CHAPTER II
REVIEW OF LITERATURE

Literature review is a critical summary of research on a topic of interest, generally prepared to put a research problem in context or to identify gaps and weakness in prior studies so as to justify a new investigation or a thorough review of literature provides foundation upon which to base a new knowledge.76

Literature review helps the investigator to develop deeper insight into a problem and gain information on what has been done before. It also provides a basis for further investigation justifies the need for replication, throws light on problems encountered by the investigator. At the same time it indicates constraints of data collected and helps to relate the findings from one study to another so as to establish knowledge in a professional discipline from which valid and pertinent theories may be developed.

The present study was conducted with the aim to study the lived in experiences of infertile women attending selected IVF clinic. The literature reviewed on different aspects of the study has been organized under four main headings.

- Section I: Literature related to effect of infertility on aspects of life including quality of life
- Section II: Literature related to health seeking behavior of childless women
- Section III: Literature related to the coping strategies adopted by childless women
- Section IV: Literature related to the opinion of childless couples with respect to adoption.
SECTION I: Literature Related to Effect of Infertility on Aspects of Life Including Quality of Life.

This section offers a brief overview of studies related to impact of infertility on various aspects with regard to social, psychological, marital and sexual relations and leisure activities.

A prospective comparative study involving 3 groups of 50 couples each was conducted to determine the impact of repeated treatment failure of clomiphene and intrauterine insemination on the quality of life of couples with infertility. The first group consisted of infertile couples with repeated treatment failure (group FT), the second group comprised of infertile couples who had never attempted any medical treatment (group NT), and the third was a control group of couples with at least 1 child and no history of infertility. Participants completed a comprehensive questionnaire to assess 16 areas of quality of life. The quality of life scores of the control group were higher than the scores reported by groups NT and FT (P <.001). There was no significant difference in the quality of life score reported by group NT and group FT or between male and female partners. Among women, a high quality of life was reported by 22% in group FT, 14% in group NT, and 54% in the control group. Among men, a high quality of life was reported by 14% in group FT, 12% in group NT, and 60% in the control group. In contrast to their male partners, the women with repeated treatment failure placed higher importance on children and home than their counterparts who had not started the treatment (P <.05). Although couples with repeated treatment failure of clomiphene and intrauterine insemination did not demonstrate a overall lower quality of life than other infertile couples beginning baseline assessment, the quality of life of infertile couples is lower than that of fertile couples.77

A study was done to inspect changes in fertility specific distress (FSD) and general distress according to divergent experiences of infertility amid 1027 US women who had experienced infertility in the last 10 yrs. General distress was measured using a short form of the Centre for Epidemiological Studies - Depression. Multiple regression analysis was used on self report data (based on telephone interview) from a probability based sample of US women aged 25–45 years. Two groups of women
with infertility were compared one who have had a prior pregnancy (secondary infertility, n= 628) to women with no prior pregnancies (primary infertility, n= 399). In addition to this, two groups of women with infertility were compared who were actually trying to become pregnant (the infertile with intent) with the women who met the medical definition of infertile but they did not mention themselves as trying to become pregnant (infertile without intent). Findings revealed that both type of infertility (primary versus secondary) \((B=0.31)\) and intentionality (infertile with and without intent) \((B=0.08)\) were associated with FSD. These associations prevailed when control for resources and demographic variables. Life course variables, social support variables and social pressure variables were applied. General distress does not vary by infertility type or intentionally. Women with primary infertility who were explicitly trying to become pregnant at the time of the infertility episode stand out as a particularly distressed group. Caregivers should be aware that the emotional needs of women with primary infertility may differ from those with secondary infertility.\(^7\)

To investigate the extent to which women in Southern Ghana seeking infertility treatment perceived them as stigmatized and to investigate the relationship between perceived stigma and infertility-related stress a survey was conducted among women at three health sites. Data was collected through face-to-face interviews in three languages with 615 women. Almost two third of women (64%) in this sample felt stigmatized. Sequential multiple regression analyses indicated that higher levels of perceived stigma were associated with increased infertility-related stress. Also women with higher levels of education felt less infertility-related stress. The presence of an existing child/children, the number of years spent in infertility treatment and the type of marriage (monogamous/polygamous union) were less important in predicting stress. The findings suggested that the social status of infertile women derived from other factors can be of importance in minimizing the impact of stigmatization and stress related to infertility.\(^9\)

A study evaluated the emotional reactions of 268 couples attending a combined infertility clinic in Kuwait using quantitative and qualitative methods. The first phase was by structured interview using two standardized psychological scales: the 25-item Hopkins Symptom Checklist and Modified Fertility Adjustment Scale. Results showed that the emotional reactions experienced by women and men were: anxiety
12.7% and 6%, depression 5.2% and 14.9% and reduced libido 6.7% and 29.9% respectively. In the semi-structured interviews, the emotions expressed were similar in addition to anger, feelings of devastation, powerlessness, sense of failure and frustration. In the survey, 12.7% of the men were found to show more anxiety than women (6%). Although all the 10 women interviewed confirmed they were anxious; only 4 of their partners were reported to be sad or anxious. Study recommended need for integration of psychological intervention in management of infertility treatment.80

A cohort study was undertaken to assess and compare the psychological health status and marital quality of Chinese women referred for IVF intracytoplasmic sperm injection (ICSI). Impact of clinical and socio demographic determinants on psychological health status and marital quality were also tested. The sample included two groups of infertile women (100 registered for IVF and 100 for ICSI) along with a control group of 100 women attending gynecology clinic with no known history of infertility. In the first visit of the treatment cycle a psychometric test was given to the women. Two measures were used to test psychological status i.e. Hopkins Symptom Checklist-90 (SCL-90), and marital quality measured by the ENRICH (Evaluating & Nurturing Relationship Issues, Communication & Happiness) marital inventory. The results unveiled that infertile Chinese women planning to undergo IVF- ICSI scored notably more on all the subscales of the SCL- 90 than the controls. Moreover, women in the IVF subgroup had significantly higher score on depression scales than the women in the ICSI subgroup. Unstable relationships were seen in the study group as compared to the control group. Psychological health status and marital quality were found to be negatively correlated with age, yearly income, duration of infertility and history of unsuccessful IVF treatment.81

To explore the difference between anxiety and depression among infertile and fertile women, a study was conducted in Karachi, Pakistan. Sample comprised of 120 women (60 fertile and 60 infertile) who had at least 10 yrs of education and were in the age of 20-35 yrs. The two groups were further divided into two subgroups of working and non working women. Institute of Personality and Ability Testing Depression and Anxiety Scales were used to assess depression and anxiety respectively. Findings revealed that infertile group had mean depression score of
32.01±12.49 as compared to women in fertile group 24.45±9.63 which was found to be significant. Infertile women had the greater level of depression and anxiety as compared to fertile women. It was concluded that support to infertile women is very necessary during treatment and lack of companion might result into psychological consequences.\textsuperscript{82}

A study explored the perceived causes of infertility, treatment-seeking for infertility and the consequences of childlessness among a predominantly Muslim population in urban slums of Dhaka in Bangladesh. Findings revealed that the main cause of infertility was thought to be evil spirits, physiological defects, psychosexual problems and physiological defects in men. The treatment options for women were herbalists and traditional healers whereas remarriage along with herbalists and traditional healers was considered as treatment for men. It was found that childlessness resulted in perceived role failure with social and emotional consequences for both men and women. It also resulted in social stigmatization of couple, especially of women. Women bear huge burden of infertility and are at risk of social and familial displacement. This study recommended suitable and good source of treatment at community level along with community based interventions to destigmatize infertility.\textsuperscript{83}

