aspects of infertility, improves sperm concentration, and reduces thoughts of helplessness and marital distress among infertile couples.

Treatments often resolve the problem but since success rates per treatment cycle are low the problem can span months and years and create many difficulties. Stress arises both from the threat to the major developmental milestones of parenthood and from undergoing treatment, which in itself is time consuming and emotionally draining. Infertility is considered a low control situation in the sense that there is very little a woman can do to affect the outcome of her treatment with the exception of adherence to the treatment regimen which is of high cost and still does not assure success. Though not much physically debilitating, infertility has a great impact on many domains of life (Benyamini et al., 2008; Blenner, 1992).

It was found in a study that fertility problems consist of both medical and emotional aspects. While the physical impact of the medical treatment is considerable couples considered emotional aspects more stressful. For most couples, unsuccessful IVF or ICSI treatment meant the end of further medical treatment possibilities. This does not however signal the end of emotional suffering
(Verhaak, 2005). Psychosocial issues also can be sources of anxiety for infertile couples. Some watch expensive treatments consume their savings. Some must travel long distances to infertility clinics on days determined by the woman's ovulation cycle. It is not a surprise that both men and women feel themselves losing control over their lives and their schedules (Takefman et al., 1990).

Miller et al., (1998) reported that treatment itself typically entails focus on one’s infertility status which can exacerbate negative feelings about the possibility of childlessness and its personal consequences. Stress may result not only from the failed treatment procedure itself, but from the increasing expectancy that the couple may ultimately remain childless. In addition unlike other chronic health problems infertility management involves many treatment decisions, which may activate feelings of confusion and helplessness.

Helping to relieve the burden of an infertile couple can often be difficult because couples frequently feel a strong sense of urgency regarding their treatment. One way for a couple to reduce stress is to temporarily escape the day to day spectrum of infertility. Even a two months break from the strict regimen of keeping ovulation charts and precise records is helpful in reducing stress. Nonetheless couples are rarely receptive to taking such vacations voluntarily especially when they are concerned about the woman becoming less fertile with each passing month. (Taylor, 1995).

The complicated process of infertility has emotional and affective dimensions for the individuals. The stressful condition of the infertile period, the type of treatment, defense mechanisms of individuals for coping with the problem,
emotional, psychological and social supports, the stressful condition created by the high cost of modern treatment procedures called Assisted Reproductive Technology (ART), continual visits to physicians, continual references to infertility clinics which are sometimes situated in distant cities requiring long journeys, doing costly tests, wasting time, explaining personal life details to the physician, planning a definite sexual intercourse timetable by the physician, job absence for following up the treatments, frustration caused by the inefficiency of treatment procedures and thinking of never having a child are too much for the couples to bear with. In addition the pressures of family and society to have a baby as soon as they could, not be able to disclose infertility related problems to others, continuous comparison with fertile couples, maladjustments, possibility of separation and divorce, not having a complete knowledge about the causes of infertility, having the feeling of being a victim, not having a sufficient knowledge of the new treatment methods and not accepting the new methods such as having a child from other person’s uterus or sperm or using a rented uterus are considered factors leading to conflicts, anxiety, depression and disturbed marriage relations among couples. In most of the times when the infertile couples are referred to clinical centers for obtaining required modern services, they see that the therapy service only aims at the treatment of their physical problem and their psychological problems faces detached handling (Valerie and Hart, 2002).

Each failed cycle can lead to grief reactions and a sense of loss, which for many couples can be quite profound. Like ovulation inducing drugs ART has led to an increase in multiple gestations. Because of the risk to the mother and fetuses
selective reduction (decreasing the number of fetuses by abortion) may become a choice that couples need to make. For many couples, such discussions are very difficult and stressful. If the woman miscarries the couple is also likely to experience considerable grief. Couples may keep trying for many years despite failures and large financial burdens. The grief following a failed IVF cycle or pregnancy loss can be of considerable magnitude and differs from some other mourning reactions in being a very personal loss for both the woman and her partner. Since the advent of pelvic ultrasonography and the visualization of ova as well as fetuses makes earlier bonding possible and renders losses more profound (Malkah et al., 1997).

Klock (2008) conducted a survey among couples after they had completed one cycle of IVF and as an indirect measure of how stressful the procedure is, asked couples if they would undergo IVF again. She found that 38% of the couples reported that they would not undergo IVF again because it is too expensive, the success rate is too low and they were unwilling to undergo the emotional pain of the procedure once again. In addition, 18% of women reported that infertility had a negative impact on their marriage. Loss of financial security is associated with infertility treatment. Infertility treatment in countries that do not mandate insurance coverage of infertility treatment can be extremely expensive especially with one cycle of in vitro fertilization (IVF). An associated problem is the concern about job security for women. Because women are often the primary focus of the evaluation or treatment they often have to miss considerable amount of work. This may place their job in jeopardy. In addition they often fear telling their employer
the reason for their absences because the employer may assume the treatment will be successful and the woman will be leaving her job. If the employer assumes that the woman will be leaving her job to have a child the woman may become vulnerable to being laid off or dismissed.

It is found that women reported more depression before and after infertility treatment than men and 34% of the women in her study rated IVF as very stressful. 66% of women reported that they are depressed after the procedure and 13% of the women reported suicidal ideation after an unsuccessful IVF. Looking at variables that would predict the development of psychological distress among infertile couples, it is found that 14% of women had clinically significant levels of anxiety and 24% had clinically significant levels of depression. They found that both post-IVF anxiety and depression are best predicted by pre-IVF trait anxiety, depression, and childlessness (Klock, 2008; Verhaak et al., 2005).

On investigating the psychological state of 102 infertile Japanese women undergoing in vitro fertilization and embryo transfer, it is found that they experienced measurable levels of grief and depression before, during, and after treatment. With regard to attitudes toward treatment, three items showed a significant association with anxiety level: degree of positiveness, outlook on pregnancy, and agitation with treatment. This indicates that a woman with a higher level of anxiety tends to have a more pessimistic outlook on the possibility of successful pregnancy and to feel higher agitation with treatment (Klock, 2008).

Studies on emotional adjustment before, between and after different consecutive treatment cycles would provide insight into the course and intensity of
emotional response to treatment. In addition the studies would make it possible to identify those factors that contribute to the course of emotional adjustment. This would enable couples at risk of developing severe emotional problems as a result of one or more unsuccessful treatment cycles to be identified in time and offer counselling. (Verhaak et al., 2005; Takefman et al., 1990).

Berg and Wilson (1995) found that the middle stage of treatment is a time where functioning returned to normal as the couple adjusted to the treatment process but still maintained hopefulness because there were a number of options to pursue. When repeated treatment regimens prove unsuccessful and the treatment process become more protracted with options that have lower success rates, more financial cost, and are more time intensive then chronic stressors can erode the personal and marital resources such that a more pronounced distress reaction would be observed. It is in this stage that the couple may begin grieving their inability to have a biological child. However this grieving process can be complicated by uncertainty about when to terminate treatment. With the burgeoning array of alternatives in reproductive technologies it is increasingly difficult to find the absolute point at which ‘everything has been done’.

Since many men do not cope with the stress of infertility with approach strategies like communicating with others and obtaining information about infertility, pursuing treatment may be odd with their more typical avoidant coping style. Further the performance demands on men early in treatment may be perceived as quite stressful including frequent semen analyses, examinations conducted following coitus, and ‘intercourse on schedule’. Sexual dysfunctions
have been noted in infertile men following some of these procedures like post coital examinations. As treatment progresses the man may be able to become more distantly involved since most of the diagnostic and treatment options involve women. (Berg and Wilson, 1995).

In a study by Takefman et al., (1990) it is found that 20% of males were unable to perform for the post coital test (PCT) and out of this half also reported erectile difficulties during their partners' fertile period. In addition to basal body temperature (BBT) and coital charting, both common procedures in the early months of the investigation were reported to inhibit enjoyment of sexual activity for both partners. It was found that sexual enjoyment and orgasm rate decreased during sex engaged in for the PCT test compared to sexual encounters at other times. Furthermore a correlation is also found between feeling distant toward husbands during PCT sexual activity and unfavorable results on the PCT itself suggesting a connection between psychological variables and reproductive physiology.

In a study of 256 couples treated unsuccessfully with IVF, male partners were found to have increased marital and social stress, decreased overall mental health, increased physical and social stress, and increased coping effort. Men with pre existing anxiety, depression, or dysfunctional coping styles were at increased risk for psychosocial dysfunction when faced with the difficulties of this treatment (Peronace, Boivin and Schmidt, 2007; James et al., 2009).

