

**The Islamic University - Gaza**  
**Deanery of high education**  
**Faculty of education**  
**Faculty of nursing**



**The Effectiveness of Psychological Intervention to  
Reduce Anxiety among infertile Women in Gaza**

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

لِلَّهِ مُلْكُ السَّمَاوَاتِ وَالْأَرْضِ يَخْلُقُ مَا يَشَاءُ يَهَبُ لِمَنْ يَشَاءُ  
إِنَّا وَهَبُ لِمَنْ يَشَاءُ الذُّكُورَ \* أَوْ إِزْوَاجَهُمْ ذُكْرَانًا وَإِنَّا  
وَيَجْعَلُ مَنْ يَشَاءُ عَقِيمًا إِنَّهُ عَلِيمٌ قَدِيرٌ \*

سورة - الشورى 49-50

## Abstract

**Background:** according to world health organization, approximately 8-10% couples are facing some kind of infertility problem. which means that 50-80 million people are facing the problem of getting an integrated family globally, anxiety shown to be 8-28% among infertile couples when compared to the general population.

**Objectives:** To investigate the effect of psychological intervention in reducing anxiety among infertile woman's in Gaza.

**Study design:** The researcher adopted the semi experimental approach.

**Setting:** The study was carried out in Albasma infertility center

**Sample:** The study sample was chosen from the specified population to be totally (12).

**Method:** The researcher designed and used a measuring tool to identify the level of anxiety related to infertility, This tool focused on measuring two dimensions, the psychological and social status. The researcher also performed a guidance program to reduce the degrees of anxiety that the women were facing.

**Results:** The percentage weight of anxiety in the pretest was 77.03% after the program application, the percentage weight was reduced to 39.2% in the post test which shows how effective was the guidance program in reducing the high degrees of infertility anxiety and its sides the sample used to have in the pre test. Moreover, the results showed that the percentage weight of anxiety was reduced from 39.2% to 33% in post post test which shows the women had kept the awareness and the knowledge they have learned in controlling their anxiety.

Some of the recommendation that the researcher concluded is that treatment of infertile women in all infertility centers should be through the combined and comprehensive team of both gynecologists and community mental health . The researcher recommended that the media should make the public, especially infertile women, aware about the importance of combined use of psychotherapy and routine treatment to treat infertility. This can help increasing success rate of infertility treatment and can improve the quality of life of these patients. Moreover, the researcher recommended the establishment of centers affiliated to the ministry of health to care for this category in parallel In its sponsorship to the fertile women.

**Key words:** infertility ,anxiety ,Albasma center .

## أثر التدخل النفسي في تخفيض القلق لدى النساء العقيمات في غزة

### ملخص

**خلفية الدراسة :** حسب تقرير منظمة الصحة العالمية 8% -10% تقريبا من الأزواج يواجهون بعض مشاكل الانجاب وهذا يعني انه 50-80 مليون من الازواج يواجهون مشكلة عدم القدرة في تكوين اسره وأن القلق بين الازواج الغير منجبين 8-28% مقارنة بالازواج المنجبين

**أهداف الدراسة :** هدفت الدراسة إلى معرفة أثر التدخل النفسي في تخفيف القلق بين السيدات العقيمات في غزة،  
**تصميم الدراسة:** اعتمدت الباحثة المنهج شبه التجريبي.

**مكان الدراسة :** مركز البسمة للإخصاب.

**عينة الدراسة :** وقد تم اختيار عينة الدراسة والتي تتكون من (12) من النساء اللواتي يعانين من العقم الأولي.

**طريقة الدراسة :** وقامت الباحثة بتصميم واستخدام أداة قياس لتحديد مستوى القلق المرتبط بالعقم هذه الأداة التي تركز على قياس بعدين، النفسي والاجتماعي.وقد قامت الباحثة بتصميم وتنفيذ برنامج ارشادي لتخفيف القلق المرتبط بالعقم لدى النساء.

**نتائج الدراسة :** أظهرت النتائج ان الوزن النسبي للقلق المرتبط بالعقم كان 77,3% وبعد تطبيق البرنامج اظهرت النتائج أن القياس الإجمالي في الاختبار البعدي للقلق المرتبط بالعقم قد انخفض إلى 39.2% مما يظهر مدى فعالية البرنامج الإرشادي في تخفيف القلق المرتبط بالعقم. بالإضافة الى ذلك كان القياس الإجمالي للوزن النسبي في الاختبار التتبعي للقلق المرتبط بالعقم لدى النساء ، قد انخفض من 39.2% إلى 33% مما يوضح أن النساء حافظن على الوعي والمعرفة التي تعلموها في السيطرة على قلقهم .

وقد توصلت الباحثة إلى عدة توصيات ومنها أن معاملة النساء العقيمات في جميع مراكز العقم يجب أن تكون من خلال فريق عمل متكامل يتكون من أطباء أمراض النساء والعاملين في مجال الصحة النفسية المجتمعية. وأكدت الباحثة على دور الوسائل الإعلامية في توعية الجمهور، خاصة النساء المصابات بالعقم، حول أهمية العلاج المشترك من العلاج النفسي والعلاج الروتيني. وهذا يمكن أن يساعد على زيادة نسبة نجاح علاج العقم.

**الكلمات الدالة:** القلق، العقم، مركز البسمة

# **Dedication**

**To the pure spirit of my father, that he wished to live this great**

**moment**

**To my Precious loved mother**

**To my age companion dear husband**

**To my sons, Hamza & Mohammed**

**To my daughters ,Shima ,Jehane & Iman**

**To my brothers, sisters & family.**

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My thanks and respect to the patients who participated in this study and I wish from Allah to compensate them for their patience with boys and girls.

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## **List of abbreviations**

(ACA)	American Counseling Association.
(APA)	American Psychiatric Association
(BDI)	Beck Depression Inventory
(BIS)	Behavioral Inhibition System
(CMHA)	Canadian Mental Health Association
(CBT)	Cognitive Behavioral Therapy
(DRK)	Daily Record Keeping Chart
(DSM-IV)	Diagnostic and Statistical Manual of Mental Disorders
(FFFS)	Fight-Fight-Freeze System
(HADS)	Hospital Anxiety and Depression Scale
(HPAC)	Hypothalamic-Pituitary-Adrenal-cortical
(IVF)	Inventor Fertilization
(OCD)	Obsessive Compulsive Disorder
(PFB)	Partners Charts Fragebogen
(POMS)	Profile of Mood States
(REBT)	Rational Emotive Behavioral Therapy
(RST)	Reinforcement Sensitivity Theory
(RSES)	Rosenberg Self-Esteem Scale
(STAI)	State-Trait Anxiety Inventory
(SPSS)	Statistical Software packages for the Social Sciences
(TMAS)	Taylor Manifest Anxiety Scale
(WHO)	World Health Organization
(ZSDS)	Zung Self-reported Depression Scale

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# Chapter One

## Introduction



## Chapter one

### 1.1 Background

Marriage and reproduction is a major goal of family in our Islamic culture and this is one of the recommendation of the messenger of Allah Mohammed” Allah bees upon him to marry and reproduce. The expectation that a married couple will eventually have children is profound in our society. This is especially true for girls. From the time that they are conscious of themselves as a social beings, they are encouraged to emulate women who long to marry and have children. A girl's closest role model, her own mother, is what many girls aspire to become.

World Health Organization “WHO” (2012) define Mental health as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community”. So be Parenthood is one of the major , normal and valuable transitions in couple life.

From the view point of the researcher when a couple decides that they are ready to have children, they are usually excited and happy about the prospect of bringing new life into the world and this the normal desire the non-fulfillment of a such wish is the beginning of struggles.

According to recent studies by the World Health Organization, (WHO) approximately 8-10% of couples are facing some kind of infertility problem.(Benagiano,G,et al.2006). This means that 50-80 million people Globally are facing the problem of getting an integrated family.

The impact of infertility on psychological functions is a complex matter influenced by a number of variables, such as the investigative procedures involved, the duration of infertility, the diagnosis which is made, or the quality of the couple's relationship and the culture prospective .While treatments for infertility offer much-needed help and hope, they may actually heighten stress and anxiety. Additionally, drugs and hormones used to treat infertility may cause psychological side effects, and their costs are significant. According to one study done by( Deka,KP& Sarma,S. 2010). Three separate factors seem to contribute to the psychological stress to men and

women experience as a result of their infertility. The three factors, in order of importance for the women were:-

1. "Having Children is a Major Focus of Life"
2. "The Female Role and Social Pressure"
3. "Effect on Sexual Life" .

The men in the study reversed the order of importance of factors one and two. The third factor was equally significant to both the men and women. It was also shown that women experienced their infertility more strongly than the men. Women also showed a more intense desire to have a baby than men.

Ideally psychological support services ( training in relaxation, stress management, and coping skills) should be available for all individuals and couples undergoing active physical evaluation and intervention for infertility.

Professionals in the field of assisted reproductive technologies (ARTs) should be aware of the importance of psychological intervention in consumers of infertility treatment, the need to make available a rapid and reliable screening instrument for identifying patients at greater demand for psychological support, and the inclusion of psychological and supportive psychotherapy in the general therapeutic framework of infertility.

However patient who is determined to be highly distressed could be counseled that receiving support services is likely to facilitate treatment, and may increase the chance of pregnancy and decrease the risk of premature termination.

Perhaps it is time to consider psychologically screening all prospective infertility patients. Infertile women report elevated levels of distress, which may in turn contribute to their infertility. If a patient is found to be psychologically healthy, she could undergo therapy knowing that her psychological state should have little or no impact on the outcome. Highly distressed patients have lower pregnancy rates, and are more likely to terminate treatment.

Psychological intervention should be offered at any stage of infertility treatment and not only when treatment fails. It might be useful to provide written information on common emotional / psychological reactions to infertility, and information about coping with this condition. For those couples whose coping resources are inadequate and/or depleted,

therapist must make efforts to contact such patients individually to discuss the potential benefits of using counseling and/or participating in support groups.

## **1.2 Problem statement:**

According to the world health organization infertility incidence rates have been on arising globally in recent years approximately 8-10% of couples are facing some kind of infertility problem. (Benagiano,G. et al.2006). This means that 50-80 million people Globally are facing the problem of getting an integrated family.

Internationally most of infertility centers deals in a comprehensive (biopsychosocial) with infertile women as most of the previous study in this field approved their psychosocial complain .

In our country Palestine there is an increasing rise of the infertility centers ,

While the researcher review about the services that offered in that centers the researcher note that the infertile women receives pure physical services nor psychological services despite of the research documentation of their psychological suffering .

On the other hand most efforts of the ministry of health is directed toward the fertile women through the anti natal and post natal clinics and these services offered free in all over Gaza strip . So from this problem the main question of the study has been emerged.

What is the effect of psychological intervention in reducing anxiety among the infertile women in Gaza ?

## **1.3 Objectives:**

### **1.3.1 General aim of study**

To know the effect of psychological intervention in reducing anxiety among infertile woman's in Gaza.

### **1.3.2 Specific objectives**

1-To identify the level of anxiety among the members of the sample before and after the application of the program.

2- To investigate the level of the overall degree of anxiety and dimensions before and after the application of the program related to the post test.

3-To identify the level overall degree of anxiety and dimensions between the post and the follow up test related to the post post test .

4 – To assess the differences between the pre and post test in relation to the following sociodemo-grafic data (age ,number of marriage years ,relative between the husband ,house holed type ,lateness of child bearing is related to the wife or the husband, the frequency of inventor- fertilization (IVF) , level of education for the couples.

## **1.2 Study questions**

1-What is the level of anxiety among the members of the sample before and after the application of the program.

2-Are there a statistically significant differences in the overall degree of anxiety and dimensions before and after the application of the program to the right of the post test.

3-Are there a statistically significant differences in the overall degree of anxiety and dimensions between the post and the follow up test related to the follow up test .

4- Is there astatically significant differences between the pre and post test attributed to the following socio-demographic data (age ,number of marriage years ,relative between the husband ,house holed type ,lateness of child bearing is related to the wife or the husband, the frequency of invetro fertilization (IVF) , level of education for the couples).

## **1.4 Significance of study**

world health organization focuses on integrating the psychological services with medical services This research study may will be a step of this integration that to offer psychological services with physical treatment in infertility centers.