A study was undertaken to explore the experiences of social consequences among women suffering from secondary infertility attending tertiary care hospitals in Karachi. Data was collected through case series of 400 women with secondary infertility using questionnaire. Results showed that more than two third of women (67.7\%) stated that their inability to give live birth or give birth to sons had resulted in marital dissonance. The women were threatened for divorce (20\%), husbands’ remarriage (38\%) or to returned to their parents home (26\%) by their in-laws or husbands. Majority of the threatened women (68\%) did not have any live births. Women reported that they were being physically and verbally abused by husbands (10.5\%) and in-laws (16.3\%) for being infertile. Nearly 70\% of women facing physical abuse and 60\% of the women facing verbal abuse suffered severe mental stress. It was concluded that experience of infertility is a stressful condition and subjects the women to contempt and exploitation resulting in severe psychological and physical trauma affecting her physical, mental and social health.\textsuperscript{68}
A study to document the self reported experience of women struggling with infertility and its treatment was conducted using a multi system perspective. A sub sample of 56 participants from a parent study that examined post traumatic growth in the context of infertility was used based on their answers to a single open ended question about their infertility experience. Responses were content analyzed independently by a team of researchers. The analysis resulted in agreed upon 85 codes clustered in six themes: Challenges as environmental including logistic and social cultural issues; perception of experience as a struggle, loss, failure, stressor, painful experience and emotional roller coaster; reactions as emotional, spiritual, personhood and relational; support as support from spouse, family and friends, faith and counseling; coping strategies as taking action, acceptance and selective sharing, denial and avoidance, taking a break from treatment; post traumatic growth as in self perception and interpersonal relationship. The main overall findings pointed to the sense of being “trapped in a web of multifaceted, environmental and internal relationship”. It was suggested to combine micro and macro approach with maximum support to help women to take action and minimize the trauma and isolation.

A cross sectional study to assess quality of life of infertile couples attending reproductive health research center for IVF and /or ICSI was conducted in Tehran, Iran among 514 women and 514 men using SF 36 (short form health survey). Data were analyzed to compare quality of life in infertile women and men and to indicate variables predicting quality of life. Findings suggested significant differences between quality of life among women and men indicating that male patients had better health related quality of life. With logistic regression analysis it was found that female gender, with lower education 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 education status, younger age also was found to be significant predictor for poorer condition. Hence less educated younger infertile women should be provided help and support in order to improve their health related quality of life.

A cross sectional study was conducted to determine the association between general and specific quality of life (QOL) with different psychosocial aspects of self esteem, social support, sexual satisfaction and marital satisfaction in a sample of 385 Iranian
infertile couples. To measure self esteem Isang test was used and social support was measured via social support scaling by Cassidy and Long. Sexual satisfaction was assessed by Lindaberg Questionnaire and to measure general quality of life state WHO QoL Brief and FertiQol were used. According to results, self esteem scores were lower in couples with long duration of infertility. Low income couple showed lower social support mean score. Couples with higher educational level, shorter infertility duration and higher income group were found to be more satisfied with their marital relationship. Earlier unsuccessful efforts of treatment of infertility were adversely associated with the lower social support and sexual satisfaction. Good QOL scores were associated with the higher educational level, higher monthly income, living in urban area and shorter duration of marriage. Associations were significant between QOL and self esteem, social support, sexual satisfaction and marital satisfaction were significant (P<0.05). This indicated that QOL status in infertile couples is directly associated with their self esteem, social support, sexual satisfaction and marital satisfaction.

To explore the identical and distinct opinions of couples on quality of life with infertility a study was conducted in Kerala, India with a random sample of 100 couples facing infertility for more than 3 yrs. To identify the quality of life (QOL) among infertile couples a questionnaire of 56 items was developed in seven dimensions suggested by Roy Adaptation Model and responses were entered in likert scale from 1 to 5 in a positive scaling. Seven dimensions included psychological well being, sexual relations, financial stability, social and couple relations, physical efficiency, environment support and desire for child. Findings suggested that 50% of the couples were suffering infertility for more than 5 yrs. QoL assessment displayed a subdued quality experienced by most of the couples. There was a difference in QoL of males and females especially in matters of psychological well being, sexual relations, physical fitness, social and couple relationship. Male wanted to have a better life where as females were satisfied with present life. Univariate analysis showed that desire for child was moderate among males while it was more than moderate in females. Further principal component analysis showed that in psychological well being all 4 factors (anxiety and depression, confidence in life, satisfaction and expectation) were significantly different in male and female. Further in sexual relations there was significant difference among the couples on responsibility and
over anxiety of pregnancy was a psychological disturbance while engaging in sex. Overall sex relationship was strained beyond statistical limits and abnormal between sterile husband and wife. Majority of couples (<70%) feared economic liability to pursue the infertility treatment. Only two percent were ready to continue treatment irrespective of cost. For social contact and couple's relationship, husband and wife interaction was far below compared to average level and external support was also not much offered or received by many affected couples. The infertility complex was very high among these couples. Physical fitness and mental strength were found to be low among couples. With regard to environmental support, physical environment and accessibility to health were not found to be favorable to the couple. To conclude majority of couples reported a moderate quality of life and nearly 10% of couples enjoyed a fair quality of life, while 10% of the females and 2% of the males had a desperate QoL. 

An exploratory co relational study was conducted to assess the quality of life among 100 infertile couples attending selected IVF clinic in Haryana. Sample was selected using Purposive sampling technique and FertiQoL was utilized to collect data. Findings revealed better quality of life scores in male partners than females with significant difference. Emotional domain emerged as the most affected domain in both partners. Findings showed positive correlation of emotional domain with all other domains i.e mind body, relational, social, environmental and tolerability indicating effect of emotional state on other aspects of quality of life. Further significant association was found between FertiQol scores and occupation of male partner, age, religion, type of family, age at marriage and duration of infertility. It was concluded infertility affects all domains of quality of life among these couples and recommended to explore impact of infertility qualitatively among couples.

An interpretive descriptive study with aim to explore and compare how gender ideologies, values and expectations shape women’s and men’s experiences of infertility was conducted among 12 women and 8 men experiencing childlessness in Pakistan. Data was collected using in-depth interviews. Data analysis was thematic and inductive based on the principles of content analysis. Findings suggested that the experience of infertility for men and women was largely determined by their prescribed gender roles. Childlessness weakened marital bonds with gendered
consequences. For women, motherhood is not only a source of status and power; it is the only avenue for women to ensure their marital security. Weak marital ties did not affect men’s social identity, security or power. Women also faced harsher psychosocial, social, emotional and physical consequences of childlessness than men and experienced abuse, exclusion and stigmatization at the couple, household and societal level. Whereas, men only experienced minor taunting from friends. Women unceasingly sought invasive infertility treatments, while most men assumed there was nothing wrong with themselves. The awareness gathered into the experiences can significantly contribute towards better understanding of the social construction of infertility and childlessness in pronatalistic and patriarchal societies along with the ways in which gender ideologies marginalize women.89