Careful patient counseling and education regarding etiology and treatment options decreases the anxiety faced by infertile men. Feelings of control improve
with timely reporting of test results, description of the diagnostic and treatment process, and clear estimates of the time commitment necessary for treatment. Reproductive care providers should screen their male patients for sexual relationship, and other psychosocial problems and offer appropriate treatment or referral should they arise. This intervention may significantly decrease the amount of psychosocial strain experienced by men with an infertility diagnosis (James et al., 2009).

The emotional experience of infertility has been described as a roller coaster due to the uncertainty on a monthly basis and because it is composed of a series of crises and never ending stress. Each month brings the anxiety of new tests and treatments not to mention the repeated disappointment when conception is not achieved and menstruation occurs. Dyadic discrepancy in the desire to have children fuels the solitary distress pattern in women since the women may feel that they are struggling through the treatment process with little support or encouragement from their husbands (Berg and Wilson, 1995; Valerie and Hart, 2002).

In a study to determine prevalence of depression and the effect of psychiatric intervention on the rate of depression of infertile couples, findings showed that 48% of women and 23.8% of men suffer from various degrees of depression. Among the 48% of women, 30% suffered from mild, 12.5% from moderate, and 5.3% from severe depression and among the 23.8% of males 16.6% suffered from mild, 4.7% from moderate and 2.5% from severe depression. This study also showed that the prevalence of depression was two fold among infertile women as compared to fertile women. The prevalence of psychiatric disorders are studied between a group of 150 infertile women receiving treatment in the
infertility clinic and 150 fertile women attending the gynaecology clinic. Results showed that psychiatric disorders exist in 44% of infertile women and 28.7% of fertile women; this difference was significant in respect to interpersonal sensitivity, depression, phobia, paranoid thoughts, and psychocitism and fertile women were significantly more stable than infertile women. The fact that psychological disorders were twice as common among infertile women as compared to fertile women indicate the importance of conceiving in the society (Noorbala, Ramzanzadeh, Malekafzali, Abedinia, Rahimi and Shariat, (2007); Verhaak et al., 2005).

Mental health professionals who are working with affected individuals need to be knowledgeable about the physical and psychological conditions causing and resulting from fertility problems and their treatment. In addition they need to understand the effects of the stress of infertility and treatment on the involved families (Malkah et al., 1997).

2.2.3 Coping with Infertility

The pattern of adaptation to infertility appears to differ by gender. For example, women communicate more frequently with a greater number of individuals and discuss infertility to a greater degree than men. Women also seek information about infertility and have support group contact to a greater degree than men. In over half of the couples in one study, the wives and husbands behaved differently towards other people’s children with conflicts arising in situations when one wanted to avoid children and the other wanted to be closer to others' children. A style of avoidance is more commonly reported among the women than the men. However avoidance coping strategies have not been
uniformly observed in women. Women may avoid situations like baby showers but none of the women rejected opportunities to interact with children and many in fact sought out children. Some interesting couple dynamics have been observed around the issue of who have been diagnosed with infertility problem. Wives have been willing to assume the infertility identity or ‘stigma’ even when their husbands have the medical infertility problem. This can assume the form of a ‘courtesy stigma’ which is adopted to save husband from the greater stigma or a tendency for reproducively normal women with infertile husbands to suspect that their own bodies are also dysfunctional. Therefore while the average global index score of distress is generally within the normal range, there appear to be a significant number of infertile individuals who are experiencing some discrete forms of psychological maladjustment which could potentially benefit from intervention (Berg and Wilson, 1995; Akkar, 2004).

Lee and Sun (2001) in their study identified that infertility treatment involves more complicated, uncomfortable, and humbling medical procedures for women, so the coping strategies used by wives may differ from those used by husbands. Coping through sharing of emotions may be more socially acceptable for women than men. Furthermore wives make a more active attempt to establish social relationships with other infertile couples. Interestingly in this study husbands used the ‘Being the best’ strategy to a greater degree than the wives. This included keeping a positive attitude and changing the places, positions, and times when engaged in sex, etc. Major strategy used by women for coping with the IVF and ET programme is to develop a positive attitude only.
It is found that for any infertile partner emotional turmoil will be experienced and often recognizing such feelings will help them to cope with infertility. Spousal support has been shown to be very important in coping with the stress of an infertility diagnosis. A large study of the coping styles of men and women undergoing IVF found that women chose confronting, accepting responsibility, seeking social support, and escaping or avoiding styles more often than did men. They also found that men and women with escape or avoidance coping mechanisms had the highest levels of infertility related stress. Situation is stressful if it is perceived as a threat to the person and if the person does not feel he or she has the coping skills to adapt to it. Infertility is stressful because it threatens the person's plan to have a child which is highly valued. The extent to which infertility is stressful is further impacted by the coping skills the person uses (James et al., 2009; Thoits, 1995).

Klock (2008) reported that general optimism and perceived responsibility for the cause of the infertility are protective against post IVF distress. Feelings of loss of control, perceived contribution to the IVF failure, and the use of escape as a coping strategy are related to increased post IVF distress. Optimism seemed to protect the woman from the threat of infertility. Only one coping strategy, escape coping was related to post IVF outcome. Women who used escape as a coping strategy experienced greater distress. It was found that women used measures like more accepting responsibility, seeking social support and avoidance coping than men. Men used more distancing, self control and problem solving than women. Women reported greater levels of infertility related distress.
One of the ways couples can begin to overcome the stress of infertility is to learn how to be assertive in stating what their needs are and what they need from other people. Infertile individuals and couples may choose to confront their relatives and friends verbally or to approach the issue in a letter. In either case the infertile couple is given the opportunity to take control (Kluge, 2009).

Shared stress, bereavement and disappointments can increase a couple's feeling of cohesion and result in improvement in their marriage. There is evidence showing that congruency of couples' perceptions of infertility, and sharing their sorrow and consoling each other is associated with good marital adjustment. The quality of marriage is found better when both spouses have common involvement in infertility treatment and both find having a child important. The results of the study showed that treatment success at the first attempt was associated with good dyadic consensus and cohesion among women and marginally lower sexual affection among men. Thus a couples’ commitment to continue infertility treatment despite failures can increase spouses’ closeness and shared hardships and disappointments may create a feeling of marital cohesion. On the other hand the decision to continue treatment after failures may lead to selection of couples: those with well functioning coping styles and good spousal relationships may be more likely to continue treatment than couples are very vulnerable to life stressors (Repokari et al., 2007).

The couples’ possibilities for coping with the stress of the infertility depend on whether they have a stable emotional basis for their relationship and if they have open communication with each other. It is absolutely necessary not to hide
feelings from each other which results in vague and double communication. Vague communication with double messages increases the risk for misunderstanding and projection which will always have negative consequences for the relationship when the identity of the man or the woman is threatened. Individuals derive strength from their relationship with the partner in difficult situations like infertility diagnosis and failure of infertility treatment (Moller and Fallstrom, 1991).

Women used weaker confrontation methods as compared to men. In addition a significant relationship exists between the use of confrontation methods and mental health of infertile couples. Use of methods based on religion, active opposition, programmed comparison, prevention of sudden confrontation with problems, and positive redefinition are associated with good mental health. It is found that use of denial methods, concentrating on feelings and showing their feelings, negative thinking and superstitious thoughts have association with poor mental health (Ramezanzadeh et al., 2009).

Benyamini et al (2008) in a study revealed that adjusting to childlessness is a ‘terminal’ state i.e., losing hope of having a biological child and abandoning treatment may involve different ways of coping. Though in most cases infertility causes stress and not the other way around, there is evidence that stress could affect treatment outcomes. The use of coping strategies such as denial has been found to be related to a negative treatment outcome. Therefore it is all the more important to understand how to help women maintain their well being and cope effectively with the distress caused by infertility and its treatments. The approach avoidance dilemmas are related to the change that infertility has caused in the
women’s lives. Women must deal not only with the blow inflicted by infertility to their sense of self but also with the difficulties of presenting a simple and coherent life story in the social world. While some women take on an identity of self as infertile others continually struggle with the denial or acceptance dilemma along with the cycles of hope and disappointment resulting from the treatments. It was found that feelings of powerlessness and loss of control may lead women to develop ways to perceive order and exert control such as self blame or control over the disclosure of information.