The international study that done in this filed assured the followings

1- That infertility is multidimensional problem, it impact on the psychological wellbeing of the couples has been the object of increasing attention in recent years among females it associated with severe psychological distress using various coping mechanism to improve their over quality of life. (Joshi,H&Singh,R.2009).

- 2- That the psychological intervention improve the relation and marital adjustment among the infertile couples (Schimit ,L.2005).
  - 3- That psychological intervention improve the psychological and social well being among the infertile couples.(Chy,C.2006) ;(Emery ,M.(2006)&(Zehen,XH.,etal. 2006).
- ❖ stress faced by infertile women are one of the important factor that influenced and suppress the reproductive function of the women,as high circulating stress hormones can defect the mechanisms of ovulation , shorten the luteal phase. Affect the progesterone availability in the luteal phase &successful endometrial thickness, which may diminish the process of implantation and early pregnancy maintenance by luteal phase ( Facchinetti, F.,etal.2007). On the other hand Psychological intervention can increase pregnancy rate among the infertile couples' whom receive psychological intervention nearby physical treatment (Domer ,A.2000); (Sturass,B.etal,2002);(Levitas ,E.et al .2006)&(Ramezanzadeh ,F.2011).
  - ❖ This the first study to be done in Palestine in this field as the researcher knows

## **1.5 Researcher operational definition:**

### **The researcher adopted the following definitions:**

#### **Psychological intervention:**

It refers to a group of education and skills training sessions designed by the researcher depending on Rational Emotive Behavioral therapy and religious therapy, aimed to improve psychological wellbeing, increase awareness, develop insight. The desired result enable other choices of thought, feeling or action to enhance the sense of well-being and better manage subjective discomfort or distress among the infertile women in Gaza.

#### **Anxiety**

It a stat of emotional and psychological reaction (tention ,excessive worry , fear about the uncertain future) that accompanied with physical symptoms all of this arise as a result the inability to conceive ,identified by the measuring questionnaire developed by the researcher .

## **Infertility**

It refers to the women's who can't conceive or complete pregnancy until full term after one year of marriage without using any type of contraceptive, there age between(20-40) years whom follow in Albasma infertility center , lives in Gaza city, agree to be a member of the program group.

### **1.6 General review of study chapters**

This study consists of five chapters and organizes as follows:

Chapter one : Includes study proposal which includes the introduction, research questions, objectives, significance of the study and demographic contest.

Chapter two : Focuses on the conceptual framework of the study which include psychological intervention , Anxiety, infertility. HJ

Chapter three :literature review which include studies concern with the study.

Chapter four : Present a detailed description of the research methodology of this study that includes; sample and sampling, design, population, steps of instrument building , programe building and application ,data analysis and ethical consideration.

Chapter five : This chapter will include the results & Discussion recommendations and suggestions .

# **Chapter two**

## **Theoretical framework**

## Chapter two

### Theoretical framework

In this chapter the researcher will clarify the following variables

#### ❖ **psychological intervention**

In this part the researcher will clarify the following :

Definition of psychological intervention, types of psychological intervention, theoretical approach of psychological intervention, models of carrying out psychological intervention .

#### ❖ **Anxiety**

In this part the researcher will clarify the following items Defining fear and anxiety, comorbidity of anxiety with medical & psychiatric disease, Prevalence of anxiety, Theory of anxiety, Types of anxiety, Signs and symptoms of anxiety, Treatment of anxiety, Ways to make treatment more effective

#### ❖ **Infertility**

In this part the researcher will clarify the following items:- definition of infertility causes of infertility, incidence of infertility, infertility specific theoretical frameworks, finally the psychological and social impacts of infertility.

It is difficult to give single definition of psychological intervention as it is the umbrella that covers a broad range of many interventions .

### **1 Psychological intervention**

#### **2.1.1. Definition of psychological intervention.**

Psychological intervention can be defined according to (Clark,CR.,et al.2005). A therapy that develops in order to help the client to take control or regain control by teaching them problem solving skills coping skills & strategies to manage their pain , psychosocial problems.

and the researcher defines it as a broad range of treatment services designed to assist people in managing their lives more effectively, and achieving greater satisfaction with themselves, their relationships, and their careers, also provide diagnostic and testing services to help identify psychological problems, assess various psychological variables, and to make recommendations about a person's potential adjustment in a variety of situations.



### 2.1.2 Psychological interventions are two types

- psychological counseling.
- psychotherapy.

#### **Counseling**

Is a concept that has existed for a long time. We have sought through the ages to understand ourselves, offer counsel and develop our potential, become aware of opportunities and, in general, help ourselves in ways associated with formal guidance practice .

#### **Definition of Counseling**

It is difficult to think of a single definition of counseling. This is because definitions of counseling depend on theoretical orientation.

*"...counseling can be...defined as a relatively short-term, interpersonal, theory-based process of helping persons who are basically psychologically healthy resolve developmental and situational problems"* (American Counseling Association.2007).

The purpose of the relationship is that the counselor helping one or more clients to solve issues, concerns or problems which arise from attempts to cope with life in an increasingly complex world. (Maples,M.1996).

And the researcher define it as Actively listening to an individual's story and communicating understanding, respect and empathy, clarifying goals and assisting individuals with the decision-making process. Counseling is a mutual relationship between counselor (a professionally trained helper) and a client (a consumer of counseling services). Treatment of everyday problems is more often referred to as counseling (a distinction originally adopted by Carl Rogers)but the term is sometimes used interchangeably with "psychotherapy".

#### **Psychotherapy**

Psychotherapy can be defined as an interpersonal, relational intervention used by trained psychotherapists to aid clients in problems of living. This usually includes increasing individual sense of well-being and reducing subjective discomforting experience. Psychotherapists employ a range of techniques based on experiential relationship building, dialogue, communication and behavior change and that are designed to improve the mental health of a client or patient, or to improve group

relationships (such as in a family). Psychotherapy may be performed by practitioners with a number of different qualifications, including psychologists, marriage and family therapists, licensed clinical social workers, psychiatric nurses, and psychiatrists. (Wampold,B. 2010).

Most forms of psychotherapy use only spoken conversation, though some also use various other forms of communication such as the written word, artwork, drama narrative story, music, or therapeutic touch. Psychotherapy occurs within a structured encounter between a trained therapist and client(s). Purposeful, theoretically based psychotherapy began in the 19th century with psychoanalysis; since then, scores of other approaches have been developed and continue to be created. (John,R.2003). Therapy is generally used to respond to a variety of specific or non-specific manifestations of clinically diagnosable crises.

Some practitioners, such as humanistic schools, see themselves in an educational or helper role. Because sensitive topics are often discussed during psychotherapy, therapists are expected, and usually legally bound, to respect client or patient confidentiality. (Kirk ,S.2001).

From the researcher overview it's a purposeful and willing relationship between at least two people, one who is supposed to know what he is doing, and the other who wants help to change his life for the better .

It also the process by which we examine our thoughts, feelings, actions and relationships , evaluate where problems exist, or where changes are likely to improve our life satisfaction , adjustment& learn how to make the changes that are necessary to achieve better life adjustment and satisfaction. more realistically and have the desire to cope effectively with our problems This all with the assistance of a skilled professional.

### **2.1.3 Main goal of psychotherapy**

(Matthew ,N.2003).Clarify the of psychotherapy as demonstrating therapeutic techniques that cause positive outcomes (i.e., decrease distress, dysfunction, and impairment; increase adaptive functioning). Understanding the processes or mechanisms through which the disease occurs, so general goals of psychotherapy are as follows:-

- Removal of distressing symptoms.
- Altering disturbed patterns of behavior.
- Improved interpersonal relationships(d) Better coping with stresses of life.
- Personal growth and maturation.

#### **2.1.4 Theoretical approaches of Psychological intervention :**

In this part the researcher will the theoretical approach of psychological intervention in general then the researcher will point to the theory that adopted in the program building and application which is Rational Emotive Therapy as it's part of Cognitive-behavioral theory.(CBT ) and religious therapy .

Broadly, there are 4 different theoretical approaches adopted in psychological intervention .(Bloch,S. 1996 ). They have their basis in:

- Cognitive-behavioral theory.
- Interpersonal or systemic theory.
- Existential or gestalt philosophy.
- Religious therapy

##### **2.1.4.1.Cognitive behavioral therapy (CBT)**

Is a psychotherapeutic approach aims to solve problems concerning dysfunctional emotions, behaviors and cognitions through a goal-oriented, systematic procedure in the present. It is used in diverse ways to designate behavior therapy, cognitive therapy, and to refer to therapy based upon a combination of basic behavioral and cognitive research. (British Association for Behavioral and Cognitive Psychotherapies.2008).

There is empirical evidence that CBT is effective for the treatment of a variety of problems, including mood, anxiety, personality, eating, substance abuse, and psychotic disorders. (Butler,AC.,et al.2006) & (Mick, C.2008).

Treatment is sometimes manualized ,with specific technique-driven brief, direct, and time-limited treatments for specific psychological disorders. CBT is used in individual therapy as well as group settings, and the techniques are often adapted for self-help applications. Some clinicians and researchers are more cognitive oriented (e.g. cognitive restructuring). While others are more behaviorally oriented in vivo exposure therapy). Other interventions combine both (e.g. imaginable exposure therapy). (Foa,E.2011) &(Abramowitz,J S., et al.2001).

#### **2.1.4.2. Interpersonal or systemic theory**

Interpersonal systems theory is a new theory which shows how relationships and groups are alive and explains how they work as living entities or systems, aims to define or achieve personal goals through interaction with others ,Seeing relationships as systems means seeing the living connections and processes between people and their environment as opposed to focusing on static parts .

Interpersonal systems theory applies systems thinking to help us understand a broad array of interpersonal behaviors and this opens up a whole new world of understanding of life forces working in relationships and groups, and why they grow and thrive, or become dysfunctional. People cope with this pressure by creating patterns and seeking to find dynamic balances communication as the major tool for managing . . (Connors,J & Caple,R.(2005).

#### **In summary**

Systems approaches focus on the communication that takes place among groups of interacting individuals, it focuses on patterns of communication that exist to sustain homeostasis and achieve systemic goals. The approach also recognizes the influences of larger super systems as well as subsystems. As a theoretical approach, it is typically perceived as a description of interpersonal communication, rather than as providing specific testable principles

#### **2.1.4.3. Existential or gestalt philosophy**

Gestalt therapy can be considered both a paradoxical and an experiential/experimental approach. Emphasis is on what is being done, thought, and felt at the present moment not o rather than on what was, might be, could be, or should have been. Gestalt therapy is a method of awareness practice (also called "mindfulness" in other clinical domains), by which perceiving, feeling, and acting are understood to be conducive to interpreting, explaining, and conceptualizing . Brownell,P.(2010).

Gestalt therapy can be described as "*a conceptual and methodological base from which helping professionals can craft their practice*".. (Edwen,N.2000).

Gestalt therapy is built upon two central ideas: that the most helpful focus of psychotherapy is the experiential present moment, and that everyone is caught in webs

of relationships, thus, it is only possible to know ourselves against the background of our relationship to the other. The client learns to become aware of what he or she is doing and that triggers the ability to risk a shift or change. (Latner, J. 2000).

In summary gestalt therapy enable the client to become more fully and creatively alive and to become free from the blocks and unfinished business that may diminish satisfaction, fulfillment, and growth, and to experiment with new ways of being by . focusing on process (what is actually happening) as well as on content (what is being talked about).

#### **2.1.4.4 Religious therapy:**

Allah the Exalted has said " and when I am sick, then he heals me "( Ash-Shu'arâ : The Poets: 80) and the prophet Mohammed ( peace be upon him) has said: " Oh God, you are the healer, Grant us Healing that does not exclude any Ailment".

Reciting the holy Quran leads to feel secure and prevents from disorder . The prophet Mohammed( peace be upon him) has said:" take medicines but do not take what are forbidden ". Allah the highest has created no disease for which there is no treatment , so people should seek treatment upon the scientific methods.

Also, the holy Quran calls people to be patient and don't feel panic in their life situations as Allah the Exalted has said: "... and bear with patience whatever may befall thee" (lokman:17).

(Alnabulsi ,M. 2001). In his Encyclopedia of Humanity science views that Hope and optimism is the way to get rid of anxiety, therefore the prophet Mohammed (peace be upon him) has advised his companions of hope, optimism and good manners and he has said: " Righteousness is in good character, and wrongdoing is that which wavers in your soul, and which you dislike people finding out about".