A study was conducted to explore the psychological, socio cultural and economic consequences of infertility on couples’ life in South Vietnam among 28 men and women using semi structured interview guide. The interviews were taped, transcribed and when necessary translated into English by English expert. Findings revealed that 49 % of men and women expressed high fear of future without child. Majority of the couples (67%) considered assisted reproduction and motivations for not considering assisted reproduction were the high cost of treatments. Adoption was considered by only 18% of couples, whereas, six percent had no opinion and the remaining 76% couples answered no to adoption. Counter arguments were “wanting own child” or “an adopted child is not my biological child”. Ninety five percent of couples saw children as a security for old age. Both men and women thought childbearing is the normal, expected thing to do after marriage. Couples expressed marital discord due to infertility and felt that a child could resolve this. Women in particular reported to be cautious and selective with whom they discussed their fertility problem. Not having children after one year of marriage gave rise to confronting questions causing feelings of pain and pressure. None of the participants had religious or cultural objections against assisted reproduction like IUI, IVF or ICSI. Majority of the participants reported to work harder or take a loan in order to afford the treatment while others expressed to suspend treatment due to insufficient finances. It was concluded that family influence play an important role in the experience of infertility, and economic consequences are grave for the struggling couples. There is a need for psychosocial consultation and mental support programme in infertility management.90
A study using qualitative content analysis was conducted among 57 infertile women participating in a German language internet based treatment for infertility. Aim of the study was to identify themes important to infertile women and examine possible association with mental health level. Participants were recruited through advertisement in Swiss and German fertility websites. Data was collected through emails and these email messages exchanges between patients and therapists were analyzed using content analysis. Findings showed a broad range of emotions described in messages as jealousy, hopelessness, anger, guilt, self pity, gratitude, blame, courage shame and disappointment confirming that experiencing infertility and unfulfilled wish for a child was a highly emotional event. Interestingly, negative emotions such as fear, sadness and hopelessness nearly always occurred in combination with positive emotions such as hope, gratitude and enjoyment. It was concluded that frequent mention of emotions by infertile women, may indicate the presence of high level of anxiety. It was recommended to provide psychological support to infertile women in terms of enhancing positive emotions as an important goal.91

A cross sectional survey was conducted to determine the emotional impact of infertility on women and to identify aspects of fertility treatment contributing to psychological stress among infertile women. Participants (18-44 yrs) were from France (n=108), Germany (n=111), Italy (n=112) and Spain (n=114). Eligible women completed a 15 minutes survey comprising of 50 close ended questions in their local language. Responses indicated that infertility caused a range of emotions and could strain relationship. Overall infertility resulted in lower self esteem. Forty percent of women described feeling “embarrassed” and more than half (55%) agreed that they felt “inadequate as women” and “flawed as women”. Women in treatment reported greater anxiety surrounding sex as they were worried that fertility problems had taken the fun and spontaneity out of their sexual relationship. More than half women felt that they had a supportive partner (59%). Only 24% of women strongly agreed that difficulty in conception had resulted in a closer relationship with their partner. Three forth of women (74%) reported that they felt resentment towards people who took becoming pregnant for granted because it was easy for them. Nearly two third of women (67%) were tired of being offered suggestions on how to get pregnant. It was concluded that infertility pose physical and psychological challenge to couples and
provision of additional information may reduce this burden.\textsuperscript{92}

A qualitative study was conducted to explore the impact of infertility on Muslim women and to explore their cultural beliefs, attitudes and perceptions regarding infertility. In depth interviews were conducted with 11 infertile women who presented for treatment at two infertility centers in Albania. Samples were selected purposefully with only those who have been diagnosed to have female factor infertility. Each interview lasted 50-75 minutes. The interview had three piles: the women’s experiences of infertility; beliefs on infertility and relations with partners and family members. Results showed that mean age of women was 33.5±6.3 yrs (ranging 20-50 yrs). Most of women had less than high school education and resided in rural areas. During the data analysis five main themes emerged including “cold relation with husband”, “family pressure”, “social isolation”, “alternative remedies” and “feeling of guilt”. Under cold relation with husbands women expressed that mental pressure caused by infertility weakened the foundation of the family. Most women felt that they had lost trust in their husbands and he might want to marry someone else. Fear of husbands’ remarriage was consistent among infertile women. All women expressed facing intense family pressure to conceive and many of them faced blame from relatives. Most of the women asserted that they did not like to participate in social activities and preferred to be alone. Most of the women interviewed for the study went around for years before seeking medical help. Women reported using herbs, going to spiritual healers and doing things for “Bad Eye” before seeking medical practitioner. Women expressed loss of self esteem and feeling of guilt for the situation. They felt their infertility is type of curse from God. It was concluded that importance of fertility among Muslim women is exemplified by the social pressure on newly married women to conceive as soon as possible and lack of knowledge makes alternative remedies acceptable to treat infertility. Infertile women feel guilty and low self esteem related to their traditional attributed role as a mother.\textsuperscript{93}

A qualitative study was conducted with the objective to explore the womens’ perspective on reproduction and childlessness in contemporary Indian society in Gorakhpur, India. The sample comprised of 250 married women aged between 20-45 yrs. Among these women, 200 were infertile and 50 had their biological children. Data was collected using face to face open ended interview schedule and each
interview lasted for 35-40 minutes and was analyzed with content analysis method. Major themes emerged as: Family perspective; Social perspective; Religious Perspective and Medical treatment along with religious activity. Family perspective reflected that having a baby was very crucial for personal and family obligations and infant play an important role in strengthening bond and relation between husband and wife. Under social perspective, after marriage conception and birth of a new one becomes principal target for the couples especially for women. Social norms, formation and expansion of own family, prestige at in-laws house and proof of womanhood/motherhood were main reasons under social perspective. Several respondents attributed the cause of their infertility to God under religious perspective. Women believed with God’s blessing only they can enjoy motherhood. Few of them accepted childlessness as result of their past karmas. They acknowledged that they may have done something wrong in past, which is the cause of their suffering now. Many women reported visiting religious place and performing certain rituals for baby. Most of the women were trying both medical treatment as well as religious actions. Findings also revealed that infertility among women was associated with psychological problems as well and many women showed anger, frustration, anxiety and tension in their responses. It was concluded that childbirth is uppermost obligation of Indian couples with major religious and social implications for women. Infertile women face lesser status and prestige in the community which affects their subjective well being and quality of life.94

A qualitative research study was undertaken among 30 Jordanian infertile women to explore their lived in experiences. Their perceptions of failed infertility treatment were documented through interviews and analyzed. Results of the findings revealed eight major themes as: missing out motherhood and living with infertility, experiencing marital stressors, feeling social pressure, experiencing depression and disappointment, having treatment associated difficulties, appreciating support from family and friends, using coping strategies and fear of unknown future. Participants described their dreams of having children and feeling pain of not being at par with others who conceived so easily. They described social questioning regarding their situation as very painful experience and felt lack of intimacy in marital relationship. Participants also wondered if they will ever be able to conceive with or without treatment. They expressed the psychological side effects of infertility treatment along
with financial burden of the same as it was not covered by any health insurance. Family support was reported very helpful both at emotional and logistic level. Coping strategies adopted were turning to God by religious practices, exercising avoidance and problem focused strategies like continuing with treatment to have a child. It was concluded that infertile Jordanian women experience a profound impact on all aspects of life due to infertility and recommends nurses to be more aware of the psychosocial and emotional impact of women’s experience with in socio cultural context.95

A qualitative content analysis was done based on 32 semi structured interviews with 25 women affected by primary and secondary infertility with no surviving children. Aim of the study was to explain the social consequences of infertility among infertile women seeking treatment. Participants were selected purposively with maximum variability from fertility health research center in Tehran, Iran. Data were collected using semi structured interviews and analyzed using the conventional content analysis method. One of the participant was illiterate and others ranged between having elementary education to Ph.D. Duration of marriage and infertility treatment ranged from 3-22 years and 1-14 years respectively. Consequences of infertility was categorized in to five main themes as: violence including psychological violence and domestic physical violence; marital instability or uncertainty; social isolation including avoiding certain people or certain social events and self imposed isolation from family and friends; social exclusion and partial deprivation including being disregarded by family members and relatives and; social alienation. More physical and psychological violence by husbands was faced by women with lower education level and lower family income. Almost all women experienced social pressure and stigma but it was more among the women those who with low socioeconomic level and lived in rural areas. Physical sufferings and abuse was reported by two of the participants. The participants attempted to conceal the treatment methods from others as the use of oocyte donation or IUI caused stigma for women among family. The study revealed that infertility has a complicated interaction with social relationships, expectations and needs affecting everyday life of infertile women. The study stressed on the requirement for facilitation and prioritization of infertility treatment.96