Malka et al., (1997) in a study proposed measures for better coping by infertile couples. The problem of infertility should be viewed as a couples’ problem. As a result the couples should be encouraged to participate together in all aspects of the process of evaluation and treatment. In this way each member of the couple will have a better understanding of the demands made on the other and will be more likely to be a support for his or her partner. Psychosocial issues should be discussed by the physician with the couples not only at the initial visit but also at follow up visits especially when major changes in medical strategy occur. It is easy for the healthcare team to focus on the mechanical and medical aspects of the process of treatment and evaluation of infertility and to ignore the psychosocial aspects. It is important that the couples feel comfortable speaking with the mental health clinician because one of the most important roles of the clinician is to help patients discuss reproductive options in a setting where they do not feel pressured or judged about their answers. These options include having biological children, using collaborative reproduction, considering adoption, or living without children.
Initial patient sessions may include provision of information about some of the usual psychological reactions to infertility and its treatments. During the initial visit the mental health professional should take a psychological history that includes information about the patient’s fertility, contraception, pregnancies, abortions, genetic abnormalities, medical problems, and motivations for pregnancy in addition to the usual psychological data.

Berg and Wilson (1995) also discussed that patient information materials should be available in the clinic including information about other support services for couples. Providing information about professionally run support groups or national organisations, will help the couple to acknowledge that infertility is a life crisis, they are not alone and that discussing their feelings with others may help. A professionally run infertility support group within the infertility practice may allow patients to self refer without fearing the label of being emotionally unstable or requiring mental health care. For either partner who is infertile it is imperative that they express their feelings openly. Holding back on emotions is far more stressful than letting everything out. Feelings of guilt or of being alone may be experienced and in such instances it is wise to seek help from professional counsellors. These people will be able to allay any fears that the partner may have about their spouse leaving them, over the inability to produce a child. Klock (2008) in another study suggested that programs of relaxation can be useful in settling down the tattered mind, and it is often calming to practice some form of self meditation such as yoga. It is essential that both partners talk about their problem. Females naturally tend to be more chatty than men, but it is better that they share each others thoughts. Couples have to
talk together about substitutes in both of their lifestyles like adopting a new born baby or concentrating on respective career interests or living life without children.

A study report show that psychocognitive therapy (behavioural, cognition and psychotherapy) during the process of diagnosis and treatment especially prior to IVF therapy and pregnancy testing can result in higher rates of pregnancy. The use of psychological treatment can increase the chance of pregnancy even after six months follow-up. Research on patients’ psychological reactions to infertility indicates responses of disappointment and despair over the inability to reproduce. An initial response of denial of these feelings may occur because of their overwhelming nature. The patient may be able to recognize the reality of the feelings of disappointment and despair only after an adjustment has been made to non parenthood or after parenthood has been achieved through adoption. Health personnel can serve as change agents through their relationships to patients involved in diagnostic and treatment procedures for infertility. A nurse can provide a climate in which the patient can recognize the normality of the emotional response to infertility rather than engage in a process of suppression and denial of these feelings (Vernon, 2006).

Berg and Wilson (1995) also reported that the design and implementation of effective psychological interventions depend upon the ability to identify different types of infertile couples which embrace the wide range of functioning evident in this population. Only then interventions can target specific types of couples and move beyond the traditional methods that have limited professionals in this field. The infertility condition and its treatment can be effectively dealt with by
women having a good personality disposition, a high level of self esteem, who are satisfied with their job and relationship with their husband, and who are willing to adopt a child as a last solution for their maternal need.

Couples should be allowed to grieve if a treatment is unsuccessful or on giving up the idea of having a shared genetic child. Even if they are satisfied eventually with a child conceived with an egg or sperm donor or with an adopted child, they still have experienced a loss and have a right to feel some sadness. Infertility can have profound effects on couples, who may spend years in an increasingly stressful quest for conception and counselling must be offered to those undergoing licensed treatments. Couples relied on their own partnership as their main resource for managing stress. Predominantly the partnership was organized in a psychological division of labor with the woman experiencing emotional pain and the man supporting and seeking positive solutions. The final phase of reorganization is hallmarked by acceptance and reordering of one’s life. It can take couples from two to five years to reach such a state of equilibrium. The presence of the stigmatization of infertility and the development of ‘learned helplessness’ may complicate the resolution of the grief. (Klock, 2008).

Infertile subjects should be assisted in trying their best for having children or in adapting to the condition of being childless. It is shown in a study that knowledge before treatment of distress and acceptance of the probability of being left childless are factors which determine the emotional response occur in response to infertility treatment failure. Infertility specialists can help improve the process of acceptance of such situation by discussing the problems of infertility with couples.
so that they can handle the condition in a better way such as the opportunities that exist in case of treatment failure. Clinicians must also help couples in becoming emotionally ready for facing unsuccessful treatment in case it occurs. Psycho cognitive teachings for infertile couples can probably help them in overcoming and controlling the natural emotional distress brought about by treatment failure. Mental health professionals can be very helpful in teaching couples techniques to manage stress during infertility treatment. Professionals can help them agree on choices that confront them and also to grieve and come to an emotional resolution in unsuccessful infertility treatment (Ramzanzadeh et al., 2009).

2.2.4 Quality of Life Among Infertile Couples

Quality of life (QoL) has emerged as a well established concept to address many issues. Being considered a restatement of the World Health Organization’s commitment to the promotion of a holistic approach to health and healthcare, QoL assumes a particular relevance when clinicians and researchers intend to investigate complex and multidimensional health conditions. Not only a full blown depressive diagnosis has a determinant impact on all QoL domains but also sub symptoms may affect QoL. Since infertile couples are at higher risk to have depressive and anxious symptoms their QoL also need to be evaluated. Educational level, strong will to have children, poor marital relationships, previous in vitro fertilisation attempt and duration of the infertility were predictors of lower mental health scores and QoL in infertile men. Women had significant lower scores on mental health, social functioning and emotional behaviour. Among infertile subjects women had lower scores in several QoL or HRQoL(health related quality of life) domains in
comparison to men. Quality of life (QoL) has emerged as a well established concept to address these issues (Chachamovich et al., 2010).

According to Chachamovich, Fleck, Cordova, Knauth and Passos (2009) health related quality of life also changes in infertility. The female patient may spend a great deal of time in the infertility clinic for tests and treatments. Although she is not really sick she may begin to identify with the sick role and begin to feel that her physical health is compromised. In addition women may also report feeling ill because of the side effects of some of the hormonal medications used to enhance fertility. It has been consistently demonstrated that infertility is associated with quality of life (QoL) impairments. QoL scores do not differ markedly between spouses. Since QoL seemed similarly affected in both men and women, consideration might be given to offering interventions to them as a dyad.

The stress caused by infertility has direct effect on marital problems and it lowers sexual self esteem, sexual satisfaction and frequency of intercourse. In addition infertility related stress worsens the relationship between couples both directly and indirectly through marital factors, health assessment, self efficiency and love and affection between the couples and it has more detrimental effect on the quality of life of women as compared to their husbands. Many of the studied infertile couples appear to experience a high level of stress and women appear to be disproportionately affected due to the persistence of many traditional gender related beliefs. Since women had lower mental health quality of life and since the QoL of infertile couples were often associated with infertility related perceptions and responses, counseling services should be couple oriented and take these
perceptions and possible sexual problems into account (Ramzanzadeh et al., 2009; Hunt, 1997).

QoL has increasingly emerged as an extremely relevant outcome in complex and multidimensional health conditions. Studies on infertility have benefited from the inclusion of QoL as an end point since it has made it possible to measure the impact of infertility in a broader way. Males had a better health related quality of life in infertility due to male factor. It was found that female gender and lower educational level were significant predictors of poorer physical health related quality of life. For mental health related quality of life in addition to female gender and lower educational level younger age also was found to be a significant predictor of poorer condition (Ramshidi, Montazeri, Ramezanzadeh, Shariat, Abedinia and Ashrafi, 2008).