The prophet Mohammed ( peace be upon him) ordered his companions to self-control , avoid anger and to follow practical steps to get rid of anxiety as waiting the next prayer and performing charity which extinguishes sin as water does with water.

He also said: " follow up a bad deed with a good one and it will wipe it out, and behave well towards people".

All these guidance make the person in a state of tranquility and enable him to get rid of anxiety.

There is no doubt that the most important subjects of concern are feelings of loneliness and loss, the spiritual emptiness as well as not commitment to Allah. Thus the Islam provides all the needs of the spiritual therapy through consciously recitation of Quran , commitment to prayers which take the mind and the conscious in addition to the remembrance of Allah that lead to get rid of loneliness, anxiety and spiritual loss and achieve strong commitment to Allah.

Thus we can say that the individual seeks to achieve many goals by different ways but these goals can face different obstacles whether it were of nature or human beings, which put the individual in an inner conflict to overcome conflicts and obstacles related to anxiety. So there is an urgent need to a supreme power that support people and help them to reach the right path and this power can only be achieved by adherence to religion throughout the faith of Allah. Allah the Exalted has said: "Those who believed, and whose hearts find rest in the remembrance of Allah, verily, in the remembrance of Allah do hearts find rest". (El-Ra'ad: 28)

Faith has a great influence on human psychology throughout strengthening the religious restraint, improving self-confidence and being patient consequently getting rid of anxiety and tension in daily life situations. Some psychologist and psychiatrists focused on the importance of faith in treating anxiety and tension in addition to achieving security and tranquility for example, Dale Carnegie confirmed the role of faith in Allah to treat anxiety and stress and said that psychiatrists know that strong faith and adherence to religion are sufficient to beat anxiety ,stress and most of the illnesses.

#### **2.1.4.1 Rational Emotive Behavioral Therapy (REBT)**

REBT (originally called RET) called 'Rational Therapy', soon changed to 'Rational-Emotive Therapy' and again in the early 1990's to 'Rational Emotive Behaviour Therapy' was developed by Albert Ellis in the mid-1950s, a one-time psychoanalyst, who found the latter did not achieve very good results. Although, he tried other types of psychodynamic therapy he still didn't achieve the level of success he wanted. However, he observed that when Cognitive therapy changed their beliefs about themselves, their

problems and the world, they tended to improve more quickly than using psychodynamic approaches (Ellis,

Rational Emotive Behaviour Therapy REBT is one of a number of therapies that come under the heading 'cognitive-behavioural' based on the concept that emotions and behaviours result from cognitive processes and that it is possible for human beings to modify such processes to achieve different ways of feeling and behaving'. (Froggatt, W. 2005).

### **Definition**

Rational Emotive Behavior Therapy (REBT), previously called rational therapy and rational emotive therapy, is a comprehensive, active-directive, philosophically and empirically based psychotherapy which focuses on resolving emotional and behavioral problems and disturbances and enabling people to lead happier and more fulfilling lives. (Overholser, J.C.J. 2003).

### **Theory of causation**

The fundamental premise of REBT is that almost all emotions and behaviours are caused by what people believe about the situations they face. REBT proposes a 'biopsychosocial' explanation of how humans come to feel and behave; that is to say, that Ellis also believed biological, and social factors along with cognitive factors are involved in the experiencing and acting process. This point is important because it suggests there are limits as to how much a person can change.

The REBT framework assumes that humans have both innate rational (meaning self- and social-helping and constructive) and irrational (meaning self- and social-defeating and un-helpful) tendencies and leanings. REBT claims that people to a large degree consciously and unconsciously construct emotional difficulties such as self-blame, self-pity, clinical anger, hurt, guilt, shame, depression and anxiety, and behaviors and behavior tendencies like procrastination, over-compulsiveness, avoidance, addiction and withdrawal by the means of their irrational and self-defeating thinking, emoting and behaving. REBT is then applied as an educational process in which the therapist often active-directively teaches the client how to identify irrational and self-defeating beliefs and philosophies which in nature are rigid, extreme, unrealistic, illogical and absolutist, and then to forcefully and actively question and dispute them and replace them with more rational and self-helping ones. By using different cognitive, emotive and

behavioral methods and activities, the client, together with help from the therapist and in homework exercises, can gain a more rational, self-helping and constructive rational way of thinking, emoting and behaving. .(Elis,A.2003).

### **ABC MODEL**

Ellis put forward an ABC model to explain his ideas.

**A** represents an activating event.

**B** represents the beliefs about the event (which is critical for Ellis' theory)

**C** represents the emotional and behavioural consequences following the beliefs. For Ellis, we are what we think and we disturb ourselves when we tell ourselves repeatedly irrational sentences that we have learned from our backgrounds or devised ourselves.

(Froggat ,W 2001) slightly reformulated Ellis' model by extendin

**A** to include an activating event plus a person's inferences or interpretations about the event.

**B** represents his evaluations of his inferences derived from his core beliefs about the event (which is critical for Ellis' theory); not just a belief but includes both an evaluation of the inference made which is derived or founded in a largely unconscious core belief

**C** represents the emotional and behavioural consequences following the beliefs.

### **Objective**

One of the main objectives in REBT is to show the client that whenever unpleasant and unfortunate activating events occur in people's lives, they have a choice of making themselves feel healthily and self-helpingly sorry, disappointed, frustrated, and annoyed, or making themselves feel unhealthily and self-defeatingly horrified, terrified, panicked, depressed, self-hating, and self-pitying. By attaining and ingraining a more rational and self-constructive philosophy of themselves, others and the world, people often are more likely to behave and emote in more life-serving and adaptive ways. (Debidin, M. and Dryden, W. 2011).



## **IRRATIONAL THINKING**

(Froggatt, W .2001) .Presents three criteria for describing a belief as irrational:

‘It blocks a person from achieving their [sic] goals, creates emotions that persist and which distress and immobilize, and leads to behaviors that harm oneself, others, and one’s life in general, it distorts reality (it is a misinterpretation of what is happening and not supported by the available evidence);’

It contains illogical ways of evaluating oneself, others, and the world: demandingness, awfulising, discomfort-intolerance and people-rating.’

REBT commonly posits that at the core of irrational beliefs there often are explicit or implicit rigid demands and commands, and that extreme derivatives like awfulizing, frustration intolerance, people deprecation and over-generalizations are accompanied by these. According to (Lyons, L. C., & Woods, P. J 2001).

REBT the core dysfunctional philosophies in a person's evaluative emotional and behavioral belief system, are also very likely to contribute to unrealistic, arbitrary and crooked inferences and distortions in thinking. REBT therefore first teaches that when people in an insensible and devout way overuse absolutistic, dogmatic and rigid "shoulds", "musts", and "oughts", they tend to disturb and upset themselves.

## **HELPING PEOPLE TO CHANGE**

In REBT, clients usually learn and begin to apply this premise by learning the A-B-C-model of psychological disturbance and change

(David, D. et al. 2005). summaries this process of change by listing the following seven steps in what he calls a ‘philosophical restructuring’ of the personality.

Acknowledge that we largely create our own emotional distress

Accepting that we can change these disturbances significantly;

Recognising that our distresses come largely from irrational beliefs;

Believing in the value of disputing these beliefs

Identifying these core beliefs; believing in the value of disputing these beliefs;

Realising that hard work is needed to change these beliefs.

Practising REBT methods for the rest of our lives

## **2.1.6 Models of psychological intervention**

**Psychological intervention can be carried out in four models namely with:**

\*Individuals

\*Families

\* Groups ( which is the researcher depend on carrying out the program sessions ).

### **2.1.6.1.Individual therapy**

Individual psychotherapy, as the verbal interaction between two the therapist and the individual seeking help. These two work together to identify and address the individual's problems with the expectation of making a positive change. The change is directed at characteristically fixed patterns of thought, feeling, or behavior that are causing difficulties. . individual therapy may encompass many different treatment styles including psychoanalysis and cognitive-behavioral therapy. (Craighead,E.,etal.2001).

### **2.1.6.2.Couples' therapy :**

Couples therapy is a form of psychological therapy used to treat relationship distress for both individuals and couples The purpose of couples therapy is to restore a better level of functioning in couples who experience relationship distress. The reasons for distress can include poor communication skills, incompatibility, or a broad spectrum of psychological disorders that include domestic violence, alcoholism, depression, anxiety, and schizophrenia.(Sperry ,L.,etal.2006).

### **2.1.6.3. Group therapy:-**

Group therapy can be defined as a form of psychosocial treatment where a small group of patients meet regularly to talk, interact, and discuss problems with each other and the group leader (therapist) With the purpose to give individuals a safe and comfortable place where they can work out problems and emotional issues. Patients gain insight into their own thoughts and behavior, and offer suggestions and support to others. In addition, patients who have a difficult time with interpersonal relationships can benefit from the social interactions that are a basic part of the group therapy

experience . Which the researcher adopted in the program application. ( Barbara, K. &Schwartz, K.2003) .

#### **2.1.6.4.Family therapy:-**

Family therapy is a type of psychotherapy that involves all members of a nuclear family or stepfamily and in some cases, members of the extended family (e.g., grandparents). Conducts in multiple sessions to help families deal with important issues that may interfere with the functioning of the family and the home environment (Mary Lou, H. 2003).

The purpose to help family members improve communication, solve family problems, understand and handle special family situations (for example, death, serious physical or mental illness, or child and adolescent issues. To create better functioning home environment for families with one member who has a serious physical or mental illness. Family therapy can educate families about the illness and work out problems associated with care of the family member (Linda,C. 2004).

Family therapy most often is used when the child or adolescent has a personality, anxiety, or mood disorder that impairs their family and social functioning, and when a stepfamily is formed or begins having difficulties adjusting to the new family life. Families with members from a mixture of racial, cultural, and religious backgrounds, as well as families made up of same-sex couples who are raising children, may also benefit from family therapy Family therapy involves multiple therapy sessions, usually lasting at least one hour each, conducted at regular intervals (for example, once weekly) for several months. (Deborah, H. 2004).

#### **2-Anxiety**

Many different words in the English language relate to the subjective experience of anxiety such as “dread,” “fright,” “panic,” “apprehension,” “nervous,” “worry,” “fear,” “horror,” and “terror” This has led to considerable confusion and inaccuracy in the common use of the term “anxious. There for must be clearly distinguished that help's to offer guidance for research and treatment of anxiety .

### 2.2.1. Differentiation between of Anxiety and fear :-

In order to understand anxiety we have to differentiate between fear and anxiety

All emotion theorists who accept the existence of basic emotions, however, count fear as one of them, as it is a part of our emotional nature, occurs as a healthy adaptive response to a perceived threat or danger to one's physical safety and security. It warns individuals of an imminent threat and the need for defensive action (Ohman, A & Wiens, S. 2004).

(Barlow, DH. 2002). On his differentiation between anxiety and fear stated that "*fear is a primitive alarm in response to present danger, characterized by strong arousal and action tendencies*". On the same volume defined anxiety as "*a future-oriented emotion, characterized by perceptions of uncontrollability and unpredictability over potentially aversive events and a rapid shift in attention to the focus of potentially dangerous events or one's own affective response to these events*".

Differentiate between the fear & anxiety fear is apprehension or excessive fear about real or imagined circumstances. and this excessive worry is unproductive, because it may interfere with the ability to take action to solve a problem & the symptoms of anxiety may be reflected in thinking behavior, or physical reactions. (Thomas J. Huberty. 2004)

Anxiety can be defined according to (Bush, N.J & Griffin-Sobel, J.P. 2002). As an emotional or physiological response to known and/or unknown causes that may range from a normal reaction to extreme dysfunction (indicative of an anxiety disorder), affect decision-making and adherence to treatment, and impair functioning and/or affect quality of life.

While (American Psychiatric Association 2000) . (APA). Define anxiety as marked Distress that lead to marked interference with the person's normal routine, occupational or (academic) functioning, or social activities or relationships and this one of the core diagnostic criteria for most of the anxiety disorders.

The nature of anxiety as state or trait nature

State anxiety is a transitory unpleasant emotional arousal stemming from a cognitive appraisal of a threat of some type.

Trait anxiety is a stable personality quality (stable individual difference) in the tendency to respond to threat with state anxiety. (Linda Joseph 2005).