To measure and compare the impact of infertility on marital adjustment, sexual
functioning, quality of life and acceptability of various treatment modalities, a study was undertaken in India. Sample included 106 women attending tertiary infertility centers with primary infertility and a control group of 212 women attending medical OPD. Data was collected using abbreviated version of the dyadic adjustment scale (ADAS) for marital adjustment, abbreviated sexual functioning questionnaire (ASFQ) for sexual functioning, Fertility QoL for quality of life, 5 point likert scale to assess attitude and acceptability towards treatment modalities. Results revealed that 42% of infertile women were below age 25 yrs and median duration of infertility of seven years (ranging 1-15yrs). The median duration of episode of intercourse in terms of sexual functioning in the control group was 12 whereas it was 18 per month in infertile women. More than one type of practitioner was approached by infertile women whereas 88% approached a medical practitioner first followed by referral to a specialist center. Faith healing and home remedies were practiced at least once by almost all infertile women. Adoption and fertility enhancing regimens had the highest acceptance among the sample whereas there was wide variation of disagreement for adoption than fertility enhancing drugs among various treatment modalities. Surrogate motherhood was least accepted in comparison to sperm, egg and embryo donation. Marital adjustment scores were impacted more in the infertile group with most affected domains of cohesion and satisfaction. With regard to sexual functioning, there was an impact on the mean score of desire, arousal sensation and orgasm domain implying a decreasing want and satisfaction due to higher artificial frequency as a result of the need to conceive. FertiQoL scores imply a congruence on impairment of quality of life uniformly among the sample in infertile women. Effective counseling, reassurance and measures were suggested to reduce the impact of the infertility on marital and sexual life, overall QoL to impart a holistic treatment in infertility.97

A study was conducted to evaluate the effect of infertility on quality of life, marital discord and sexual dysfunction. Questionnaires assessing quality of life (Quality of Well-Being Scale-Self Administered, version 1.04), marital adjustment (Locke-Wallace Marital Adjustment Test) and sexual function (Brief Index of Sexual Functioning for Women and International Index of Erectile Function for Men) were completed by couples seeking treatment for infertility. The couples seeking elective sterilization were treated as the control subjects. The couples who participated in the
study were a group of 18 infertile couples and 12 couples seeking elective sterilization. The mean age, years together, and household income were comparable. A mean of 14.5 office visits for infertility was made by infertile couples and 83% of couples reported feeling societal pressures to conceive. The marital adjustment test score of the women of the infertile couples were significantly lower than the scores of the couples in the control group; whereas no difference was seen in the men. Among infertile couples, a trend towards lower quality of life scores was seen in women but not in men. No statistically significant impact on sexual functioning in women was noted; however, the men in the infertile couples had lower total international index of erectile function scores and intercourse satisfaction scores. This indicated that the burden of infertility was physical, psychological, emotional and financial.\textsuperscript{98}

A qualitative study with phenomenological design was conducted with the aim to explore the experiences of infertile women in terms of their sexual life. Participants included 20 infertile women referring to health care centers selected using purposive sampling. Data was collected by tape recording of in depth interviews and analyzed by Colaizzi’s method. Analysis of experiences led to five themes: disturbed in femininity body image, discouragement of sexual relations, sacrifice of sexual pleasure for the sake of getting pregnant, confusion in sexual relation during infertility treatment and striving to protect their marriage. Most of the women stated that goal of marriage was pregnancy and having children and inability to do so lead to disturbed body image. Some of the women reported failure to feel pleasure in sexual act due to inability to produce and frequent repetitive sexual relations. Participants also expressed aversion to sexual relations and found it useless in terms of non achievement of goal of pregnancy. Confusion and lower sexual desire was experienced due to concerns related to planned intercourse and infertility treatment failure. Women expressed that emotional, social and psychological problems impacted their marital life and their effort to maintain normal life through obedience and sexual relations to save their marriage. It was recommended to conduct supportive programs and sexual counseling for infertile couples.\textsuperscript{99}

A study was conducted using structured questionnaire to study the links between the diagnosis of infertility, medical care and the sexuality of the couples treated with Assisted Reproductive Techniques (ART). The impact of infertility was observed in
various fields related to sexual intercourse: sexual desire and satisfaction, frequency of intercourse, sexual disorders as well as marital relationship and more generally the patient's experience of this medical follow-up. The effects on various factors, such as sex and age, number of children and years of ART as well as the type of protocol and the origin of infertility were also studied. The findings of the study showed that the marital relationship was saved and the pleasure was felt at the time of intercourse. They also reduction in sexual desire that are, linked to a loss of spontaneity that can be related to the strategies they set up to maximize their chances of pregnancy and to medical care.100

A cross sectional study was conducted to evaluate the effect of infertility on sexual function among 384 women attending health care centers of Iran. Participants were divided in two groups of fertile and infertile women and were selected by simple random sampling technique. Female sexual function Index (FSFI) questionnaire was used to collect data. Results showed mean age of 29.29±6.7 yrs in fertile and 31.74±8.07 in infertile participants. The mean and SD of all dimensions of FSFI was different between two groups. Sexual function was lower in infertile women. Pearson correlation coefficient showed invert correlation between fertility and desire. The mean of desire was lower in infertile women in compared to fertile participant (r = - 0.35). Around half of participants had arousal, sexual dysfunction with invert correlation between infertility and sexual dysfunction and arousal. It was concluded that sexual function dimensions were lower in infertile women as compared to fertile women and it was recommended to search ways to address the issue.101

A study to examine the constraining influence of infertility on a woman’s leisure lifestyle was conducted with 32 interviews lasting from 50 minutes to 2 hrs. Interviews were transcribed and send for member checking. Through an analysis of the data, three ways the experience of infertility affected a woman’s access to or enjoyment of leisure pursuits included: (1) the all consuming experience of infertility resulted in women who had little or no leisure in their lives, (2) the changes in a woman’s life as a result of seeking infertility treatment negatively impacted her leisure lifestyle, (3) the women felt socially isolated as a result of infertility, which negatively influenced their leisure satisfaction. Many women devoted all their free time and vacations to pursuing infertility treatments. These
pursuits were time consuming on a daily and monthly basis, leaving the women little spare time or energy to devote to other leisure pursuits. Moreover, some women devoted all of their leisure time to reading and learning about their particular situation and possible solutions to their problems. For many women, the experience of infertility was their top priority and they made little time or effort for other pursuits such as leisure. Most frequently mentioned change in leisure lifestyle by heterosexual women in this study was related to their sex life. For many of the women in this study, sexual behaviour became more like work and as a result, was not enjoyable. The leisure lives of women with infertility were also influenced by feelings of social isolation. Study suggested that women experiencing infertility may want to examine their leisure lifestyles and identify those activities, people, or situations that they find constraining and thus, not enjoyable. Further exploration on infertility and leisure will broaden an understanding of the roles of leisure in a specific family context and add to the growing body of literature on leisure, stress, and coping.\textsuperscript{59}

This section highlights the impact of infertility on couple’s specifically women’s lives in terms of quality of life, emotional reactions, stress, distress, social and cultural influence, marital relations, sexual relations and leisure time. Infertility was termed as highly emotional event by participants all around the world and seems to alter quality of life more in women. None of the dimension in life is left untouched and women feel alienated and isolated due to their suffering and pain.