It is reported that the quality of life of couples is inadequate when infertility of long duration occur and that it affect both men and women. Several studies have shown that involuntary infertility negatively influences women's quality of life. In addition infertile women seem to demonstrate stronger and more extensive QoL impairment, compared to infertile men. Furthermore, it is hypothesized that one's QoL is influenced by the QoL of one’s partner (Verhaak et al., 2007; Berg and Wilson, 1995). Signs of depression and anxiety were reported as major predictors of quality of life in men during investigation of infertility. Follow up studies describe a lower quality of life among men in infertile couples compared to control group (Vasangar, Bodhare, Bele and Sai, 2011).
A study by Monga et al., (2004) identified that predictors of quality of life of infertile couple were anxiety, depression, social isolation and sexual dysfunction. It is also found that the triad of the condition, its investigation and treatment, the stigma associated with male and female infertility in traditional societal interactions cause a high level of psychosocial distress with a direct impact on the couple's marital and sexual relations. Women in the sample reported dissatisfaction with overall quality of life and the scores obtained on the relational domain being maximally impacted followed by mind body, social and emotional domains. This impact is congruent with the effect obtained on marital adjustment and sexual functioning which are the components of fertility impacted QoL.

In short the psychosocial impact of infertility is comprehensive and infertility has been consistently associated with decreased scores in quality of life (QoL) domains. The most affected domains are mental health, vitality, emotional behavior, psychological, environmental, physical functioning and social functioning (Chachamovich et al., 2010).

So it is necessary to explore the predictors of quality of life of couple with infertility. The variables influencing quality of life of infertile couples in the present study are analyzed in details, namely psychological distress, social adjustment and quality of marital life.

2.2.5 Psychological Distress among Infertile Couples

According to Nachtigall et al., (1992) married couples who are unable to have children are at high risk to suffer great emotional stress. The stress can make both partners lose control of their selves their lives and eventually their marriage.
Couples who are unable to conceive must come to terms with their unfulfilled hopes and dreams. They may also face stress as they try to determine how long they will try to conceive and as they put their lives on hold in so many ways. It is found that around 50% of women and 15% of men consider infertility as the most stressful experience in their lives. In addition around 63% of the subjects who had experienced divorce, believed that infertility was a more stressful experience. In addition they found that 18% of men and 16% of women had significant psychological distress including high levels of depression and somatization. The stress associated with infertility is often overlooked or not fully appreciated by physicians. Consequently couples are only treated for a portion of their problems and are often surprised by the emotional and psychological toll of the experience. Their marriages may also be at risk because of the tensions and the high emotions they are experiencing.

In the mid 1980s clinicians and researchers began questioning the hypothesis that psychological distress is a cause of infertility. Instead they found that psychological distress is a consequence of infertility. With this understanding mental health professionals have become increasingly involved in the provision of care to infertile couples (Klock, 2008).

In a cross sectional study of infertile couples, investigators found that for women the most important factors related to psychological distress are perceived personal control, optimism that they would eventually have a child, and intensity of motivation to have a child. High levels of perceived personal control and optimism are related to lower levels of distress. High level of motivation to have a
child is associated with increased distress. That is, the more important it is to the woman to have a child the more distress she reported related to the infertility experience. It is found that fertility related distress is not long lasting for majority of women. These authors also reported that women at high income levels reported higher levels of infertility related distress. This was explained by the argument that in contemporary society, failure to conceive is a crisis for women who are otherwise used to having control over their environment and meeting goals they set for themselves (Jacob, Quillan and Greil, 2007; Hunt, 1997).

It has been recognized the disruptive effects of stress hormones on the reproductive system affecting menstrual cycles, ovulation, tubal function and uterine receptivity. Infertile women have depression scores comparable to those of women with cancer, heart disease, and HIV infection. Anyone who have experienced infertility can vouch for the cyclic emotional roller coaster ride of hope and disappointment, sadness and frustration in trying to conceive a child. Infertility causes a tremendous amount of stress and the body’s response to this stress can further contribute to infertility. It becomes a vicious and agonizing circle. On addressing the issue of stress and its effect on fertility, couples should realise the importance of dealing with these effects in a positive manner. There is a way to break the vicious circle of stress and infertility and therefore information and resources as well as techniques for eliciting the relaxation response should be the aim of medical professionals dealing the couples with infertility. (Moller and Fallstrom, 1991).
Berg and Wilson (2008) reported that infertility process actually sets families up for a windfall of stressors that are ongoing for each month when infertility treatment is underway. Although couples have increasingly been used as the basis of research samples in the infertility literature, analyses usually involve simple comparisons between the average distress levels of men and women with scant attention to the dynamics within marital dyads. Research on other topics has begun to use the couple as the unit of analysis in order to better understand couple related phenomena and this perspective is essential in understanding reactions to infertility as well. Two distinct patterns might be observed in the psychological functioning of marital dyads. The first pattern could be termed parallel functioning where the distress level of one spouse is linked to the distress of the other and both spouses have similar levels of distress. A shared level of distress can be achieved either by one spouse’s distress causing the distress of the other or by both spouses being subject to common environmental stressor which causes similar distress reactions. A second pattern of complementary functioning may promote the other spouse to overcompensate in order for their functioning as a unit to maintain homeostasis. If sample consists of blend of parallel and complementary dyadic patterns, the correlations for each type may cancel out the other.

Infertility implies strong psychological stress on the individuals. Reactions strong enough to be characterized as emotional insufficiency are reported by more than half of the women and one third of the men of those couples who did not become pregnant or have a child. The infertile person has a loss of self esteem by repeatedly attempting to achieve a desired goal but failing to achieve it. Inability to
have a child as a failure challenges couples and begin to erode their self esteem. The problem is significantly worse when the individual has been highly successful in other areas of life and has not developed the coping skills to deal with failure and loss (Moller and Fallstrom, 1991; Klock, 2008).

Involuntary childlessness can be devastating, and it is associated with psychological distress. The effects of infertility seem to be comprehensive and are not restricted to sexual or reproductive areas of life, but on several psychosocial areas of human existence. Impairments have been reported regarding distinct aspects, such as psychopathology, relationship abilities, marital life, family life, and economic terms (Chachamovich et al., 2010).

In fact family and friends whether supportive or insensitive can contribute to the frustrations of an infertile couple. Couples who do not share the news of their infertility with their friends have to endure conversations about planning for children. Even couples who announce their infertility must deal with fertile acquaintances who are insensitive to their problem, perhaps expecting them to share in their own joy over an expected baby. The triad of the condition, its investigation and treatment, the stigma associated with male and female infertility in traditional societal interactions cause a high level of psychosocial distress (Valsngar et al., 2011).

When the husband is experiencing greater psychological distress he rated the marriage as lower in satisfaction. However, the wife's ratings of marital satisfaction are not altered by her distress level when both spouses are distressed. They are less able to provide needed support for each other. Previous investigations have found
that the marital relationship appears to be a key buffer for emotional distress among married individuals and the infertile couples in particular. When both in a couple are in distress, it reflects parallel distress which can be unstable and difficult to maintain over time. In the latter pattern spouses may opt out of the pattern by terminating infertility treatment, seeking extramarital involvements, invoking a marital separation, or seeking professional help (Berg and Wilson, 1995).

Generally among infertile couples, women show higher levels of distress than their male partners. However men’s responses to infertility closely approximate the intensity of women’s responses when infertility is attributed to a male factor. Both men and women experience a sense of loss of identity and have pronounced feelings of defectiveness and incompetence. Even couples undertaking IVF face considerable stress. Emotional stress and marital difficulties are greater in couples where the infertility lies with the man. Therefore the psychological impact of infertility can be devastating to the infertile person and to their partner (Nachtigall et al., 1992).

Repokari et al., (2007) in their study found that some men and women are at high risk for emotional distress related to infertility especially those who have a shaky marriage relationship or a history of major depression or anxiety. Other high risk factors include past or current problems with chemical dependency, a history of having been abused as a child, a past event such as an elective abortion or an STD that they fear has contributed to present infertility or facing difficult choices about using assisted reproductive technology. A long duration of infertility and repeated experience of treatment failure appear to be important risk factors in
predicting distress which may lead to relationship dissatisfaction as well. The effect of infertility on marital relationships can also be modified by personal coping strategies, sharing and communication between spouses and partners' involvement in infertility treatment.

2.2.6 Social Adjustment among Infertile Couples

Berg and Wilson (1995) found that for couples isolation is another aspect of infertility. Contact with the world where signs of fertility are everywhere is painful for them. Difficulties of attending social functions such as baby showers or family birthdays for children may prove to be impossible to bear and even everyday activities of daily living such as seeing babies at the local market, office or picnic can precipitate a strong emotional response. The social stigma of childlessness results in feelings of imperfections and a ‘spoiled identity’. There is a societal assumption that all couples have children. The topic is common in initial conversation when meeting someone for the first time. Some of the effects of dealing with the stigmatization of infertility include attempts to conceal the situation by denying the want of children, developing other interests, and avoiding social situations.