### 2.2.1.1 Summary

Anxiety concept is distinct and dependable and most of this dependency is the psychosocial physical impairment . On the other hand anxiety is a common experience to all of us on an almost daily basis. Many people meet the criteria of anxiety but they use individual coping mechanism to overcome this symptoms. Often, they use terms like jittery, high strung, and uptight to describe anxious feelings. By the way feeling anxious is normal and can range from very low levels to such high levels that social, personal, and academic performance is affected. At moderate levels, anxiety can be helpful because it raises our alertness to danger or signals that we need to take some action. When anxiety becomes excessive beyond what is tolerable problems arise in social, personal, and academic functioning may occur, resulting in an anxiety disorder. The definition that agreed with the researcher study is excessive uncontrolled worry about the present & future which may lead to disturbance of the normal life .

### 2.2.2 Prevalence of anxiety :

National Co morbidity Survey Replication Initiative found that anxiety was the most common disorder in every country except the Ukraine (7.1%), with 1-year prevalence ranging from 2.4% in Shanghai, to 18.2% in the United States, also anxiety disorders was the most prevalent form of psychological disturbance.( Kessler, RC. etal. 2005).

*About the gender* on the teenager stage girls suffer higher rates of anxiety disorders than boys. (Costello, EJ.,etal.2003) .

*At the stage of tensile* Female have a significantly higher incidence of most anxiety disorders than male with the possible exception of OCD, where the rates are approximately equal .

Community-based and epidemiological studies generally have confirmed a 2:1 ratio of female to male in prevalence of anxiety disorders .(Olson, M.,et al .2000).

### 2.2.2.1 Summary

Anxiety is a part of thought as human being because the future is almost unknown may part of it can be expected to some extent but not hundred percent this remaining part is source of worry ,even the present is a source worry this may be related to our

limited ability to have full control all over the aspect of our life so we get worry at different level, some of us fall victims to their thought and worry ,other may manage. As Muslims our beliefs that Allah is the only hundred percent justice and the most merciful and he decide what good to us this may enhance our patience and tolerance which in turn reduce our anxiety.

### **2.2.3 Co morbidity of anxiety with medical& psychiatric disease:-**

Comorbidity means occurrence of one or more disorders to the same individual either psychiatric or medical disease.

Anxiety may delay the physical treatment of the medical illness by prolongation the treatment periods and making it more complex this may be related to the misdiagnosis with some medical disease as anxiety have physical symptoms,patients with anxiety disorders seek out medical advice in disproportionate numbers. Studies of primary health care patients find that 10–20% have a diagnosable anxiety disorder . (Ansseau,M.,et al.2004) ; (Sleath, B. & Rubin, RH. 2002).

Moreover, anxiety may have co morbid either with medical or psychiatric disorder individuals with an anxiety disorder are much more likely to have at least one or more additional disorders than would be expected had a lifetime co morbid diagnosis This co morbidity either with psychiatric or medical condition and it is one of the strongest challenges to the categorical perspective is the evidence of extensive symptom and disorder co morbidity in both anxiety and depression .However anxiety and depression appear to play an important and complex role in determining adaptation to the disease this about the psychological co morbidity, about the co morbidity with medical illness several mostly epidemiological studies underlined the significance associations between anxiety and medical disease e.g. Diabetic Mellitus,Congestive heart disease either in incidence or the recurrence. ( Kubzansky ,LD.,etal.2006) . Roupa,Z.,etal.2009).

This wide associations between anxiety either with psychiatric or medical disease a phenomena deserve more research . Pointed to the comorbidity between infertility and anxiety as it may be the cause of infertility ".....*type of infertility in which no medical cause can be diagnosed, was strongly associated with psychological dysfunction*" ( Larsen, U.2005).

## **2.2.4 Theory of anxiety disorder**

There are no clear-cut answers as to why some people develop an anxiety disorder, although research suggests that a number of factors may be involved. Like most mental health problems, anxiety disorders appear to be caused by a combination of biological factors, psychological factors and challenging life experiences. Theories of anxiety are highly diverse, but, for convenience, it was grouped into three categories:

- ❖ First, theories that have been historically influential but have faded into the background of contemporary accounts. These include Freudian psychoanalysis and two models inspired by animal research.
- ❖ Second Learning theory supposes that anxiety reflects basic conditioning processes. Drive theory proposes that anxiety contributes to the organism's overall strength of motivation.
- ❖ Third , modern psychobiological theories which build on the initial insights of learning and drive theory, in the context of a much deeper understanding of the neural systems that regulate anxiety.
- ❖ Fourth cognitive theories, in which it is biases (or even faults) in the processing of information that produce anxiety and its behavioral correlates.

### **2.2.4.1 THEORETICAL PERSPECTIVES OF HISTORICAL INTEREST**

#### **2.2.4.1.1. The Psychoanalytical Model**

The psychoanalytical model is one of the earliest and most influential models of anxiety. This model has had an enormous impact on Western thought and modern civilization, contributing to both clinical nomenclature and practice (Pervin, L. A., et al. 2005).

In fact Freud the founder of psychoanalysis was the first to draw attention to the pivotal role of anxiety in personality dynamics and developmental theory. Freud believed that anxiety can be adaptive if the discomfort that goes with anxiety motivates people to learn new ways of approaching life's challenges. However, it would be generally considered abnormal to feel strong chronic anxiety in the absence of any obvious source of threat, danger, or harm in the environment.

Freud distinguished three types of anxiety (a) objective (reality) anxiety, (b) neurotic anxiety, (c) moral anxiety. This distinction helps to clarify when anxiety is adaptive, and when, as in neurotic anxiety, it is psychologically harmful.

**Reality anxiety:** is rooted in the real world and refers to the fear and apprehension of a stimulus that is objectively dangerous. This is the kind of fear that we experience when there is a realistic danger present, of various kinds.

**Neurotic anxiety:** the historical root of the trait anxiety concept Is a signal that unconscious material is threatening to enter consciousness. Neurotic anxiety arouses when the ego feels it is going to be overwhelmed by libidinal urges and impulses stemming from the basic impulses of the id (sex, aggression).

Neurotic anxiety does not involve fear of the id's urges per se but, rather, fear of punishment that may result from expressing them. The generation of anxiety is the ego's reaction to internal turmoil and conflict and is designed to signal the ego that there is a threat of a breakdown of defenses. (Reiss, S. 1997).

**Moral anxiety** refers to people's experience when they are about to violate, or when they have already violated, internalized values or moral codes.

Moral anxiety is generated by the conflict between the biological urges of the id and the moral and ideal standards of society represented by the superego. The impulses are in opposition to moral and ideal standards of society and are subjectively experienced as shame or guilt. The punishment by the superego is at the root of moral anxiety.

#### **2.2.4.2 Learning Models of Anxiety**

Human learning involves long-lasting changes in cognition or behavior due to environmental experiences. According to learning theorists, anxiety is best viewed in terms of behavioral response tendencies learned as a result of the person's cumulative experience with environmental threats over time ,it seems reasonable that a person might learn through a series of unfortunate experiences that places, people, and events around which their life revolves are threatening, and, in consequence, become prone to anxiety responses. The scientific principles and models of human learning may be useful in accounting, in part, for an individual's acquisition of anxious behaviors in response to certain environmental stimuli. (Pekrun,R.2009).



#### **2.2.4.2.1 Classical Conditioning of Anxious Behaviors.**

Principles of classical learning may account for both the initial acquisition of anxiety reactions to certain cues or stimuli as well as the maintenance of these reactions over time. The essence of learning theory models of anxiety is that anxiety and fear are acquired by conditioning or other learning processes, and these in turn, generate escape or avoidance behaviors. The anxiety or fear persists in part because it is at least partly successful in leading to escape or avoidance behavior, followed, in turn, by a significant reduction in anxiety or fear. Such ideas have a long and fruitful history in psychology. (Rachman, S. 2004).

#### **2.2.4.2.2 Drive Theory**

Another influential learning theory of anxiety, Spence and Spence's drive theory, was based on Hull's learning theory. Hull was concerned with how motivation influenced the execution of learned responses. He began with the obvious point that conditioned behaviors are more likely to be performed if they meet an immediate motivational need. Drive theory has concepts basic concept.

##### ***Drive (D)***

Refers to the various need states of an individual that combine to determine his or her total level of motivation at a particular time. Drive is viewed as a global energizer resulting from motivational states within the person another important concept,

##### ***Habit strength (H)***

Is defined as the strength of the tendency to make a particular response to a specific stimulus, based on previous conditioning (the frequency of past reinforcement of a particular response).

##### ***Excitatory potential (E)***

Is defined as the statistical probability that a particular response or set of responses will occur.

The theory makes a basic, testable prediction that anxiety impair performance in situations where there is high response competition—that is, various in correct responses are available that may compete with selection of the correct response .

### **2.2.4.3 THEORY OF MODERN BIOLOGICAL PERSPECTIVES**

#### ***2.2.4.3.1. Evolutionary Perspectives***

Over a century ago, Charles Darwin discerned that the communication and expression of emotions has considerable survival utility accordingly, emotional expression (facial expressions, posturing, action tendencies, etc.) serves to signal messages to others in the social group so that behavior and action can be smoothly coordinated and imminent danger avoided or circumvented. Anxiety is a functional emotion with deep evolutionary origins, reflecting the fact that the earth has always been a hazardous environment to inhabit and humans have always needed to be on the watch for dangers in the environment.

In modern evolutionary psychology emotions are universal hard-wired affect programs designed to serve as barometers of ego functioning. Thus, emotions such as anxiety serve as an "online" indicator of how successful, or not, we are in adapting to the threats and challenges in our immediate environment. (Ohman, A. 2008).

(Keltner, D & Haidt, J. 2001). View "anxiety as information" suggests that this emotion represents and signals to the individual relevant information concerning danger in the face of uncertainty. Thus, if we do get anxious and upset, this is prima facie evidence that something important is at stake and we perceive that our personal resources are being endangered or threatened. Often, the threat is social in nature—for example, the dangers of losing physical resources (e.g., food) to others, social status, or the affections of a loved one.

#### **2.2.4.3.2. Functional Neurobiological Perspectives**

One of the pioneering theories in the field put forth by Eysenck that there are some part of the brain termed the visceral brain (hippocampus, amygdala, septum, and hypothalamus which today is more commonly termed the limbic system, These limbic structures (amygdala, entorhinal cortex, hypothalamus, hippocampus, fornix, etc are commonly linked to emotion and motivation, and, in evolutionary terms, are more

primitive than the cerebral cortex, which is the site of higher cognitive functions, such as language and thought. (Eysenck, M. 1997).

Although most theorists would agree on the importance of the limbic system for anxiety (as well as other emotions).

(Zuckerman, M. 2005). Argued and steadied anxiety is related to the activity of the Hypothalamic-Pituitary-Adrenal-cortical( HPAC) system activated during stressful encounters, which leads to cortisol secretion from the adrenal cortex.

#### **2.2.4.3.3.The Amygdala: A Key Structure for Anxiety**

Amygdala as the “sensory gateway to the emotions.” Brain imaging studies using functional magnetic resonance imaging suggest that the amygdala “lights up” or becomes activated when such threatening stimuli as angry faces are presented. Found that exposure to pictures of a threatening face evoke amygdala response, even when the viewer does not report consciously seeing the face at all.

One of the key functions of the amygdala is to interrupt ongoing activity in order to enhance processing of threats and support quick responses to dangerous situations.

Intriguingly, genes that relate to amygdala function may also relate to individual differences in anxiety. (Hariri, AR & Holmes, A. 2006).

#### **2.2.4.3.4.Reinforcement Sensitivity Theory. ( RST )**

Another “systems "model of anxiety is the Reinforcement Sensitivity Theory (RST) developed by Gray, and subsequently modified by (Corr, PJ. 2009). It distinguishes three brain systems for motivation and emotion.

- ❖ The behavioral activation system regulates response to reward stimuli.
- ❖ The fight-flight-freeze system (FFFS) is activated by all aversive stimuli and regulates escape and avoidance behaviors.
- ❖ the Behavioral Inhibition System (BIS) of the brain.

On the same barrele Gray’s has a model of the behavioral inhibition system, showing inputs and outputs of the system. Adapted from( Gray, J. A & McNaughton, N. 2003).Which is

### **Inputs to system which includes**

- ❖ Signals of punishment.
- ❖ Signals of non-reward.
- ❖ Novel stimuli.
- ❖ Innate fear stimuli.