\textbf{SECTION II: Literature Related to Health Seeking Behavior of Childless Women}

Literature was reviewed in order to gain insight regarding health seeking behavior of childless women, modalities adopted by them and their concerns related to available treatment options.

A study was conducted on a sample of 2250 patients attending five fertility clinics with a response rate of 80\% to identify gender differences in motivations to seek assisted reproduction. The COMPI questionnaire booklet was completed by participants which included questions about reproductive history, psychological aspects of infertility including motivations and expectations for treatment among
other things. All the participants reported that achieving pregnancy was important and 77% stated importance of child in life. The main difference between men and women was whether they were seeking the treatment for themselves or for their partner. The study showed that men sought treatment for their partners while as women received treatment for both themselves as well as for their partner. Almost half of sample of men and women were seeking treatment to identify cause of their infertility and/or to have the feeling that they have tried everything. It was concluded and recommended that couples experiencing stress of infertility should be provided with supportive attitude from medical staff and psychological information should be provided.

A prospective hospital based comparative study was conducted to assess the psychosocial impact of IVF among mothers. The study sample included 62 mothers who delivered as the result of IVF. The main findings of the study revealed that IVF was a new method recently introduced in Sudan and it was very difficult to obtain consent as 74.2% of participants requested confidentiality. They didn’t like their community to know about IVF baby and opted not to tell their children how they were conceived. Main reasons for secrecy were: 12.9% parents said for the sake of the baby’s future later not to remind him that he is a test tube baby, 21% wanted to avoid social problems and 19.4% wanted to avoid family problems concerning who was responsible for infertility and the cost of this pregnancy. Nearly one fifth of participants (17.7%) thought of the acceptance of the community to this new method and 3.2% were afraid of the wrong conception via IVF method. Study recommends information, education and communication in communities to create awareness about new assisted techniques for conception.

A study was conducted to assess the knowledge of infertile women regarding fertility, causes and their treatment seeking behavior. Data were collected with 30 infertile women were attending tertiary hospital infertility clinic using semi structured in depth interviews. All interviews for women were conducted in clinics before the women interacted with any member of health care team. The mean age of the women interviewed was 31.5yrs (range 21–41). Help from sources other than medical practitioner vis. traditional healer, spiritual healer and homeopathic doctor was sought by 21% of women. Women had little knowledge about human reproduction and human fertility. Many women said that they knew that intercourse is required for
conception. Around half of the participants were not aware about the causes of infertility. Regardless of an apparent lack of knowledge regarding treatment women said they were prepared “to do anything”, “do whatever it takes” and “go the whole way”. Women did not mind undergoing any type of treatment for any length of time and cover cost. Many women sought treatment to satisfy their husbands. These women showed same level of motivation as others. Reservation regarding treatment was shown by a small number of women. These women felt that they will lose patience over time. It was recommended a requirement for infertility management and prevention along with health education.104

A study to assess the effectiveness of community mobilization strategies in improving reproductive health awareness and use of services was conducted among 46 infertile couples (15-22 yrs) using mixed method approach. In depth interviews were held with couples in community. Data were collected from 2001 to 2005 in Maharashtra, India. Findings showed that more than two third of the women (67.4%) were married before the age of 18 yrs. Early marriage tends to lead a natural expectation from couple to conceive a child usually within a year of marriage. If a child is not conceived, couples faced pressure and stigma from family and community. Women expressed more worry because they endured most of the familial and social disapproval resulting from failure to conceive. Almost all the women showed desperation during counseling sessions. Elders in family particularly mother in law, were reported to be more anxious for conception. Younger couples or those who were married for less than 5 yrs mentioned that even though they were not very anxious about not having conceived yet, their anguish came from familial and community pressure and many of them reported having about families in which parents, husbands or in laws who showed concern in a constructive manner. The care sought by couples not only dependent on their awareness of infertility and the availability of facilities, but also on the perceived causes of infertility. The fear of supernatural forces or an ‘evil’ influences strongly affected treatment seeking, especially in its initial stages. Women often believed that their inability to conceive was due to divine interferences and performed various rituals to please divine. Sometimes women visited spiritual places to seek blessings. A few women in the study also approached reputed “fertility” experts in distant areas. Couple went to qualified doctors either simultaneously while seeking divine intervention or when all else had failed. Due to lack of knowledge about fertility
treatments and the time period required for conception, couples typically switched health providers if women did not conceive within 2-3 months. It was suggested to integrate the knowledge of relationship between physiological manifestations of the infertility and social and cultural environments in which young infertile couples live along with recommendation of counseling of couples along with families.  

An exploratory qualitative study was conducted using in depth key informant interviews and focus group discussions. Fifteen infertile couples, 45 couples with children and eight key informants were purposively sampled and interviewed using a semi structured interview guide. Three focus group discussions were conducted and collected data were transcribed, coded, arranged and analyzed for categories and themes. Results showed that main reason for preference for children was to maintain the family lineage and inheritance and to obey God’s command as in Bible and Koran. Treatment of infertility in community was specifically directed at women and most people used three treatment outlets as churches, traditional healers and hospitals. Couples often used the three treatment methods in combination and in sequence while first methods chosen usually determined by the perception of couple and family regarding cause of infertility. Medical practitioners were often consulted later when religious and traditional methods failed. The social stigma associated with infertility prevented couples from revealing their problems as hospital environment was considered too open to accommodate secrecy. It was recommended a good collaboration among traditional and medical practitioners to provide an opportunity for training the traditional medical practitioners in current scientific knowledge which can cater to biological and spiritual etiologic factors.  

A research study was conducted to explore the experience of women who had undergone treatment for infertility and given birth as a consequence. The main focus was on the perceptions of treatment and care. In this study 18503 women were interviewed who had given birth and 460 women were also requested to participate in the postal study who had received treatment for infertility (2.6%). Open ended questions about the impact of treatment, how treatment could be improved and advice to policy makers were used in the study. Qualitative analysis of the responses to these questions was done. Two hundred and thirty women (50%) responded to these
questions. The themes that emerged were related to: the treatment process, pain and distress, lack of choice and control, timing, emotional and financial costs, fairness and contrasts in care. Women termed being “lucky” as: living in the “right” place, picking a sympathetic general practitioner (GP) or specialist, contacting the “right” clinic, in receiving an effective treatment and in having a positive outcome. For others, the treatment process, waiting and distress were framed as “a price” to be paid to achieve their goal, and the emotional and financial costs were “worth it”. Going through treatment was compared to going into a dark tunnel without choices in relation to their own infertility and of control in relation to the type and timing of treatment was evident, with many women feeling frustrated by the whole process. Numerous women reported themselves and their partner as being “devastated” by the diagnosis and the problems they encountered in gaining access to treatment. Treatments were narrated as “painful”, “tiring”, “exhausting”, “stressful”, “hard, almost physically unbearable” and “associated with dramatic mood swings”. Few women felt that the whole process of treatment was without dignity “dehumanizing”, they “felt like a freak” and would like to have been “treated more like an intelligent human being”. Further analysis revealed that women desired to be treated with respect and dignity and appropriate information and support should be provided to them. Women felt and expected that their distress should be recognized and they should feel cared for. Moreover women wanted to believe their health professionals in situations where outcomes are undetermined.107