One of the key features of social stigma is a discredited moral status. Couples have reported feeling morally judged with regards to their infertility and decisions to use assisted reproductive technologies. Negative comments such things as infertility is an act or even punishment from God is one of the reactions from society leading to social stigma. It is common for couples to report secrecy and misdirection with regards to their infertility diagnosis. For example women
reported telling family and friends that the source of the couple’s infertility is hers when in fact the diagnosis is male factor. It has also been reported that men perceive infertility to be more socially acceptable for a woman than for a man. In addition men reported feeling that there is more social support for infertile women whereas they felt ridiculed. A persistent lack of treatment success and the increased emotional suffering which it causes may act as a chronic stressor that places a great burden on such couples’ social networks. This burden may cause a breakdown in social support eventually contributing to further increased stress over time. It is found that men’s social network became more negative and less supportive over time with greater overall social stress. When treatment is not successful men’s physical and mental health deteriorates as well as their supportive environment. (Laura et al., 2007).

It is found that 30% of the sample, almost 1,000 participants in a study reported a strain in their relationship with others and spouse. Couples went through various phases when involved in infertility treatments. One among those is that of yearning a phase accompanied by feelings that they are alone in their infertility. It is particularly painful to see babies, so the couple will avoid social situations where children are present. Also feelings of jealousy and anger are common during this phase. Anger is directed both at self and others. It may be difficult not to be angry if the cause of the infertility rests with the other partner. Infertility result in a fear of being alone in the society and their social activities continue to be limited in order to avoid the sight of babies and pregnant women. Discomfort of being with such angry, tense, and unhappy infertile couples by other friends and relatives
result in scanty social support network available for the couples. Since the couples limit their social circle to a small group and avoid large gatherings and functions, they isolate themselves from society and they themselves experience social isolation (Klock, 2008).

In fact, family and friends whether supportive or insensitive can contribute to the frustrations of an infertile couple. Family members are often unaware that holiday gatherings can be upsetting for infertile couples who can be disturbed by seeing pregnant relatives and small children. Mother’s and Father’s days are especially painful to infertile couples. (Laura et al., 2007).

Few studies reported that in addition to marital difficulties, the infertile couple may also experience strain in relationships with family and friends. They may isolate themselves from their family and friends because they consider infertility as a private problem that is uncomfortable to share. They may often feel misunderstood when they do share their feelings. They assume and believe that no one else can understand the true intensity of their emotional pain. Unfortunately they are often right. When they hear over and over that ‘all they need to do is relax to conceive’ they begin to withdraw. They may stop attending family celebrations such as baby showers, christenings, mother's day or religious holidays when other family members may bring their children with them. The couple begins to feel left out and stops associating with those who have children. Friends who are pregnant may also be avoided by the infertile couple because they are a reminder that others can get pregnant with ease. The infertile woman’s loss of relationships can deprive
her of social support which can compound feelings of isolation and depression (Repokari et al., 2007; Klock, 2008).

Infertile couples may displace their anger toward others such as family and friends who from the viewpoint of the infertile couples, may not be particularly sensitive to the emotional pain they are feeling. Unfortunately anger displayed toward family and friends may drive away those who are in the best position to provide emotional support for the infertile couples. One partner may also become very angry with the other if they sense that he or she does not feel the same degree of emotional pain or have the same intense desire to overcome the infertility. The more distressed partner may place unrealistic demands on the other and become very angry if he or she is unable to meet these expectations (Menning, 1982).

2.2.7 Quality of Marital Life among Infertile Couples

Marital relationship

The infertility stress has an impact on marriage adjustment and the quality of life of the couples. All infertile women suffer from infertility stress in different degrees and nearly half of them have marriage maladjustments and the two variables have strong correlation. It is quite obvious that the amount of maladjustment vary due to the intensity of the stressful experiences caused by infertility. Infertility and the whole treatment period with the stress resulted, leave less time and energy for the couples to have fun and pleasure from togetherness and this in turn increases the mutual stress and influences marriage satisfaction. It is almost guaranteed that the sexual relationship of a couple will be affected. In fact many couples often
refrain from sexual intercourse except during the time of the woman’s ovulation, a practice that rarely has positive emotional consequence (Hassani, 2010).

Several studies explored marital and sexual satisfaction among infertile couples. Husbands and wives tend to hold similar views of the marital and sexual relationship. Both members of the marital dyad are found to be significantly correlated on measures of relationship distress and marital and sexual satisfaction. Greater concordance is found in marital communication between the spouses of infertile couples when compared to fertile couples. Majority of infertile wives and husbands rated their marital relationship as good or very good, but approximately half disagreed about how infertility influenced their relationship. Husbands and wives are found to give varying estimates of coital frequency (with the wives reporting higher frequencies) which is significantly different among the fertile controls but only had a tendency to differ for the infertile couples. Thus there appears to be a consistent degree of concordance between infertile spouses in their views of the marital relationship, although they may view the influence of infertility differently and may be prone to vary in their estimates of intercourse (Berg and Wilson, 1995; Valerie and Hart, 2002; Repokari et al., 2007).

It is found that different aspects of infertility and its treatment are important for marital satisfaction for women and men. Among women undergoing ART, the number of unsuccessful treatment and spontaneous abortions were found influencing factors for their marital relations, whereas among men the length of infertility was a significant factor. For men the increasing stress of long lasting infertility is more wounding as has been reported earlier. During the first three
years of infertility, couples showed stable marital adjustment and sexual satisfaction which deteriorated after that. The length of infertility was not salient for women. Multiple aspects of infertility may lead to deterioration in marital relationships of infertile couples including personal reactions such as feelings of guilt, lowered self esteem, feelings of inadequacy as a man or a woman and interpersonal aspects such as deterioration of sex life and communication. A long duration of infertility and repeated experience of treatment failure appear to be important risk factors in predicting distress which may lead to relationship dissatisfaction as well (Repokari et al., 2007).

Investigators reported that marital strain may develop over time and men with newly diagnosed infertility may begin to experience increasing marital strain over time. The underlying quality of marriage may influence or predispose men to personal, marital, or sexual strains and these problems may be unrelated to and predate the diagnosis of infertility. Strong marriages may help to protect individuals from the psychosocial stressors of an infertility diagnosis and subsequent treatment. When a medical basis for infertility has been discovered the infertile partner usually feels a sense of guilt that they have compromised their spouse's ability to have a child. Carried to the extreme particularly if the marriage is not strong to begin with, the infertile partner may actively threaten to leave the marriage to free their spouse to procreate with someone else. Alternatively the fertile partner may engage in actions to influence the dissolution of the marriage. The marital relationship can be strained or lost because of fears that the fertile partner will leave the infertile partner (James et al., 2009; Read, 2004).
Infertility also implies stress on the relationship between man and woman. Most of the men and women are of the opinion that their relationship managed to cope with the stress of infertility. But approximately 25% of couples who had not had a child and were not pregnant, on the third occasion of measurement of marital relationship satisfaction, reported an impaired relationship with many other problems including sexual problems. A longitudinal study was designed to assess the effects of infertility as well as the influence of the subsequent medical investigation on marital functioning. Significant increase in stress and decrease in marital functioning are experienced by subjects as the treatment investigation progressed. Furthermore high levels of marital distress is observed in couple who did not conceive (Moller and Fallstrom, 1991; Benazon, Wright and Sabourin, 2002).

Even though a couple is working together toward a common goal, the emotional pain associated with infertility and the stress of the evaluation and treatment may make it difficult for each individual to provide the necessary emotional support for each other. Unfortunately this occurs at a time when each needs the emotional support and intimacy provided by the other partner. When they cannot meet each other's needs each partner may withdraw and isolate themselves (Klock, 2008).

Berg and Wilson (1995) found that estimates of psychological functioning, marital adjustment and sexual satisfaction declined more precipitously for the individuals who were in the later stages of treatment. It may be argued that distressed men have more of a negative impact upon the marital relationship than distressed women; however personal distress in men is not correlated with
women's ratings of marital adjustment. Therefore, when infertile men are distressed, their views of the marital relationship are more negatively affected.

The ability to reproduce is intimately tied to sexuality, self image and self esteem. Sexuality and sexual activity are also important means of expressing feelings of closeness and intimacy in partnership. During infertility treatment the pleasurable experience of sexual intimacy may be negatively affected and this may contribute to marital distress. On the basis of infertility related multiple risk models it can be expected that other life stressors would have a stronger effect on marital relations in previously infertile couples than in control couples. A long duration of infertility and repeated experience of treatment failure appear to be important risk factors in predicting distress which may lead to relationship dissatisfaction as well. Women among infertile couples reported poor marital adjustment and quality of life compared with controls (Monga et. al., 2004).