The Behavioral Inhibition System lead tone of the followings outputs system

- ❖ Behavioral inhibition
- ❖ Increased arousal
- ❖ Increased attention

( RST )Provides an explanation for individual differences in trait anxiety, which reflect the sensitivity of the (BIS) to the various inputs listed earlier. In this theory, the anxious person is not necessarily highly fearful but is someone prone to conflicts between competing goals, a definition that captures the uncertainty and indecisiveness that often accompany anxiety. (Corr, P.J. 2009).

### **2.2.4.4 COGNITIVE MODELS**

#### **2.2.4.4.1 Appraisal Theories**

The core idea of cognitive models of anxiety is that feelings are expressions of thinking (though not necessarily conscious thinking). A widely accepted view in the cognitive theory of emotion is that emotions reflect appraisals—evaluations of the personal significance of stimuli and events. A classic study was performed by Richard Lazarus.

Broadly, anxiety is generated by appraisals of events as personally threatening. Appraisal theorists go beyond this common sense point of view to specify in some details the information processing that supports cognitive appraisal anxiety emerges from a complex and dynamic sequence of processes that extract the personal significance of each stimulus. Thus, anxiety emerges from a complex and dynamic sequence of processes that extract the personal significance of each stimulus.

Current cognitive models go beyond identifying anxious emotion with appraisal processes and address the dynamics of cognition. External pressures require the person to find ways of coping with events that may change the nature of those pressures (reducing them if coping is effective). Anxiety may then describe a style of interaction

between the person and the external environment, characterized by a sense of one's being overwhelmed by events, and uncertainty over the best coping strategy.

Internal dynamics are characterized by self-regulation models that describe how goal-directed behavior is regulated by feedback signals . ( Scherer, K. 2009).

#### **2.2.4.4.2 State-Trait Interactional and Transactional Models of Anxiety**

Transactional model of stress and emotion is a landmark cognitive model, which continues to shape much contemporary research. Emotions are relational constructs that, so to speak, tell us how the person stands in relation to external demands, pressures, and opportunities. Thus, anxiety depends on both the external events themselves and how the individual appraises them and copes with them over time.

There are substantial individual differences in these cognitive processes they are

- ❖ Individuals differ in their appraisals.
- ❖ Differ in self-appraisals.
- ❖ Differ in their actual coping skills and resources. ( Lazarus, RS. 1999).

Several theorists have developed interactional models that represent these basic principles Spielberger's made the useful distinction between anxiety as a stable Personality trait (A-Trait) and anxiety as a transient emotional state (A-State).

Spielberger model emphasizes the interaction between personality traits and environmental stressors in determining anxiety states and underscores the crucial role of cognitive appraisals as mediating factors.

#### **Spielberger's interactional state-trait model of anxiety that differentiates between:-**

- ❖ The objective properties of ego-threatening situations that are potentially stressful.
- ❖ The subjective interpretation of a particular situation as more or less threatening for a particular person (threat).
- ❖ The emotional states that are evoked in stressful situations
- ❖ The coping reactions and responses to the aversive emotional state (defensive behaviors, palliative and instrumental forms), and adaptive outcomes.
- ❖ The individual's appraisals of potentially threatening stimuli.

Finally his model clarify the accommodation of the person's internal responses to feedback from emotional and somatic states, but the main focus is on the interaction between the person and the external situation.

#### **2.2.4.4.3. Self-Control (Regulation) Model of Anxiety**

Another leading cognitive model that provides further insights into the internal self-regulative processes that shape the person's understanding of the external threat and his or her attempts at coping.

It based on the assumption that intentional goal-directed behavior in humans displays the functional characteristics of a feedback control system.

Accordingly, people establish goals and standards for themselves, which they use as reference points in guiding and monitoring their behavior.

Present behaviors are continuously sensed and brought to mind and then compared against situational salient reference values and goals. Any observed discrepancies encountered between present behaviors or states and salient reference values or behavioral standards are handled by adjusting behavior in the direction of the latter.

Whenever people consistently move toward salient reference values they use to guide behaviors, they manifest the functions of a negative feedback loop, which is designed to bridge the gap between intended and actual qualities of behavior. The control system makes adjustments, if necessary, to reduce the discrepancy by shifting the sensed value in the direction of the standard. (Carver, CS & Scheier, MF. 1991).

Finally the model proposes that ego-threatening conditions, particularly social evaluative pressures, make everyone anxious. The crucial difference is in how different people respond to the arousal and the situation as a whole. Less anxious individuals retain confidence in being able to perform well despite the anxiety, whereas highly anxious persons are tormented by doubts over their performance. Furthermore, in highly ego threatening circumstances anxious persons tend to be focused primarily on avoiding the experience of anxiety, rather than on performing well.

#### 2.2..4 SUMMARY AND CONCLUSIONS

At present, no single theoretical perspective on anxiety can readily account for the complex and multifaceted nature of this construct, including: phenomenology, developmental antecedents, correlates and consequences, and therapeutic interventions. The models have reviewed suggest some key themes and components for future theorizing:

- ❖ Anxiety is both conscious and unconscious. The most obvious feature of anxious emotion is the familiar feeling state, often accompanied by awareness of bodily and thought disturbances. Manifestations of anxiety may be unconscious as Freud. The hidden side to anxiety is recognized in both biological and cognitive theories.
- ❖ Anxiety is both learned and innate. As Modern biological theories.
- ❖ Anxiety is both biological and cognitive .The evidence is persuasive for a central role for brain structures such as the amygdale embedded within wider functional systems for regulating responses to threat stimuli.

#### 2.2.5.Types of Anxiety Disorders:-

The fourth edition of Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) Anxiety can be categorize in to the following:-

##### **Panic Disorder**

Sudden episodes of acute apprehension or intense fear that occur “out of the blue” without any apparent cause.

##### **Agoraphobia**

Fear of open spaces the fear of having a panic attack in public.

##### **Social Phobia:**

Fear of embarrassment or humiliation public speaking is the most common social phobia.

##### **Simple-phobia**

strong fear and avoidance of one particular type of object or situation.

##### **Generalized Anxiety Disorder**

Chronic anxiety that persists for at least six months, but is not accompanied with panic attacks, phobias or obsessions.

### **Post-traumatic Stress Disorder**

Recurrent thoughts, flashbacks and nightmares of a traumatic event outside of the normal range of human experience.

### **Acute Stress Disorder**

After or while being exposed to a traumatic event a person can experience an absence of emotional responsiveness, reduction of awareness of the surroundings, among other symptoms. This disturbance lasts between two days and four weeks.

### **Obsessive Compulsive Disorder**

When behaviors' such as cleaning, tidying, checking or ordering interferes with person's life.

Another a type of anxiety that is due to general medical condition this type can be diagnosed from the history, physical examination or laboratory test the findings that the disturbance is directed physiological consequence of general medical condition and also the disturbance is not better account by another mental disorder or not occur exclusively during the course of delirium & also the disturbance leads to significance or impairment in social occupational functioning

## **2.2.6 Signs symptoms of anxiety disorder**

### **Psychological symptoms**

The (American Psychiatric Association, 2000 ) (DSM-IV). Excessive anxiety and worry about a number of events or activities (future oriented), occurring more days than not for at least 6 months Worry is difficult to control.

- \* Worry is associated with at least three of the following symptoms:
  - \*Restlessness or feeling keyed up or on edge
  - \*Easily fatigued
  - \*Difficulty concentrating
  - \*Irritability
  - \* Muscle tension
  - \* Sleep disturbance
  - \*Anxiety and worry cause significant distress and impairment in social, occupational, or other daily functioning .



### **Physical symptoms**

Diarrhea Dizziness, light-headedness ,Hyperhidrosis, Hyper reflexia,hypertension ,Palpitations, restlessness(e.g. Pacing) Syncope, Tachycardia tingling in the extremities, tremors, upset stomach ,Urinary frequency, hesitancy, urgency.

### **2.2.7.Treatment**

In general ,anxiety disorders are treated with medication, specific types of psychotherapy, or both. The most effective treatment of anxiety disorder is probably one that combines psychotherapeutic, pharmacotherapeutic, and supportive approaches. The treatment may take a significant amount of time for the involved clinician, whether the clinician is a psychiatrist, a family practitioner, or another specialist

#### **2.2.7.1.Psychotherapy**

According to ( Williams, WH.,2003) A number of approaches have been developed for the psychological management of anxiety cognitive behavioral therapy (CBT). psychoanalytic therapy and psycho-education. Psychological-based treatments are commonly used in the management of anxiety.

#### **2.2.7.2.Psychoanalysis**

Psychoanalysis is a form of therapy that focuses on building insight into one's life and unconscious to create meaningful change. The method of psychological therapy originated by Sigmund Freud in which free association, dream interpretation, and analysis of resistance and transference are used to explore repressed or unconscious impulses, anxieties, and internal conflicts, in order to free psychic energy for mature love and work. Careful attention is paid to early childhood experiences (especially those with a sexual dimension), the memory of which may have been repressed because of guilt or trauma; recalling and analyzing these experiences is thought to help free patients from the anxiety and neuroses caused by repression as well as from more serious illnesses. . (Hyman, SE.,& Rudorfer, MV.2000).

### **2.2.7.3.Cognitive behavior therapy (CBT).**

CBT is a pragmatic, action-oriented treatment approach that has become a widely used psychotherapy for major mental disorders

that addresses the interactions between how we think, feel and behave. It is usually time-limited (approximately-20 sessions), focuses on current problems and follows a structured style of intervention. The development and administration of CBT have been closely guided by research. Evidence now supports the effectiveness of CBT for many common mental disorders. For some disorders, carefully designed research has led international expert consensus panels to identify CBT as the current “treatment of choice”.. (Hodgson, J. etal .2005).

The theoretical structure and basic method for CBT were outlined by Aaron Beck. CBT for anxiety disorders aims to help a person develop a more adaptive response to a fear. Exposure therapy has been found to be effective in treating anxiety-related disorders'It works by helping a person confront a specific fear or memory while in a safe and supportive environment.( Hofmann, SG. 2008 ).

### **2.2.7.4.Pharmacotherapy**

Medication will not cure anxiety disorders, but it can keep them under control while the person receives psychotherapy. The Pharmacological agents for treating anxiety disorders are initially prescribed at the lowest dose and increased until the person feels effective relief of their symptoms.

The principal medications used for anxiety disorders are as the following

- ❖ Anxiolytic &Hypnotics agents
- ❖ Antidepressants
- ❖ Beta Blockers (Katzung,B.2009).

### **2.2.7.5.Ways to Make Treatment More Effective:-**

Regular aerobic exercise, improving sleep hygiene and reducing caffeine are often useful in treating anxiety. Many people with anxiety disorders benefit from joining a self-help or support group and sharing their problems and achievements with others stress management techniques and meditation can help people with anxiety disorders calm themselves and may enhance the effects of therapy. The family is very important in the recovery of a person with an anxiety disorder. Ideally, the family should be supportive but not help perpetuate their loved one’s symptoms. (Herring, P. 2010).

### **2.2.7.6. Summery**

No psychological treatment for anxiety with no pharmacological treatment .In addition, if trials were available, different psychological treatments for anxiety . we're be compared to determine which psychological treatment is the superior. Also to know which is the more effective the combinations between the pharmacological& psychological or the single treatment .

### **2. Infertility**

Infertility is a global health issue. It is a multidimensional problem with psychological, and social impact.

#### **2.3.1. Definition of infertility**

Infertility is classified as primary when the female partner has never conceived before as the most experts define it as not being able to get pregnant after at least one year of trying without the use of contraceptive.( Ombelet, W. et al .2008).

Infertility may be secondary when women have previous pregnancy irrespective to the finale outcome of pregnancy but unable to get pregnant for another time after one year of the previous pregnancy . (Nouriani, M.2006).

But the World Health Organization (WHO) definition based on 24 months of trying to get pregnant is recommended as the definition that is useful in clinical practice and research among different disciplines . It is noted from the above definitions that the period of marriage is very important on the definition. But researcher thinks that also the culture has a strong influence on the definition . Infertility can be defined according to Palestinian culture inability to get pregnancy after 6 month of the marriage , mostly in Islamic and Arab society main goal of marriage is child bearing and also the females' belief

that children is the strong link that well maintains the marriage infertility is classified into types primary and secondary the researcher is concerned with the female who does not have children after one year of marriage irrespective she get pregnant before or not.