As a part of a cross sectional survey, barriers to seeking treatment were identified among infertile women from four European countries. Among participants (18-44 yrs) were from France (n=108), Germany (n=111), Italy (n=112) and Spain (n=114). Eligible women completed a 15 minutes survey comprising of 50 close ended questions in their local language. Majority of women (76%) reported feeling hopeful with infertility treatment. Other emotions with treatment were motivated (41%), confident (30%) and accepting (23%). Whereas among negative emotions expressed were frustrated (46%), impatient (40%) and feeling vulnerable (31%) with treatment options. Despite feeling frustrated and impatient, few women adopted other strategies such as meditation/yoga, reducing working hours, support groups and acupuncture, and 62% reported of women did not use any of these. The greatest emotional barrier in seeking treatment was “fear of failure” (72%). Side effects of treatment were the
main source of concern for half of the women followed by cost of treatment (53%). Thirty one percent of women began treatment when they became concerned about their age and felt that “time was running out”. On average women waited for more than a year to talk to a health care professional. Less than half of women (40%) reported that they felt only “somewhat informed” about infertility treatments prior to starting treatment. Few (4%) also reported feeling “not at all informed” about treatment options. 37% of respondents sought information through other fellow treatment seekers. Study recommended more patient friendly treatment regimens to help to reduce physical demands of treatment and minimize disruptions to life.92

A cross sectional study was conducted in Iran with the aim to assess the knowledge and attitudes of infertile and fertile Saudi participants regarding infertility, possible risk factors, social consequences and to determine the practices of infertile couples to promote their fertility before attending an in vitro fertilization (IVF) clinic. Samples included 277 fertile participants form OPD and 104 infertile patients from IVF clinic at a tertiary care hospital. Descriptive and analytical statistics were applied with a significance threshold of $P \leq 0.05$. The findings of the study revealed that 59% of the candidates had poor level of knowledge and 76% had neutral attitude towards infertility. The participants had mistaken beliefs regarding the causes of infertility were “Djinns” and supernatural causes (58.8%), black magic (67.5%), intrauterine devices (71.3%), and contraceptive pills (42.9%). Among the patient receiving IVF, the primary and secondary preference for infertility treatment 6.7% and 44.2%, respectively was for the healer/Sheikh. Patients receiving IVF treatment were significantly less likely to favor divorce (38.5% versus 57.6%; $P = 0.001$) or marriage to a second wife (62.5% versus 86.2%; $P < 0.001$), in comparison with the fertile patients. More favorable attitudes toward fertility drugs (87.5% versus 68.4%; $P = 0.003$) and having a test tube baby (92.4% versus 70.3%; $P < 0.001$) was seen in the patients with infertility. Child adoption was accepted as an option for treatment by the majority of IVF patients (60.6%) and fertile outpatients (71.5%). Practicing Ruqia (61%), using alternative medicine (42%), engaging in physical exercise (39%), eating certain foods (22%), and quitting smoking (12%) are the alternative treatments earlier practiced by the IVF patients to improve fertility.108

A systemic review of 68 publication (identified through MEDLINE) addressing
social and cultural aspects of infertility and infertility care was conducted in Sub Saharan Africa in order to gain insight into the way biomedical infertility care is provided, considered, experienced and used. Most of the studies had a qualitative, anthropological study design. The data collection in most of the studies was done through in depth interviews, focus group discussion and observations. Findings revealed lack of good quality of basic infertility care offered in a systematic and standardized way. ARTs was accessible to limited number of African citizens as it was only available in private clinics at high cost. Women/couples with fertility problems often “shop around”, combined treatment and visited doctors at different clinics for years without clear results or treatment. In addition, lack of adequate information, unclear results or diagnosis and unsatisfactory way of being dealt with by health care providers were the reasons reported to to stop treatment. Male involvement in infertility care was found to be problematic and pointed to the gender differences in acceptability of ART. Stigma and burden of infertility was reported as male infertility is generally conflated with sexual impotency and virility. Couples with male infertility therefore canceled the diagnosis from their relatives and women said they were better prepare to bear the burden of shame and stigmatization as compare to their husband. Women in general approved use of donor material (semen) than men, indicating that women tried to find out the solutions as they suffered more in these societies. Couples found it extremely important that pregnancy would take place in their body and would thus give them experience of pregnancy which will be publically visible and would end the stigma. Performing IUI or IVF with donor sperm was often considered as adultery by men as the child would not be genetically related to them. Numerous study respondents favored solving infertility by polygamous relationships, traditional treatments and adoption. Study concluded that there is need to address infertility in the developing world with the introduction of proper and comprehensive infertility care.109

A prospective study was conducted to assess the knowledge regarding conception and advise seeking scenario of 1000 infertile women (532 rural and 468 urban) attending OPD over two years at tertiary care teaching hospital at Maharashtra, India. Data were collected using a semi structured questionnaire in the women’s first language. Results suggested that most of the women in both groups had consulted local practitioner before coming to tertiary care hospital. Women had little knowledge about conception
events and 16% had absolutely no knowledge about the basic events of human reproduction, possible treatment options for infertility, but were enthusiastic to know. Out of total, 4.8% visited quacks before going to local practitioners and two have consulted religionist. Both illiterate (9.02%) and educated (54.51%) women had consulted local clinicians and 7.70% illiterate and 25.93% educated women had reported to study place. It was concluded that awareness is likely to help women to access effective medical care, comply with treatment and deal with their childlessness. It was recommended to integrate health education and counseling in infertility treatment.

An analysis to estimate the prevalence of infertility and treatment seeking behavior was conducted using the District House hold Survey data collected in 2007-08 (DLHS–3) in Uttar Pradesh, India. Findings suggested that, infertility was estimated to be 11% among females aged 20-34yrs whose marital duration was more than two years. A higher number of women reported to take allopathic treatment. It was also notified that the percentage of women going for treatment in the private sector was more than double than those seeking treatment in government sector. The percentage of treatment seeking increased as economic status increased and urban couples sought more treatment because of easy accessibility of facilities. Treatment seeking was higher among Muslims as compare to Hindus and other religions. There was a positive association of education with treatment seeking behavior. Illiterate and primary educated couples prefer treatment in the government sector, while those high school and higher education prefer the private sector for treatment. Though infertility was highest among women aged 20-24 yrs, treatment seeking was highest in women aged 25-29 yrs. Study recommended to improve medical facilities especially in rural areas and government health centers.

A cross sectional survey was conducted on conveniently selected 460 adults to assess the knowledge, perception and myths regarding infertility in two tertiary care hospitals of Pakistan. Findings revealed that correct knowledge of infertility was found to be limited among participants. Only 25% of participants correctly identified that infertility is pathological and 46% knew about fertile period in women’s cycle. It was also noted that 45% of participants did not want to label infertility as a disease. More females (56%) were of opinion that infertility is not a disease. Ninety four
percent of them believed that couple should seek treatment and 97% with higher level of education were aware about the available medical treatment. The majority of participants chose to initially consult a gynaecologist for the treatment but if unsuccessful, 75% would take alternative treatments from Hakeems, faith healers and homeopathic practitioners. Out of total, only 11% were aware of fertility drugs for treatment, however for majority (55%) having a test tube baby was not socially acceptable. There was prevalent belief in the society that infertility could be a result of supernatural causes such as evil spirits and black magic. More than half of participants (57%) believed female infertility to be a valid reason for a man to have a second marriage and 86% responded that women is to be blamed for infertility in society. This indicated low level of knowledge regarding infertility among general population leading to believe in supernatural powers as cause of infertility and treatment seeking from faith healers or quacks.\textsuperscript{111}

This section gave researcher insight about various treatment modalities adopted by infertile couple, reasons to adopt these modalities and experiences related to them. It also highlighted factors of motivation and barriers to treatment seeking. Modalities used by participants ranged from services of faith healer to infertility specialist. Participants expressed lack of information about available treatment options and at times blamed health care providers for giving cold shoulder to their concerns. Overall, treatment for infertility itself became a source of stress for infertile women as reflected in various studies.