Repokari et al., (2007) suggested that the effect of infertility on marital relations is modified by factors such as personal coping with infertility, sharing, communication between partners and partners’ involvement in infertility treatments.

Sexual problems

Tarabusi et al., (2004) further discussed that at the beginning of the diagnostic or therapeutic procedures for infertility the relationship between the two partners worsens mostly in the sexual area. Possibly the procedures themselves induce a high level of distress that adds to the pre existing psychological suffering.

Ramzan zadeh et al., (2009) identifies four types of interactions between sexual problems and infertility. (a) sexual causes of infertility in males and females
(vaginismus, impotence, premature ejaculation, failure of ejaculation) (b) effects of tests and treatments for infertility (c) effects of infertility on sexual attention and prior vague feelings (blame, low self esteem, anger, and passive behaviour) (d) psychiatric and sexual effects. The stress caused by infertility has direct effect on marital problems and it lowers sexual self esteem, sexual satisfaction and frequency of intercourse. Infertile subjects state that their sexual relationship has become like a duty and compulsory deed rather than a joyful task. The sexual relationship therefore inevitably becomes ‘sexual intercourse due to needs’. The inability to reproduce arouses a feeling of sexual failure.

Monga et al., (2004) reported that men may experience less intercourse satisfaction perhaps because of the psychological pressure to try to conceive or because of the forced timing of intercourse around the woman’s ovulatory cycle. An additional strain on the relationship may be the changes in the couple's sex life. It is noted that infertile couples have sexual difficulties. Sex may become a reminder of the couple's failure to have a child. The increased intrusion into the sexual habits of the couples by the medical team, recommendation for timed intercourse, frequent intercourse, or limited intercourse may make sex feel like a chore. The intimacy and pleasure usually derived from sexual relations may be identified as another loss by the couples (Klock, 2008).

Ramazanzadeh et al., (2006) studied 200 infertile couples and they compared the level of sexual satisfaction and sexual desire in males prior to and after being diagnosed with infertility and found a reduction after diagnosed to be infertile. In another study to determine the effect of diagnosis of infertility on
sexual and marital satisfaction and feelings of failure and depression, they studied 138 Thaivanese couples in whom the factor of infertility was dispersed by a variable in both sexes (female factor infertility in 43 couples, and male factor infertility in 53 couples and both male and female factors in 21 couples). Results showed in both studies that amongst couples with both male and female infertility factors, women had less sexual and marital satisfaction as compared to their husbands. Also women with female factor infertility had lower self esteem and they had feelings of sin and shame as compared to women with male factor infertility. In addition sexual function was significantly lower in these subjects as compared to women with male factor infertility (Lee and Sun, 2001).

2.2.8 Effects of Adoption

Zosky et al., (2010) reported that adoption is of course the ‘cure’ to infertility. The adoption journey will bring some of the most positive stress a person can experience as they examine their childhoods, explore their relationships with significant others, family and friends, define their parenting philosophy, style and principles as part of the application to adopt. The elation when learning of a referral, of meeting your child to be, of putting a face and a name to the dreams that have evolved is unforgettable.

Once reaching home the newly adoptive family needs to make many adjustments in order to cope with the multitude of problems that derive from the prior institutionalization of their child. The new family member is experiencing his or her own stress. This is a child who may never have been outside and must learn to adjust to the new sights, smells, tastes, and sounds of a different culture. It can
be a child who is physically and developmentally stunted and starving from life in an orphanage. Most adults couldn’t handle this level of stress without a major breakdown, may not be in first weeks and may even think that the decision is wrong. A child is far more likely to break down and it may not be in the first days or weeks but sometime later (for most such children, in the first six months). This child is going to pull out every behavior they know in an attempt to regain some control and flesh out some boundaries. In addition to the stress of facing the child the family has to adjust to being a larger family, prioritizing needs and to readjust their expectations. Dream child may not equal reality child. It can be even more difficult if the parents have trouble in bonding to their child. There are many reasons why bonding can be difficult. An orphanage child comes with a lot of baggage that may or may not be known to the family. Orphanage children may resist being touched, hugged or kissed. They may not like being held, rocked or tickled. They may resist feeding. Such behaviors can frustrate the usual activities that promote a parent's bonding with a child. Faced with all of this, a family can find itself in a world of negative stress (McKay et al., 2010).

Ceballo, Lansford, Abbey and Stewart (2004) in a study described hurdles in adopting a child. Families, couples, and individuals who decide to adopt should always go through a rigorous screening process that encourages self reflection and consideration about their reasons for wanting to adopt as well as their expectations for the child and the parenthood experience. The adoption process can seem intrusive and overly cumbersome to prospective parents. Each State has its own laws governing adoption. Inter country adoptions are subject to additional
regulations. So it is normal for prospective adopters to feel vulnerable and powerless about the adoption process. During the process prospective parents will find themselves making life changing decisions which can be both exciting and stressful. Prospective parents may also experience long waiting times and have to face uncertain outcomes. It is not unusual for them to feel anxious about the process and to find it difficult to go about their regular routines when so much is at stake.

Gobbel (2011) in his study picturises the mental agony the newly adopted parents experience. Adoptive parents have been made to face the bitter truth of infertility, a failed pregnancy or the death of their child after which they take decision of adopting. The adoptive parents have a sense of dejection and defeat instilled into their minds. The intricacies of the adoption process lead to feelings of helplessness in adoptive parents. They become sensitive about lightest of actions of the child that in some way show rejection. They complain of not experiencing an intimacy with their adopted child. The grief of the adoptive parents continues as the child grows up since the adoptee can never fully meet the expectations of the adoptive parents. Adoptive parents feel that they are never meant to be parents. They tend to worry that the child might know of adoption and at times are struck by depression with the thought of them not being the real parents of their child. Sometimes they become overprotective about the child. Alternatively some feel they are entitled to be parents thus turning careless about parenting.

Fontenot (2007) in the study revealed that when studying adoptive families throughout life course important benefits can be determined. Marital and adoption
experiences most often recursively benefit one another in adoptive families. The study involving qualitative interviews with 43 adoptive couples specifically exploring changes in adoptive family’s developmental life cycle at key transactional or nodal events reveals occurrence of a ‘magnifying effect’, usually benefiting both adoptive parents and children. Regarding adoptive family life, there is a ‘magnifying effect’ as couples and families progress well in multiple dimensions throughout adoptive family life cycle. Adoptive families that adjust well during earlier transitional stages will most likely continue to be successful in their future adjustments at other key transitional events like entrance to school and teenage years.

McKay et al., (2010) described post adoption wellbeing in a study. Adoptive mothers scored significantly lower on both the anxiety and depression when compared to both biological mothers and controls (married women without children). Subsequently positive affect scores for adoptive mothers were significantly higher (indicative of more positive affect) when compared to biological mothers and controls. On the whole adoptive mothers had significantly better mental health outcomes when compared to the other two groups of women. It is reported that a small percentage of parents had scores indicating clinically significant levels of stress. Out of the 109 mother father pairs, 10 mothers (8.3%) and 4 fathers (3.7%) obtained a score which is indicative of a clinically significant level of stress. Further on the individual subscales, mothers reported significantly more problems related to depression, whereas fathers reported significantly more problems with social isolation. Child behaviour problems are the strongest
correlate of parenting stress outcomes for both mothers and fathers. Data indicated that adoption may have important implications for adoptive parents’ mental health. With respect to mental health, rates of distress appear to be lower than those reported among biological parents but post adoption depression does appear to be relatively common. Post adoption depression is associated with some of the child and parenting related variables that have been linked with depression among biological mothers mainly sleep deprivation, infant temperament, and child behavioural problems.

While further discussing post adoption scenario among adopted parents, it is revealed that when compared to the pre adoption period there is significant decrease in the mean scores for the somatization, depression, and paranoid ideation during the post adoption period (Senecky, Agassi, Inbar, Horesh, Diamond and Bergman, 2009).