#### **2.3.2. Causes of infertility**

Infertility in general can be caused by physical or emotional factors, male or female reproductive problems, or even environmental , psychological or modern lifestyle

issues (higher average age of people who get married, stress, smoking ,diet) or unknown causes( Kelly-Weeder ,S.2006).

Female infertility may be related to female as fallopian tubes problems uterus, disorders of menstruation, sexual disorders, age and ovarian failure and prolonged use of contraceptives.( Benoff, S., Jacob, A., &Hurley, I R. 2000 ). While the researchers (Egozcue, S &Blanco, J 2000). Contributed male infertility to oligospermia, as the nospermia, teratozoospermia and azoospermia, immunological problems may produce antibodies-induced damage to gametes that cause male infertility .Besides life style, environmental factors including smoking can affect gamete and embryo development, leading to sub infertility. (Sharpe,RM.2000).

Infertility may related to geographical factor "..... *It has also been observed on developed countries the most common risk factor of infertility is age, while in Africa is sexually transmitted diseases this may be referred to environmental factor*".(Ombelet, W.,etal. 2008).

Different attitudes regarding the causes of infertility in underdeveloped and developing countries, infertility may be linked to social beliefs such as punishment for sins of the pastor witchcraft. Actually infertility can be caused by , distinct dietary habits, which is causing childlessness whereas people in developed countries viewed infertility as caused by biological and other related factors. ( Bharadwaj ,A.,et al.2000)& (Boivin,J.,et al. 2007).

### **2.3.2.1 Summary**

Infertility may be due to male or female also may be referent to physical, psychological factor also environmental & also geographical the researcher think that infertility in Gaza stripe mostly related to environmental pollution that occurs after the last wars that has prevailed the area for 60 years. Also psychological factor because of the unstable political &social situation on our country(Palestine) .

### **2.3.3.Infertility Incidence rate**

According to recent studies by the World Health Organization, (WHO) approximately 8-10% of couples are facing some kind of infertility problem (Benagiano, G.,etal.2006).

This means that 50-80 million people Globally are facing the problem of getting an integrated family. In the USA, approximately 5 million people have infertility problems, while in Europe the incidence is estimated around 14%. (Boivin, J., et al. 2007). Noted that the incidence of infertility is associated with geographic differences. For example, in some west-African communities infertility rate is around 50%, while in some western European countries is 12%. Likewise (Ombelet, W., et al. 2008) pointed to the differences that observed both in developed countries, where rates range from 3.5% to 16.7%, as well as in less developed countries, where rates of infertility range from 6.9% to 9.3%.

It noted from the above that the geographical distributions of infertility that the lowest rate is in less developed countries, the researcher think this may be related to the cultures of this countries, where marriage on these countries has a primary goal which is family formulation and having children. Also the most risk factor of infertility which is the age of the women in Western countries, is almost nonexistent in Muslims' and Arab countries that the average age of marriage for girls is between 18 to 30 and this the peak level of fertility for the female, also may be that marriage is the only way for the saturation of the sexual desire among the Muslims' youth the is the rules of the Islam.

### **2.3.4. Infertility-Specific Theoretical Frameworks**

(Covington, Sharon N. & Hammer Burns, N. 2006). Clarify the following psychological theory of infertility.

#### **2.3.4.1. Grief Bereavement approaches**

This theoretical Frameworks depend on that infertility involve grief & loss whether it is a profound distinct loss at the onset of treatment or gradual accumulation of losses over time.

That the losses of infertility may involve the loss of individual and/or couple's health, physical and psychological well-being, life goals, status, prestige, self-confidence, and assumption of fertility, loss of privacy and control of one's body, and anticipatory grief at the possibility of being childless.

The level of grief responses is directly proportionate to the level of attachment (the desire to be parenthood, child, or baby).

The keening syndrome of infertility refers to the way in which many couples grieve the losses of infertility: Women weep and men watch. This phenomenon can result in

Husbands becoming the ‘forgotten mourners’ because the husband is less verbal and expressive with his grief or unable to express it in the same open manner as his wife. By contrast, Unruh and McGrath, objected to the application of traditional grief and loss theory to infertility because it failed to address the ongoing, chronic nature of infertility. They identified infertility as a chronic sorrow for the infertile, typically involving numerous losses over an extended period of time. In fact, infertility-specific grief may never be completely mourned, transcended, or fully integrated. According to the chronic infertility-specific grief model, even after parenthood has been achieved or childlessness accepted, infertility can, and often does, periodically reemerge only to be remounted from a different perspective or vantage point in the couple’s or individual’s life. As such, infertility may typically involve grief responses such as shock, disbelief, anger, blame, shame, and guilt, while over time, feelings of loss of control, diminished self-esteem, chronic bereavement, anxiety, and depression may persist.

#### **2.3.4.2 Individual Identity Theories**

According to this theoretical approach., infertility alters an individual’s sense of self by creating or exacerbating feelings of deficiency, hopelessness, and shame. the explanation of this theory is that infertility an experience that alters an individual identity and sense of a self, also point out that the high level of emotional distress exists because there is a discrepancy between the potential identity (biological mother) and the actual identity (infertile woman).

Female often feel inadequate and deficient for failing to fulfill personal and societal roles, while male often feel inferior, ashamed, and angry. A core concept of this theory is that individuals experiencing infertility must integrate and incorporate infertility into their individual identity, sense of self, or self-definition. In so doing, the individual is then 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.( Loftus,J.&, Namaste,P. 2011).

#### **2.3.4.3.Stress and Coping Theories**

Two concepts are central to any psychological stress theory appraisal, individuals ' evaluation of the significance of what is happening for their well-being, and coping ‘

individuals' efforts in thought and action to manage specific demands.( Lazarus, R S. 1993).

Specific patterns of primary and secondary appraisal lead to different kinds of stress. Three types are distinguished: harm, threat, and challenge Harm refers to the (psychological) damage or loss that has already happened. Threat is the anticipation of harm that may be imminent. Challenge results from demands that a person feels confident about mastering. These different kinds of psychological stress are embedded in specific types of emotional reactions, thus illustrating the close conjunction of the fields of stress and emotions.

Taymor and Bresnick Were the first to refer to infertility as a stressor and crisis involving interaction among physical conditions predisposing to infertility, medical interventions addressing infertility, reactions of others, and individual psychological characteristics. Stress and coping theory to infertility, noting that infertility is characterized by dimensions of what individuals find stressful: unpredictability, negativity, applied There is evidence that men and women experiencing infertility react differently and manage this crisis in different ways Many women perceive the inability to conceive to be one of the most upsetting life events and tend to show their emotional reactions more visibly than men others indicate that men and women find infertility equally distressing .

#### **2.3.4.4.Social Construction and Stigma Theories**

This theoretical framework is the foundation for understanding infertility as a cultural, religious, and existential experience. Stigma involves the failure to fulfill cultural norms and extends to the social identity of the whole person, polluting his or her other accomplishments. However, infertility could also be a transformational process in which an individual has mourned the loss of reproductive function and parenting roles and struggled to make restitution for the perceived stigma and powerlessness associated with non-fulfillment of a prescribed societal norms, exclusion from cherished societal rituals, and deprivation of familial ties of descent .

Infertility results in social stigmatization which places them at risk of serious social and emotional consequences. and sense of disqualification. (Garmaz Nejad, S. 2001).

### **2.3.5. Psychological & social impact of infertility**

The impact of infertility on the psychological wellbeing of couples involved has been the object of increasing attention in recent years. It cannot be denied that infertility is a deeply distressing experience for many couples. Infertility among women is associated with a large number of psychological problems. The women suffering from infertility underwent severe psychological distress, use various coping mechanisms to improve their overall quality of life. (Joshi, H & Singh, R. 2009)

#### **2.3.5.1 Social impact of infertility**

Individuals who are thought to be infertile are generally relegated to an inferior status and stigmatized. Childlessness has varied consequences through its effects on societies and on the lifestyle of individuals. Though in some cases the childless life style enhances life satisfaction for some individuals, yet it is diminishing for others for whom parenthood is a personal goal. (Van Balen, F. & Gerrits, T. 2001).

The researchers note this study is agreed with the Individual Identity Theory and also Social Construction and Stigma Theories. While the researchers (Phipps & Abbey et al, 2001). Added a less satisfaction in acceptance by in-laws than wives experiencing a diagnosed male infertility. One of the most difficult aspects that infertile women describe the difficulty in social settings, such as dealing with feelings of jealousy and when learning of other women's pregnancies or binging the presence with others who have infants. (Domar, AD. 1997).

#### **2.3.5.2. psychological impact of infertility**

A number of comparing studies have found that infertile women underwent high psychological distress than normal counterparts. The incidence of depression in infertile couples presenting for infertility treatment is significantly higher than in fertile controls, with prevalence estimates of major depression in the range of 15-54% (Gorgani, S. 2001). Anxiety has also been shown to be significantly higher in infertile couples when compared to the general population, with 8-28% of infertile couples reporting clinically significant anxiety. Infertile women were compared to women with cancer, hypertension, myocardial infarction, chronic pain, or HIV-positive status, their depression and anxiety scores were indistinguishable from other patients except those with chronic pain. (Mirzamani, SM. 2001).



Female with infertility experienced higher distress, low self-esteem, losing life control this what (Nilforooshan, p., et al.2005).

Another Different type of suffer that the infertile couples confront is changing in the individual's mental picture and feeling a change in the self-identity comparing with healthy persons (Younesi, S.J.2005). But the high levels of mental distress found among infertile patients are often interpreted as short-term reactions surrounding their wish for a child, coping with this unfulfilled wish, and medical aspects this according to( Hammerli,K.2010).

(Zahid, M.A. 2004). Clarify a form of psychopathology which is tension, anxiety, depression, self-blame, suicidal ideation.

In addition to emotional psychological and social reaction cultural and economical issues are also emerged so infertile women face double tension . (Dadfar, M.2001).

Anew forms of challenge that the women exposed to is carrying the psychological barden of infertility, even when the reproductive impairment lies with the husband (Peterson, BD., et al,2006). The female typically the identified patient in fertility centers regardless of which spouse carries the reproductive impairment, it is most often the women who undergo the bulk of the invasive procedures, are responsible for daily monitoring of their menstrual cycles, and experience disruption in their schedules to accommodate rigid treatment regimens & this clarify the Disappointment problem and hopelessness .( Sardari Sayar, A. 2005). ; (Saki, M.,2005);( Seif, D. 2001).

### **Summary**

The complicated process of infertility has emotional and affective dimensions for the individuals. The stressful condition of the infertile period, the type of treatments, 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 of physicians, continual references to infertility clinics, , the high cost of the infertility treatment, doing costly tests especially under the effect of sseiage and the Lowe socio economic status, the absence of governmental centers for infertility, wasting time, explaining personal life details to the physician, planning a definite sexual intercourse time table 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 , the pressures of family and society to have a baby as soon as they could and not be able to explain the problem to everybody, continual comparison with fertile couples, the possibility of husband marriage from another wife which may leads to disturbed marriage relations among couples in most of the times, maladjustments and possibility of separation and divorce. Not having a complete knowledge about the causes of infertility and having the feeling of being a victim, they lead to anxiety, depression. In our infertility centers when the infertile couples refer to clinical centers for obtaining required modern services, the therapy service only aims at the treatment of their physical problem and their psychological problems faces detached handling.

Therefore ignoring the psychological factors related to infertility and merely considering these problems as medical ones 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 behavioral sciences.

From the opinion of the researcher infertility should be considered as having an influential role in social and psychological factors influencing that may influence the treatment of infertility. In fact infertility creates a critical situation that threatens the emotional and psychological life of the individual.

The question that rises in this regard is as follows:

Do the emotional psychological problems lead to infertility? Or does the infertility lead to emotional psychological problems? In both cases, it is obvious that infertility is a crisis that leads to a psychological imbalance, especially when a possible and quick solution is not found for it

# Chapter three

## Literature Review

## **Chapter Three**

### **Literature Review**

In this chapter the researcher will review the literatures that concerned about the effect of psychological intervention either in improving mental health or increasing pregnancy rate .

The studies will be categorized according to the main aim

- Studies which aimed to know the effect of psychological intervention to improve pregnancy rate and reducing depression and anxiety among the infertile couples.