**SECTION III: Literature Related to Coping Strategies Adopted by Childless Women**

This section deals with the literature related to coping strategies adopted by infertile women/couples and factors influencing the coping mechanism of childless women.

A study was conducted to compare the emotional reactions and coping behaviors among wives and husbands with infertility. Structured questionnaires were used for data collection in the research which was based on 120 infertile couples attending the Intra uterine Insemination (IUI) or the In Vitro Fertilization– Embryo transfer (IVF – ET) programme. Demographic data form, Profile of mood status (POMS) and ways of coping questionnaire were used as research instruments. As per the four subscales of
Tension- Anxiety, Depression-Dejection, Anger-Hostility and Fatigue-Inertia along with total scale of POMS unveiled that infertile wives were more emotionally disturbed in comparison to the husbands. As per the subscales of Self-Controlling, Seeking Social Support and Escape-Avoidance and the total scale of the Ways of Coping Questionnaire it was seen that more coping behaviors were adopted by wives than husbands to deal with infertility and treatment. All of the above reached significant statistical differences. The infertile couples varied in emotional reactions based on the variation in education levels, duration of treatment, number of treatments received and number of existing children. Significant positive correlation was established between emotional reaction of infertile husbands with confronting, accepting responsibility and escape avoidance. The emotional reaction of the wives showed a significantly negative correlation with positive reappraisal. The overall result showed differences among husbands and wives in emotional and coping behavior also the related factors. A systematic review was performed with objective of systematic evaluation of coping strategies in infertility. The research strategies involved general and specific terms in relation to couple’s infertility and their coping strategy including emotional and problem based methods and emotional consequences of infertility. Review findings suggested that personal coping methods, level of support and level of hope were important factors influencing the infertility stress. Two main coping strategies were: emotional coping strategies including encounter coping (aggressive efforts done to change the situation), avoidance and escape, and problem centered strategies including social support demand and responsibility. Many studies of coping with life stressors including health problems found that women use more emotion focused coping strategies as compared to men. Failure to cope with the stressful situation hampers females to reasonably thinking and problem solving coping mechanism. Infertile people use emotional coping strategies more due to lack of control on life events, low self esteem, low social support and high level of stress. Studies showed that in an event of a high level of threat, attention was focused on emotions instead of problem itself, thus leading the person to use more emotional coping strategy more. It was recommend to promote awareness about the usefulness of knowledge of coping strategies adopted by infertile couple in providing clinical interventions and improving the mental health of couples.
A study was conducted using mixed method approach with the objective to identify themes important to infertile women and examine possible associations with mental health level. Using qualitative content analysis, researchers analyzed the email messages of 57 infertile women participating in a German language 8 week duration internet based treatment. Study samples were recruited by means of articles in regional newspapers and advertisements in Swiss and German fertility websites. Results regarding coping with childlessness showed four ways of coping by Lazarus and Folkman (1984) as: active confronting coping (we have decided to take a break from trying to have a child and are going for trip somewhere), meaning based coping (I try to tell myself that people cannot harm my baby), active avoidance (I tried to take my mind off of the situation) and passive avoidance coping (I could only wait in the corner and wait for results). It was suggested to identify stressful negative emotions among infertile women and to provide support in coping with their emotion in healthy manner.

A comparative study was conducted to assess and compare the coping strategies adopted by infertile women with a sample of 200 women (100 infertile and 100 normal) from private clinics and government maternity homes in Chandigarh and two districts of Haryana i.e Hissar and Kurukshetra in India. Coping response Inventory by Moos (1993) was used as a tool with 48 items. It measured eight different types of coping responses to stressful life events. Results revealed that infertile and normal women differed significantly on five of the eight variables of coping including Logical Analysis (F=10.76, p<0.01), Positive reappraisal (F=11.76, p<0.01), Problem Solving (F=11.58,p<0.01), Cognitive avoidance (F=7.10,P<0.01) and Seeking Alternative Rewards (F= 6.15,p<0.01). Infertile women scored significantly lower than their normal counterparts. The coping styles adopted by both the groups were associated with their behavioral description. Interestingly, normal women were found to be higher on cognitive avoidance as compared to infertile women, which suggested that infertile women were not able to avoid situation cognitively and they were involved in continuous thinking about the problem. Infertile women were also less involved in problem solving and seeking rewards. Participants of both groups also differed in problem focusing strategies including logical analysis and positive reappraisal strategies. Thus, infertility as a disease not only affects the physical health but mental health and coping abilities of women as well.
To ascertain the coping strategies adopted by women facing fertility problem, a study was conducted using mixed method approach in three out patient departments of gynaecology clinic (n=324), health care center (n=250) and a private clinic (n=41). Data were collected using open and closed questions. Some close ended questions were selected using ways of coping checklist. Findings revealed that coping strategies adopted by these women were grouped under themes in terms of denial/wishful thinking, talking to others, taking control, passing as normal and fate/acceptance/blame. Participants reported denying accepting that they may have some conception problem and majority wished that situation would go away. Sixty one percent of women confirmed avoiding people and activities that reminded them of their infertility. Talking to others and seeking social support was not common strategy among the women and 66% did not talk to people how they feel about their infertility. A high percentage of women (91%) tried to keep themselves as normal and 89% tried to keep themselves busy with other activities and 99% turned to prayers for coping. Almost all of the women (99%) believed it was God’s will and if He chose they would eventually conceive. Women (61%) did not hold themselves as responsible for fertility problems. It was recommended to assist women to build on effective emotional strategies and design and implementation of psychological programmes for infertile women.114

Using a grounded theory approach, a study was conducted to explore Muslim and Christian womens’ experiences and preferences with regard to infertility counseling. Thirty infertile women affiliated to different league of Islam (Shiite and Sunni) and Christianity (Protestantism, Catholics, Orthodoxies) were interviewed using in depth semi structured interviews at infertility clinics in the UK and Iran. Data analyses was done using the Straussian mode of grounded theory. Results revealed categories as: appraising the meaning of infertility religiously, applying religious coping strategies and gaining faith based strength. These were encompassed in the core theme of “relying on a higher being”. Participants using a spiritual meaning framework tried to reappraise their illness religiously and spiritually. They viewed their infertility as God’s will and nothing can happen without God’s contribution. Religious infertile women experienced infertility as an enriching experience for spiritual growth. This perspective helped them to acquire a feeling of self confidence and strength to manage emotions. They employed a wide spectrum of religious coping strategies
which are rooted in religious teachings. These enhanced their emotional capability and helped them to overcome stress of infertility. Majority of the women expressed their religious teachings as the best source of counselling. These women pointed that their faith taught them to manage life and to handle its stresses and they did not need any counseling. Study recommended to consider religious and spiritual issues during counseling of infertile women to gain access to their religious perspective.115

This section highlighted studies related to the coping mechanisms adopted by infertile women to overcome stress of infertility. Studies reflected that women use more coping mechanism than their counterparts. Adopted coping mechanism were emotional centered thus hampering problem solving approach.

Section IV: Literature Related to Views Regarding Adoption

This section deals with the literature related to knowledge and attitude of women/men regarding adoption and motivating factors and barriers related to adoption.