Conversely adoptive placement also seems to assist infertile couples with their sense of social compatibility with others. A ‘leapfrogging effect’ occurs, whereby infertile couples describe overcoming the feeling of ‘left behind’ when their social counterparts begin to have children. Adoptive placement ‘leapfrogs’ them forward to a new stage of family development helping couples to feel ‘caught up’ or some what equal with others in their social network and placement seems to have beneficial effects for couples in this process. A comparison of social network reveals that attitudes about marital and family self conceptualisation are heavily influenced by the social networks of adoptive parents (Weir, 2004).
Some of the studies found that couples who have solid marital relationships will find transition to adoptive parenthood likely increase or magnify their family happiness with an adopted child. Couples with troubled marital relationships finds adding a child magnifies their marital and familial relationships. Marital satisfaction seems to be associated with family satisfaction. In a study which assessed marital satisfaction within the first year post adoption, both mothers and fathers reported high levels of marital satisfaction including relief of sexual problems (McKay et al., 2010; Weir, 2004).

In a study which compared the physical health status of adoptive parents found that general health of adopted mothers improved after adoption. The study examined the frequency of various health problems in new adoptive mothers, birth mothers, and a comparison group of married women without children using a checklist of 70 potential health problems. The birth mothers completed the survey an average of 7.7 weeks postpartum and the adoptive mothers completed it an average of 5.8 weeks after children were placed at home. The mean age of the adopted children is 6.6 months. Of the three participant groups, adoptive mothers had the fewest physical problems with a mean of 2.92 problems per person. In comparison, biological mothers reported a mean of 4.06 physical problems per person and control subjects reported a mean of 4.41. It is found that the difference between three groups is found to be statistically significant (Ceballo et al., 2004; Fontenot (2007).

So altogether listed studies provide the direction that marked increase in the quality of life of couples occur after adoption.
2.2.9 Post Adoption Stress

Adoption is a legal procedure that makes the birth child of one man and woman into the legal child of other adults. Parents opt for adoption to eliminate already experienced loss and disappointment because of the inability to have a biological child. In addition some of them may have faced with repeated miscarriages or intrusive fertility treatments. Regardless of the exact circumstances, couples who turn to adoption because of infertility may have already weathered an emotional roller coaster. Inability to bear a child of their own, to bring home a child from outside, whether the people around them would accept the child, would the child himself accept them as parents, would the birth parents ever come back to claim their child back and so many such concerns still continue to trouble adopted parents. It is important to remember that both partners in a couple may not resolve their grief at the same pace and arrive at the decision to adopt (Foli, John and Thompson, 2000).

For prospective adoptive parents the adoption process is a whirlwind of paperwork connected with adoption agency and social workers. It is expensive and exhausting physically and mentally. Many adoptive parents have to spend hours and hours for adoption. Parents have to figure out the rules of the agency and possibly of that country. They have to locate their financial records and birth certificates. The next step is to attend classes about adoption and parenting. Again preparing for and participating in a home study where they have to prove to a stranger that they are deserving of parenthood. Deciding to pursue adoption and actually bringing a child home is stressful and sometimes agonizing. Because of the lifelong impact of adoption, members of adoptive families may want or need
additional support, education, and other services as their children grow up. Adoptive parents also may experience loss and grief issues of their own often stemming from infertility issues or the stresses of the adoption experience itself. For some adoptive parents these issues may even cause strains in their marriages (Gobbel, 2011).

Adoptive parenthood like other types of parenthood can bring tremendous joy and a sizable amount of stress. Emotional ups and downs may be experienced by the adoptive parents as they approach the decision to adopt, during the adoptive process, and, most importantly, after the adoption. While every adoption is unique and every parent has different feelings and experiences, there are some general themes that emerge regarding adoptive parents’ emotional responses (Ceballo et al., 2004).

For many adoptive parents, completing the adoption matching and placement process means that the most difficult phase is behind them. Most adoptive children settle in with their new family and research shows that the great majority of adoptive parents are satisfied with their decision to adopt. But settling into parenthood or the ‘post adoption period’ can present its own difficulties for parents. However there are other potential stressors unique to adoption, and adoptive parents may want to familiarize themselves with these possibilities. Years of anticipating parenthood and the excitement of the actual adoption can give way to a feeling of being "let down" or sadness in some parents. Researchers have dubbed this as ‘post adoption depression syndrome’ or PADS and it may occur within a few weeks of the adoption finalization. The term ‘Post Adoption
Depression’ has been used to explain the feelings of sadness that are experienced by many adoptive parents subsequent to the adoptive process. The realities of parenthood including the tedium, lack of sleep (for parents of infants or children with behavioural or sleep issues) and the weight of parental responsibilities can be overwhelming. Parents may have difficulty attaching to the new child and may question their parenting capabilities. They also may be hesitant to admit that there are any problems after the long awaited adoption (Foli et al., 2000).

Foli et al., (2000) in his study draws a picture of sequelae of post adoption stress. The post adoption blues leaves no holes barred as it explores the challenging time after adoption when adoptive parents often expect to feel blessed, enriched, and ready for whatever comes. This is a vulnerable time that can turn into a crisis as unexpected and unanticipated feelings arise. Adopted parents feel shame, guilt and a fear of being judged by others which prevent them for a time, from embracing their role as parents. Expectations that adoptive parents bring have several dimensions: expectations of themselves as parents, expectations regarding the child, expectations of the birth family, of adoption professionals and of family and friends. Even for the environment (neighbourhood and extended family) adoptive parenthood is not self evident. Adopted children can bring about all kinds of reactions even from strangers like compassion, feelings of care, curiosity and rejection. Adoptive parents are usually not happy with the continuous attention they receive from onlookers which may make them feel like they have to prove themselves as parents all the time. When people become parents they need support especially from family and friends. But for adoptive parents this support is not
always available. Relatives including grandparents may need time to get used to the foreign ‘strange’ child. Moreover because they lack knowledge of adoption, their ideas of how to raise a child will possibly not correspond to the way the adoptive parents treat their child. This can lead to more stress around adoptive parenthood instead of relieving it. Adoptive parents may fear that their child is discriminated against because of his or her different looks. At first discrimination is often positive discrimination but when the child gets older this may turn into negative discrimination.

Viana and Welsh (2010) reported that the post adoption blues are the expectations parents hold of the post adoption experience and how the differences between those expectations and reality create stress and depression. Depressive symptomatology experienced by many adoptive parents revealed that the related factors contributing are pre adoption stressors, stress associated with the acquisition of an adoptive child and post adoption stress. Adoptive parents often bring to the table a history of traumatic stress. For example pre adoption stressors may include fertility problems, losses and significant relationship conflicts. Once engaged in the adoption there are often serious medical concerns, ‘misunderstandings’ and heartbreaking disappointments. After adopting a child additional traumatic stressors come into play centering on the realization of a dream, with tremendous life changes, new responsibilities and a future marked by uncertainty and fear. By focusing solely on post adoption depression the causative or related stressors that contribute to the adoptive parents’ feelings of sadness are neglected. Insensitive questions from others about infertility and prior losses will likely stimulate
unresolved feelings and may cause adoptive parents to revisit pre adoption stress. In a study with pre adoption and post adoption surveys, it is found that higher maternal depression symptoms and higher expectations of child before adoption are significantly related to higher parenting stress six months post adoption. In contrast higher expectations for child acceptance and higher perceived social support at pre adoption are significantly related to lower parenting stress six months post adoption.

As for illnesses suffered by adopted children upon arrival, infectious diseases represent the most frequent problem like Hepatitis B, intestinal parasites and skin problems. It is found that majority of children (67%) were reported to have had inadequate prenatal care with 17% having low birth weight and 13% spending time in neonatal intensive care. Anaemia is also frequent (20%), as well as strabismus and vaccination irregularities. Respiratory infections affected on average 55% of the children upon arrival, skin problems 50%, gastrointestinal problems 20% and all these physical disturbances of the child add on to the post adoption stress. At the time of arrival most adopted children show an insecure pattern of attachment. On extreme care and attention in the initial stage of adoption, the children can feel scared or threatened and try to keep a distance from care and attention by these parents. Indeed all adopted children have been separated from their caregivers up to the time of their adoption like their mothers, grandmothers or institution caregivers. The separation experience has an effect on all of these children and is considered to be one of the distinctive traits of adoption that there are important psychological delays on attachment upon arriving. All
children show an improvement in attachment compared to the initial stage although to a different degree within a few months. The development of adopted children often shows delays in emotional, cognitive and physical areas caused by the fact that they have been understimulated in their younger age. This makes it difficult to distinguish at an early stage whether the developmental delay is caused only by negligence or whether the child also suffers from a mental or psychological disorder which is an important factor of stress among adopted parents after initial euphoria (McKay et al., 2010).