#### **3.1 previous studies**

**Study of ( Ramezanzadeh ,F 2012).**

**Effectiveness of Psychiatric Intervention to improved Pregnancy Rates in Infertile Couples.**

The main goal was to evaluate the effectiveness of psychological intervention on the pregnancy rate & reducing depression among the infertile couples .The sample was 638 infertile patients who were where divided in to two groups control & experimental groups .The intervention type was psychotherapy (counseling& cognitive behavioral therapy) distributed in to ( 6–8) sessions By using the flowing scales Beck Depression Inventory (BDI), the Stress Scale (Holmes-Rahe), and a socio demographic questionnaire.

**The main Result was:-**

Pregnancy occurred in (47.1%) couples in the treatment group and in only 5 (7.1%) couples in the control group. There was a significant difference in pregnancy rate between the treatment and control groups& lowers the depression rate .

**Study of( Ahmad A. & Noorbala.,et al. 2008). a cross-sectional study**

**Effects of a psychological intervention on reducing depression among infertile couples.**

The main goal was to determine factors affecting depression in infertile couples & the impact of a psychological intervention before or during infertility treatment, the sample was with 638 infertile couples assessed for depression & deviled equally into two groups control and intervention group . The intervention type was cognitive behavioral

therapy & psycho education . The researcher use the following scales Beck Depression Inventory scale (BDI) ,infertility stress scale & a socio-demographic questionnaire .

**The main Results:**

The psychological intervention was found useful in alleviating depression in infertile couples before they received infertility treatment .

**Study of( Chan, CHYet al.2006 ).**

**The Effectiveness of psychosocial group intervention for reducing anxiety in women undergoing vitro fertilization:**

The main goal was reducing anxiety in women undergoing in vitro fertilization (IVF). The sample was divided into intervention group which was 69 Females & control group which was 115 Female. The researcher use the scale of State-Trait Anxiety Inventory(STAI), & Taylor Manifest Anxiety Scale(TMAS) .

The intervention type was psycho educational group & counseling the duration was 4 weeks total 12 sessions.

The main result Sign less state anxiety after the intervention; no association with pregnancy rate was detected In random Control study.

- Studies which aimed to know the effect psychological intervention (counselin) to reduce anxiety and depression or to increase the pregnancy rate among the infertile couples.

**Study of (Emery, M., et al. , 2006).**

**Evaluating the acceptability and effects of routine pre- (in vitro fertilization )IVF counseling.**

The main goal was to evaluate the effect of counseling in reducing anxiety & Depression among infertile couples. The Sample was 50 male and 50 females and divided into intervention group & control group the intervention type was psychological counseling, total 15 sseion.

the researcher use the scale of State-Trait Anxiety Inventory( STAI) ( Beck Depression Inventory) ( BDI), & assessments of counseling

**The main result** was no sign. effect of counseling on pregnancy rate, anxiety and depression- scores Randomized controlled

**Study of (De Klerk ,C., et al . 2005).**

**Effectiveness of a psychosocial counseling intervention for first-time in vitro fertilization( IVF) couples**

The main goal was to know the effectiveness of a psychosocial counseling to reduce anxiety and depression among couples' undergoing IVF for the first-time . The total sample was 44, divided into 22 intervention group & 22 control group. the intervention type was psychological counseling, the duration (5 sessions)

The scale was Hospital Anxiety and Depression Scale( HADS) & Daily Record Keeping Chart (DRK) for mental health the intervention type was psychological counseling.

**The main result** :- No significant differences were found; counseling did not help the couples come over anxiety & Depression (Randomized controlled study).

**Study of( Zhen, XH., et al. 2005).**

**The effect of psychotherapy intervention for the insomnia status in patients with secondary infertility.**

The main goal was to reduce insomnia related to depression and anxiety among infertile couples, The sample was intervention group 258 and control group 258,

The intervention type psychological supportive therapy ,behavioral rational emotive therapy the duration was 6 weeks 14 sessions the scale was Anxiety scale, depression scale

**The main result** was symptoms of insomnia the Psychological intervention helped more for infertile person than control treatment in randomized control study.

**Study of (Shu-Hsin, L. 2003).**

**Effects of using a nursing crisis intervention program on psychosocial responses and coping strategies of infertile women during in vitro fertilization**

The main goal was to reduce anxiety & depression among infertile couples by using nursing crisis intervention , the sample was intervention group 64 Female , Control group 68 intervention The intervention type was nursing crisis intervention the duration was unclear ,The researcher used the scale of State-Trait Anxiety Inventory( STAI ) , Zung Self-reported Depression Scale( SDS) ; infertility questionnaire ,

**The main result** Positive effect of intervention in psychosocial responses.

**Study of (Strauss ,B.,etal.,2002).**

**The effect of Psychological Assessment Counseling, and Psychotherapy among infertile women**

The main goal was to know the effect of counseling to increase pregnancy rate & to reduce the high desire of parenting, the sample was as the following intervention group 31 and the control group 24, The intervention type was infertility counseling, psychotherapy .the duration was 9 weeks .

the scale was Symptom Checklist-90, (SCL-90-R) Partners charts fragebogen (PFB;) and assessment value of child wish .

**The result was** Intensity of child wish decreased and pregnancy rate was higher after intervention.

**Studies which to evaluate the effect of communication and stress management among infertile couples.**

**Study of (Schmidt,L etal, 2005).**

**Evaluation of a communication and stress management training program for infertile couples.**

The main goal was to evaluate the effect of communication and stress management among infertile couples, The sample was as the following intervention group 74 &control group 250, the measure was communication with partner and with other people& fertility problem stress test . The intervention type mixed communication and stress management during group therapy group/couple, the duration 5 weeks , total 18 hours .

The main result intervention had a positive effect on communication, infertility related stress and seeking of information and support in controlled study

**Study of( Tarabusi, M.,etal. 2004).**

**psychological group support attenuates distress of waiting in couples scheduled for assisted reproduction.**

The main goal was to know the effect of using cognitive behavioral therapy (CBT) approach to reduce stress among infertile female waiting for invetrofertilization (IVF). the sample was as the following intervention group 50 and control group 48 the intervention type was cognitive behavioral therapy (CBT). the duration was 12 weeks.

The researcher use symptom rating test. ( SRT) ,Westbrook Coping Scale

**the main result** CBT avoided waiting stress and stimulated discussion and awareness inside couples

**Study of (McNaughton-Cassill ,ME. 2002).**

**Efficacy of brief couples support groups developed to manage the stress of in vitro fertilization treatment**

The main goal was to evaluate the effect of brief couples support on reducing stress among infertile couples, The sample was as the following intervention group 41 divided into 25 Female and 16 Male , control group 37 divided into 19 Female and 18 Male, The intervention type was couple stress management group ,the duration 3 weeks 2 session /week.

The scale was ( BAI;) Beck anxiety Inventory;( BDI) Beck Depression Inventory & life orientation test.

**The main result** Woman reported less anxiety and men greater optimism on completion of the group sessions. Men in the intervention group had greater numbers of irrational beliefs compared with men in Control group.

**Study of( Domar, AD et al. 2000).**

**The impact of group psychological interventions on distress in infertile women**

The main goal was to evaluate the impact of group psychological interventions on reducing stress among infertile women. The sample was divided in to two group intervention group 47 females & control group 48 . The intervention type was cognitive behavioral and support, the duration 10 weeks

The researcher use the scale State-Trait Anxiety Inventory( STAI) , Beck Depression Inventory( BDI),Profile Of Mood States.( POMS) &, The Rosenberg Self-Esteem Scale( RSES)

**The main result** Positive effect of intervention on psychological outcomes and pregnancy rate.

- Studies which to know the effect of hypnosis on the outcome of embryo transfer.

**Study of( Levitas, E. etal. 2006).**

**Impact of hypnosis during embryo transfer on the outcome of in vitro fertilization-embryo transfer.**

The main goal was to evaluate the effect of using hypnosis on the outcome of inventor- fertilization(IVF) , embryo transfer cycle . The sample was as the following intervention group 89 and control group 96. The intervention type was using hypnosis



during embryo transfer ,the scales was infertility-specific stress, pregnancy test measures implantation rate .the duration was unclear

**The main result** improved the outcome of inventor- fertilization ,embryo transfer cycle outcome in terms of increased implantation and pregnancy rate .

**Study of( Rezabek, K et al. 2003).**

**the efficiency of using Hypnosis during embryo transfer**

The main goal was to know the effect of using hypnosis & relaxation on the female undergoing embryo transfer, The sample was as the following intervention group 21 control group 31. The intervention type was hypnosis, relaxation techniques during embryo transfer. The duration was 2 hours The researcher use infertility-specific stress implantation rate test.

**the main result** Hypnosis does not change the results of embryo transfer but subjective perception of guided relaxation was positive

- Studies which aimed to compare between two types of interventions either comparative between medication and Cognitive behavioral therapy as the study of (Faramarzia,M., etal .2008).

**Treatment of depression and anxiety in infertile women: Cognitive behavioral therapy versus fluoxetine.( Comparative study).**

The main goal of the study was to compare the effectiveness of cognitive behavioral therapy with fluoxetine in the resolution or decreasing depression and anxiety in infertile women.

The sample was 89 mild to moderate anxiety & depressed infertile women were recruited into three groups; group whom receive cognitive behavior therapy (CBT) ; group whom receive antidepressant therapy, and a control group. The intervention type was relaxation training, cognitive Behavioral Therapy ( restructuring, and eliminating of negative automatic thoughts and dysfunctional attitudes to depression)distributed in to 10 sessions. The researcher use Beck Depression Inventory and Cattell Anxiety Inventory scales .

**The main result** was Cognitive behavioral( CBT) was not only a reliable alternative to pharmacotherapy but also was superior to fluoxetine in the resolution or reducing of depression and anxiety of infertile women. Fluoxetine was superior to no therapy in the treatment of depression but not anxiety a randomized controlled study.

Other study which aimed to compare between the effect of Cognitive-behavioral treatment either on the physical wellbeing and psychological wellbeing.

**Study of( Facchinetti,F. 2004).**

**The effect of cognitive-behavioral therapy to decreases cardiovascular and neuroendocrine reaction to stress in women waiting for assisted reproduction.**

The main goal to compare between the effect cognitive Behavioral therapy ( CBT) On the physical wellbeing and stress among the infertile couples, the sample was as the following Intervention group 26 &Control Group 19 couples . The intervention type was cognitive Behavioral therapy ( CBT ),the duration was 4 month. The measure was infertility specific stress test , systolic blood pressure, heart rate, plasma cortisol,stroop colour-word test.

**The main result** was cognitive Behavioral therapy( CBT) useful for decreasing the level of distress among infertile couples'&stress

Other study aimed to compare between two types of psychological intervention as the study of ( Wischmann ,T., et al., , 2002) .

**The effect of Couple counseling and therapy for the unfulfilled desire for a child: the two-step approach of the “Heidelberg Infertility Consultation.**

The main goal was to compare between counseling and couple therapy on the psychological outcome among the infertile couples . The sample was as the following Intervention group 133divided into 55 receive counseling &55 receive couple therapy and the control 23 couple The intervention type was Mixed, counseling and couple-therapy. The duration was 10 weeks 2 sessions per week for one hour the scale ( SCL-90-R,) Symptom Checklist.

**The result** Couple-therapy showed stronger effects than counseling compared with control group.

### **3.2.Analytical view of the studies**

The researcher will analyze the studies according to the following criteria

### 3.2.1. According to the major goal

In generally there were two major goals of psychological interventions of the previous studies which are to improve mental health and increase pregnancy rate among infertile couples.

But two of the previous studies their major goal was to know the effect of hypnosis on the outcome of embryo transfer (**Levitas, E et al. 2006**); (**Rezabek, K et al. 2003**).

But three of the previously published reviews sought to compare between two types of intervention either comparative between fluoxetine and Cognitive behavioral therapy as the study of (Faramarzia, M., et al. 2008). other study search the effect of Cognitive-behavioral treatment either on the physical wellbeing and psychological wellbeing (**Facchinetti, F. 2004**). Other study its major goal was to compare between two types of psychological intervention as the study of (**Wischmann, T., et al. 2001, 2002**).

### 3.2.2. The sample of the studies

The total number of the study samples vary significantly that were range from 23-805. About the sample distribution most of the was divided into two groups control group and intervention group with the exception. (Faramazi, M et al, (2007); (Wischman, T et al, 2001-2002) As they were a comparative studies the sample was distributed in to three groups, on the other hand the sample study of (McNaughton-Cassill, ME. 2002). Was divided in to four groups male & female in the intervention group the same in the control group.