To determine the willingness of infertile women to adopt a child and factors influencing attitude to adoption, a descriptive cross sectional study was conducted among 506 infertile women in Nigeria. Participants comprised of new and old patients with infertility attending gynecology clinic in a tertiary care teaching hospital. Data were collected using a structured questionnaire with face to face interviews during 2 months interval. Results showed that majority of respondents were aware of child adoption and most common source of information was friends (47.8%), followed by media (39.7%). Nearly half of respondents (42.6%) were willing to adopt if their infertility became intractable. The main reason given by those who were unwilling to adopt were culture (78.3%), family constraints (13.45%) and religion (8.3%). Cultural reasons included: unknown background of the child: may not be a kin (problem of inheritance or genealogical rights), fear of abandonment by the child when he/she realizes adoption status and prospect of adoption as psychologically unacceptable as inability to love the child as their own. Family reasons included lack of husband’s, parents and in laws support. Religious reasons included; prohibition of adoption by religion (Muslims), lack of faith in God by adopting (Christian). Univariate analysis showed that factors such as no living children, awareness of adoption and infertility
for more than 5 years, pressure from parents, higher education were found to be significantly associated with positive attitude towards adoption. However the acceptability of adoption was significantly low among poor women and those with limited education. Study advocates mobilization and advocacy and counseling by health care providers to enhance the adoption among infertile couples.\textsuperscript{116}

A prospective descriptive study was conducted with aim to evaluate the knowledge, attitude and practices on child adoption among infertile women in Cameroon. Data were collected using a structured questionnaire from 300 infertile women from a tertiary care hospital for six months. Findings revealed that the nearly two third of participants (64.7\%) were in age range of 25-30 yrs. Religion wise, majority were Christian (95.7\%) and most of the patients had up to secondary school education. Primary infertility was found among 26.33\% of participants where as secondary infertility was found among 73.7\%. Majority of the participants (89.7\%) has heard about adoption, 62.1\% through media. Seventeen percent of participants knew who to meet in order to adopt a child and 76.7\% were in favor of adoption, however 48.7\% didn’t want to adopt a child. Only one percent had adopted a child. Reasons for refusal of adopting were stated as: child may not have consideration to parents (20.1\%), stigmatization (19.6\%), cultural reasons (17.1\%) and complexity of the procedure (7.1\%). The attitude towards adoption was significantly influenced by the duration of infertility of more than 10 yrs. Among those who had secondary infertility, only 9.4\% wanted adoption. Among women aged between 25-30 yrs, 28.2\% wanted to adopt a child as against 78.8\% who did not want it. It was concluded that level of knowledge was high among educated patients and attitude was favorable but practice of adoption was low due to certain reasons.\textsuperscript{117}

To assess the opinion of infertile women regarding child adoption, a phenomenological study was conducted in south western Nigeria. A purposive sampling technique with criterion sampling was used to select 10 infertile women and a focus group structured interview was utilized to collect data. Data were analyzed using Giorgi’s method of analyzing qualitative studies. Findings of the study revealed that none of the participant had ever adopted a child even though child adoption was viewed as a good thing to do. Child adoption was considered by childless couple after all medical efforts proved abortive, women advancing in age or a defect in
reproductive system has been diagnosed. Problems faced by childless couples included financial constraints, fear of biological parents returning to claim the child, too much bureaucracy routine at office level, stigma in community tagging the child as adopted child, spouse acceptance, poor knowledge of community regarding child adoption, lack of resources and top of all adopted child cannot replace biological child. Study emphasize the support to couples who take decision to adopt and creation of awareness through media and education among community.\textsuperscript{118}

To determine the barriers of child adoption in infertile couples in Iran, a cross sectional study was conducted at infertility clinic of a tertiary care teaching hospital. The sample included 240 infertile couples attending the infertility clinic selected using conventional sampling. Data were collected using structured questionnaire and analyzed by descriptive statistics for continuous variables and t –test and chi square tests for qualitative variables. Finding suggested that although 96% of the respondents heard of child adoption, only 37.3% of couples knew the correct meaning of adoption. Only 24.5% women knew how to adopt a baby while rest had no idea about it. Eighty two percent of participants declared their unwillingness to adopt a baby and 72% of participants felt shy to tell their problem to their friends and family. About one third of the participants (35.6%) said that if they adopt a child they would prefer infancy age. Most of them believed babies bring happiness to their homes. Then main reasons expressed by the participants regarding unwillingness to adopt were: hoping of childbearing (78%), adoption will not solve our problem (65%), adoption not acceptable psychologically (52%), fear of unknown parental history and pedigree of child (48%), not acceptable in culture (41%), fear of future (32%) and adopted child will not be similar to us (31%). Study concluded that biological children are very important for Iranian couples and hoping for child bearing was the main barrier in child adoption.\textsuperscript{119}

A study was conducted to determine the knowledge, attitude and practice of child adoption among infertile Nigerian women. Data collection was done using a questionnaire survey of 279 consecutive infertile women seen in three tertiary care centers in South Eastern Nigeria within a 9-month period. The data were analyzed by means of simple percentages and descriptive and inferential statistics, using t - tests, chi-square tests and regression equations at the 95% confidence level. Two hundred
and sixty-four questionnaires were analyzed. Although 86.4% of the respondents were aware of child adoption, only 27.3% knew its correct meaning. Only 21.6% of respondents knew how to adopt a baby while the rest did not; 69.3% expressed unwillingness to adopt a baby. Only 14.8% of these 81 respondents (or 4.5% of all respondents) had either adopted or made an effort to adopt a child at the time of the study. The major reasons given by 69.3% respondents unwilling to adopt a child were: adoption not a solution to their infertility (84 respondents); adoption psychologically unacceptable (78 respondents); fear of unknown parental background (75 respondents) and abnormal behavior in the child (75 respondents). Univariate analysis showed six factors significantly associated with a favorable attitude to child adoption: a correct knowledge of the meaning of adoption (P=0.00007), duration of infertility>5 years (P=0.0002), previous orthodox specialist treatment (P=0.0002), tubal infertility (P=0.002), no living child (P=0.02) and maternal age >35 years (P=0.03). In a multiple logistic regression involving these six factors, with attitude to adoption as the dependent variable, two factors were associated significantly with a favourable attitude to adoption: correct knowledge of the meaning of adoption (OR=1.9, P=0.04) and previous orthodox specialist treatment (OR=2.9, P=0.05). Although majority have heard of child adoption, only a minority knew its real meaning, legality and the process it entailed. Approximately one-third of respondents were favorable to adoption as a treatment option for their infertility. It was suggested that child adoption should be offered as treatment option so that willing couples can initiate the processes.120

This section had studies related to the views of women/couples with no children regarding adoption. Studies reflected that among factors affecting the views related to adoption, women had personal and social barriers in facilitation of adoption. Lack of knowledge, acceptance by society and family and self attachment with adopted child were main factors affecting opinion about adoption among childless couples/women.

**SUMMARY**

This chapter dealt with the review of literature related to impact of infertility on women’s life in terms of emotional, psychosocial, cultural, marital, sexual relations and financial aspects along with health seeking behavior, adopted coping mechanism and views related to adoption.
Literature was surveyed in order to get familiar with various aspects and issues related to problem under study. A review of research studies conducted in last 15 yrs was done to determine need to study living in experience of infertile women and various dimensions to be studied under this.

It was observed that most of the studies adopted quantitative approach to study individual or two–three aspects of impact of infertility on womens’ life as only few studies explored the emotional and health seeking behavior of infertile couples using qualitative method. Both types of studies helped researcher to identify the aspects which needs to be studied among Indian infertile women. So, in present study, investigator has attempted to find infertile womens’ view regarding infertility disease and how they see, live, seek help and cope with their infertility.

Next chapter will report about research approach, research design, sample and sampling technique, tools, data collection procedure and plan for data analysis.