Many families would feel relief from the familiar stresses of infertility after the adoption of a child for the first month or so. Often around the second month after an adoption a sense of renewed stress and even depression would occur. Again added stressors such as changes in sleeping and eating habits, added family get together, the inevitable changes in work, recreation, and social activities place a new adoptive family at the epi-center of a stress quake. Most new adoptive families whether adopting domestically or internationally, have also experienced a change in their financial state due to the rising costs of adoptions. Families who adopt children are also subject to stress due to even more unique changes in their daily routine, financial condition, living conditions, and the added responsibility to meet a variety of needs for children (Foli et al., 2000).

However the adopted parents along with support from the agencies and support groups are able to cross over these stressors and get balanced as time and days go on except a few which result in dissolution of adoption.
2.2.10 Post Adoption Counselling

Post adoption services are ongoing comprehensive support services that include counseling, education, family forums and advocacy which address clearly identified developmental issues and social emotional challenges frequently shared by adopted parents and their families. Post adoption services involve preventive measures to ensure the preservation of adoptive families. Bringing an adopted child at home is exactly when the real support needs to begin. Certain common features among these families are that they have undergone fundamental loss experiences beyond those that any family can normally expect. Although adoption is decidedly positive there is some indication that a significant proportion of adopted children may require mental health or other therapeutic interventions. If a child or family need support to navigate the predictable normal developmental crises related to the adoption experience or is facing the more serious emotional and behavioral difficulties including possible threat of disruption or dissolution, the need for effective mental health services cannot be minimised. Counseling and psychotherapy services in the infertility centers reduce the psychological pressures and couple problems of infertile and to help them to increase fertility rate on adoption. In couple counseling, functional training courses by counselors and psychologists increase the knowledge on psychology of infertility and the methods of confronting the crises (Hassani, 2010).

Adoptive parents have to recognize that added stress occurs in their lives and they should learn to deal effectively with them. In counseling, it is important to remind new parents to take care of themselves in order to take care of their new charges. They should identify what behaviors or settings actually trigger their
stress buttons the most and by identifying their own stress buttons, the adoptive parents can begin to develop strategies that keep them from experiencing their stress in unhealthy ways (Viana and Welsh, 2010).

McKay et al., (2010) reported that many adoptive parents feel that support in the post adoption period is valuable for them and their children. In order to develop effective support services that meet the needs of adoptive parents professionals need to understand couple’s mental health, physical health, and relationship needs. Main post adoption services are needed to help parents understand their children’s behaviour, to help them give their children the best possible stimulation, to monitor progress achieved and how relationships have evolved. In certain cases post adoption services are also needed to decide whether more intensive intervention or specialised help is considered necessary for adoptive parents.

All characteristics of adopted parents and children may lead to difficulties that might arise right after arrival at home or possibly later within few months. The support an adoptive family requires after adoption is not static but changes with individuals and time, posing at each moment, different from the previous ones and also different from those faced by non adoptive families. Adoption professionals need to represent more accurately some of the potential challenges of the post adoption period that may leave adoptive parents feeling blindsided by their own unanticipated reactions. They should strive to lessen the difference between what is expected in the post adoption period and what is actually experienced by new parents in order to support those who face increased stress and depression.
Adoptive parents bring different capabilities and resilience to the adoption process. For some the post adoption period is wrought with issues that can undermine their sense of stability, while others might meet similar challenges with resilience and problem solving (Foli et al., 2000).

According to Repokari et al., (2007) on addressing the issue of stress and its effect on fertility, it is important to deal with these effects in a positive manner to break the vicious circle of stress and infertility. The ‘Relaxation Response’ is a condition of deep relaxation in which there is a measurable decrease in heart rate, blood pressure, stress hormone levels and muscle tension. Its purpose is to give patients a sense of control over their emotions and to reduce the physical effects of acute or chronic stress. It replaces a state of anxiety with a feeling of serenity which is obviously a much healthier condition. It will not unblock obstructed fallopian tubes, create sperms or resurrect declining ovaries. It may help fertility problems of an unexplained or hormonal nature. It will help virtually all couples with their ability to take control of their emotions and learn to be at peace with themselves. Health professionals can potentially encourage the process of improving general wellbeing among infertile couples. Many agencies offer some kind of post adoption support and services. Some offer preservation programmes dedicated to keep the adoption intact by helping parents understand their child’s behavior and manage it appropriately. Research has shown that a good therapeutic relationship between adoptive parents and their social worker can also help during the post adoption phase.
The counselor or therapist that the adoptive parents or families use should be adoption competent. They should have experience with adoption issues and knowledge about the adoption dyad. Other healthy adoptive families are often good sources of referral for therapists. Other adoptive families can also offer their own support and experience as well as normalizing the experience. Local support organizations may maintain lists of adoption competent counselors and therapists. The comparative adjustments over the lifecycle between individual adoptee development and family development indicates periods of harmony and disharmony which can be predicted in an effort to provide better counseling services to adoptive families. As early identification is often associated with faster treatment and better prognosis, there is a need for adoption workers and health service providers to be alert for signs of physical health, mental health, or relationship problems during the post adoption period in order to optimize the health of the entire adoptive family during this critical time (McKay et al., 2010; Weir, 2004).

Adoption social worker can fulfill the role that an obstetrician fulfills to many new adoptive mothers particularly when it comes to answering questions and noticing post adoption depression. Spending some time with adoption support groups in the local area generates feeling of belongingness and will be of great help and support for such parents to talk about common problems. Even parents of newborns or young toddlers many benefit from a few sessions with a counselor well versed in adoption. It is not uncommon for new parents to experience some symptoms of post adoption depression. Having a good therapist skilled in adoption
is even more important in parenting an older child with a history of trauma (Gobbel, 2011).

In summary, infertility presents as an ongoing personal and developmental crisis for the individual and a couple’s relationship. The series of emotional responses include depression, anxiety, and the various stages of grief. Other specific dilemmas include social isolation, disrupted sexual life, and overall increased marital tension. The psychiatric clinical specialist can facilitate working through both the emotional reactions of ongoing crises and provide a safe environment for the couple or individual to discuss painful and confusing responses and decisions (Viana and Welsh, 2010).

The wish for a child and the stress connected with this can decrease the chances of having a child. The stress which can be a contributing cause primarily and secondarily to the infertility is increased as a consequence of the infertility and a vicious circle is created, which further obstructs pregnancy. An important task for future research is to study the mechanisms used to cope with this stress, the relation of these coping mechanisms to different stress symptoms. The chances of having a child through spontaneous conception need to be explored among infertile couples after adoption through reducing stress after adoption and maximising the quality of life of such couples.
Summary

Theoretical overview on the whole gives a clear picture about nature and scope of infertility, physical and psychosocial components as causes of infertility and different treatment modalities and its consequences. The chapter also gives an overall picture on theories of infertility. These theories explain the possible role of different psychosocial variables on quality of life of infertile couples. The chapter also depicts the process of adoption and the legal procedures involved in it in a detailed manner. The theories related to adoption forms the scientific base of the study explaining behavioural reactions in adaptation process of infertile couples as adoptive parents.

Based on review of studies on infertility, it is possible to conclude that infertility is a stressful situation for the couples. Infertility also results in low social adjustment among couples. Quality of marital life is found to be reduced as a result of infertility. This in turn leads to low quality of life and decreased general wellbeing of the couples. It can also be concluded based on studies related to infertility that the adverse effects of infertility at the psychological level affects the endocrinology and reproductive functions which in turn may affect the fertility. Therefore ignoring the psychological factors related to infertility and merely considering infertility problems as physical alone will create huge obstacles in understanding human beings as an integrative whole.

Studies related to adoption reveal that adoption act as a ‘cure’ to infertility. Adoption also results in reduction of psychological distress. It increases social adjustment and quality of marital life of infertile couples. It can be concluded on
the basis of related studies that adoption enhances quality of life and general wellbeing among couples. It can also be concluded that the improvement in psychological component of infertile couples on adoption can influence endocrinology and reproductive functions to improve the fertility rate.

Current interest in infertility and adoption arises from the available literature that posed several research questions related to effect of stress on infertility. The significance of the study is with reference to the scenario in India and Kerala where the family relationships and impact of infertility is much stronger than in the west. It is also worth looking into the possibility of spontaneous conception after adoption on improvement of general wellbeing of couples after adoption.