Also the samples were relatively equally divided (control & study group), while the some samples were significantly varied (Chan, et al 2006), (Schmidt, et al, 2005); (Facchinetti, F al. 2004); (Wischmann, T et al. 2001, 2002).

### Design of the studies

The majority design of the study were experimental randomized controlled studies that employed a control group design. These studies were used to compare post-intervention efficacy of the psychological intervention except the study (Ahmad, A et al. 2008). which was cross-sectional study.

A psychological intervention was defined by the majority of the study as a face-to-face intervention: designed to improve psychological functioning; based on a psychological theory and incorporating psychological strategies through interaction. Psychological interventions was provided in a variety of settings individual, couple or group, inpatient

or outpatients The control group participants did not receive a psychological intervention they were either on waiting lists or received routine care .

### **3.2.4.The intervention strategies that employed**

1-Counseling (Wischmann,T.et al.,2002); (McNaughton-Cassill,ME.,etal.2002) ; (Faramarzi,F et al2007); (RamezanzadehF,etal 2011); (Strauss,B., et al., 2002); (Emery,M., et al.,2003, 2006);( De Klerk,C., et al., 2005);( Zhen,XH., et al., 2005),

2- cognitive behavioural therapies ( Ahmad ,A.,etal.(2008); ( Faramarzi,M.,et al2007); (Ramezanzadeh,F.,etal2011); (Domar,AD.,et al., 2000); (Facchinetti et al., 2004; (Tarabusi,M et al., 2004).

3-Education(Ahmad ,A.,etal.2008);(Shu-Hsin,L. 2003); (Chan., et al. 2006),

4 Mind/body orientated relaxation(Rezabek,K., et al., 2003);( Levitas,E., et al.2006),

5-Mixed interventions (Schmidt et al., 2005).

It is noticeable that from the intervention types cognitive behavioral therapy has the superior effect either on the pregnancy rate or on the improvement of the mental health &also the commonly used by the researchers at the same time counseling intervention was the least effective Only three studies denied the effectiveness of psychological intervention.( Emery, M., et al. 2003, 2006). (De Klerk ,C., et al, 2005).

### **3.2.5.The duration of the studies**

The total duration of the intervention period was varied from four month( Facchinetti,F. 2004). to 1 session that was the study of (Rezabek,K et al. 2003). Using hypnosis during the embryo transfer .

### **3.2.6.The time point of assessment following the intervention**

The time point of assessment following the intervention varied ,most of the studies measured outcomes between 4 weeks to 6 months after the psychological intervention The findings of the present study provide some evidence in support of integrating psychological interventions as an early treatment strategy for infertile patients.

Psychological interventions appear to increase infertile women's chances of becoming pregnant. On the basis of the results, psychological interventions are beneficial for infertile patients, but more randomized controlled trials are needed.

Most of previous studies agreed with the study of the researcher in terms of the overall general objective which was to improve mental health as reducing anxiety is a part of improving mental health with the exception of ( Faramarzia,M., etal 2008).which was a comparative study between pharmacological treatment and psychological treatment & of (Facchinetti,F. 2004).which it main objective was to know the effect psychological intervention on the physical wellbeing .

The researcher study differ with the previous study as the samples were divided into two groups control and study group but the researcher use pre and post test.

The intervention type in the following studies were agreed with the researcher study (Ahmad ,A.,etal.2008); (Faramarzi,F.,et al 2007); (Ramezanzadeh,Fetal2011); (Domar,AD., et al., 2000); (Facchinetti,F et al., 2004); (Tarabusi,M., et al., 2004),as rational emotive is a part of cognitive behavioral therapy

Only three studies denied the effectiveness of psychological intervention.( Emery, M., et al. 2003, 2006). (De Klerk ,C., et al, 2005).Which argued with the researcher study result .

The following study approximately agreed with the researcher study in the duration of the intervention( McNaughton-Cassill ,ME. 2002); ( Zhen, XH., et al. 2005); (CHY,C. et al 2006 ).

# **Chapter Four**

## **Methodology and Procedures of study**

## **Methodology and Procedures of study**

### **4.1.introduction**

In this chapter, the researcher presents the procedures and steps that were used in the study, also explains and clarifies methodology of the study, population of the study, selecting criteria of the sample of the study, representing the steps of the experimental study that involves the pre and post followed by the post post test, representing tools and statistical methods that are used in the data analysis in order to get the results and the findings.

### **4.2.Method of the study**

The researchers used the experimental approach that is used according to the nature of study, and it is related to performing experiments that is known as procedures prepared and done by the researchers, moreover the procedures are related with the surrounding circumstances of a recognized phenomenon, which helps to end up with some results from the relation between the variables that affect the phenomenon

The experimental approach is defined to be the criteria that depends on Dimension and applied experiments, it is used to disaggregate between two methods in order to choose one of them to be directly applied or to be applied after modifications according to what suits the results needs and goals ( A bou Alama,2001)

It worth to mention that the researcher had followed the experimental procedure to achieve the goals of the study, which was applied on an experimental group (intervention) using pre and post tests, the researcher designed and formed a suggested guidance program to reduce the anxiety among infertile women.

### **4.3.Setting of the study**

The study was conducted in (Albasma) fertility treatment center which is the main and oldest center of its kind in Gaza city for infertility treatments.

#### **4.4. Eligibility of the study**

The eligibility of the study consists of inclusion and exclusion criteria.

##### **4.4.1. Inclusion Criteria**

The researcher included in this study all married women suffering from primary infertility after one year of marriage irrespective who is the cause of infertility either male or female factor, their age between (20-40) , living in Gaza city, following up their infertility treatments in (Albasma) infertility treatment center in Gaza city .

##### **4.4.2. Exclusion criteria:**

The researcher excluded in this study women suffering from secondary infertility, not living in Gaza city , not following up their infertility treatments in (Albasma) infertility treatment center in Gaza ,her age less than( 20) above ( 40 )

#### **4.5. Population of the Study:**

The researcher could not cover the number the entire population in all infertility centers in Gaza city as the researcher could not compute all of the population because of reasons she could do nothing with and the absence of an official side that can be depended on in terms of a real number of the population, so the study was limited to cover the population related to (Albasma) fertility treatment center, the women that are following up their treatments there was (400) in the year of the study performance .

which is the main and oldest center of its kind in Gaza for infertility treatments, the selection was meant to according to what the researcher found of supporting with the research issue, corporation and collaboration with providing all the vital elements needed until accomplishing the study, especially that its special needs as an experimental study that have to be done within a special circumstances to be applied within.



#### **4.5.1.The Sample of the Study:**

The study sample (systemic randomized) was chosen from the specified population to be totally (12) of the married women suffering from primary infertility noticed the ones who are 20 to 40 years old, that were following up their infertility treatments in (Albasma) fertility center ,lives in Gaza city ,agreed to participate and attend the program session , complain of anxiety related to infertility, then from remaining the researcher selected the infertile women with the high score of anxiety

#### **4.5.2.The guided Sample of the Study**

Since it going to be difficult to apply the suggested program of infertility anxiety reduction on all the women that were suffering from infertility anxiety because the difficulty of covering all suffering women and being these women busy in their general life's as the women nature.

The researcher had choose a group of women according to the inclusion & exclusion criteria that were suffering from moderate rates of infertility anxiety. They were eighteen in the beginning of the programme application there was drop out of six participants the last number of the sample was twelve participant to be applying the guidance program on them to reduce their infertility anxiety,

Moreover, the researcher performed the treatment and guidance sessions with the selected women according to these who have moderate degrees of infertility anxiety, after application of the pre-test, then the measure was applied another time as post-test in order to compare between the pre-test (before starting the treatment/ guidance program) and after one month from the application of the programme the post post-test marks, to find the level of keeping the change in their infertility anxiety degrees for the group.( purposive causative sample).

#### **4.5.3.Basic information of the study sample:**

In order to figure out the features of the sample, frequencies and percentages were calculated for each of the demographic variable, related results are shown as follows:

**Table (4.1): Frequency and Percent of the Personal data (n=12)**

Variable	category	Frequency	Percent %
age	20-26	4	33.3
	27-34	6	50
	35-40	2	16.7
Number of marriage years	2-8	8	66.7
	9-14	4	33.3
Order of the wife	first	11	91.7
	second	1	8.3
	No	12	100.0
The relativity of the husband	first degree relative	3	25.0
	second degree	7	58.3
	No relative	2	16.7
Household type	With the family	6	50.0
	Independent house	6	50.0
The lateness of child bearing is related to	The wife	6	50.0
	the husband	4	33.3
	No one	2	16.7
The frequency of invent or fertilization (IVF)	2-4	10	83.3
	5-7	2	16.7
The level of education For husband	Preparatory	1	8.3
	Secondary	3	25.0
	Diploma	6	50.0
	Bachelor	1	8.3
	Master	1	8.3
The level of education For wife	Preparatory	3	25.0
	Secondary	3	25.0
	Diploma	2	16.7
	Bachelor	2	16.7
	Master	2	16.7
Income Level of financial (NIS)	500-1000	5	41.7
	1001-1500	5	41.7
	1501-2000	2	16.7
	More than 2000	0	0.0
Period of treatment	2-8	7	58.3
	More than 8	5	41.7

**Ages :** ages between 20-26 was 33.3%,and between 27-34 was 50% and between 35-40 was 16.7.

**Number of marriage years:** 66.7% of the sample were married from 2 to 8 years, while 33.3% were married for 9 to 14 years.

**Order of the wife:** 91.7% of the sample were the first wives, while 8.3% were the second wives.

**Do you have children:** all women of the sample were having no children.

**The relativity of the husband:** 25.0% of the sample were first degree relative to their husbands, 58.3% were second degree relative to their husbands, while 16.7% were not relatives to their husbands.

**Household type:** 50% of the sample live with their families, and 50% live in an independent house:

**The lateness of child bearing is related to:** 50% of the sample were the direct reason of the lateness of having a child, while 33% having the lateness of having a child due to their husbands.

**The frequency of invent or fertilization (IVF):** 83% of the sample have done 2 to 4 times of invents or fertilization, while 17% of the sample have done 5 to 7 times of invents or fertilization.

**The level of education For husband:** 50% of the total sample are married to husbands that have diplomas, while 25% are married to husbands that have secondary level.

**The level of education For wife:** 25% of the total sample are have preparatory, 25% of the total sample are have secondary level.

**Month Income (NIS):** 41% have monthly income about 500 to 1000 NIS, while 41% have monthly income about 1001 to 1500 NIS, 16% have monthly income about 1501 to 2000 NIS

**Period of treatment:** 58% were having treatment from 2 to 8 months , while 41% were having treatment more than 8 months.

#### **4.6. Study Instruments: (Data Collection Tool):**

- 1- The researcher designed and used a measure to identify the level infertility anxiety taking into account the main factors and to give proper weight to each of these factors
- 2- The researcher performed a guidance program to reduce the degrees infertility anxiety that the women were facing.

##### **4.6.1 the measure of the study:**

###### **4.6.1.1.Primary image of the measure:**

The researcher justifies designing a measure for this study according to the nature , specialty ,objectives of the study and the privacy or the special requirements of the Palestinian culture and environment.

The measure was developed after extensive review of the available Arabian and foreign literatures on related topics of problems and psychological issues for infertile women including infertility anxiety, from the most important previous studies: Van Balen, F.& Gerrits, T. (2001), Younesi, S.J.,(2005), Zahid, M.A. (2004), Joshi,H.,& Singh,R. (2009), The American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders,(2000 ). The measure was adopted by many professionals and psychologists, to ensure the professionalism, accuracy, and seriousness of the data collection process. The researcher also depended when designing the questionnaire on her experience and career a nurses in the community mental health center . One more important step of designing the measure was making interviews with a random sample of infertile women that were following up with their infertility treatments in (Albasma) infertility center, in order to find some of pressures they were facing which have the most effect in structuring the statements/ questions of the psychological pressures measure. Some of the obtained questions were about:

What are the effects of being infertile on your psychological health?

What are the effects of being infertile on your social status?

And the researcher was reporting these responses.

Finally, depending on what was mentioned before, the researcher was able to structure and design the statements that were related to the psychological and social effects, the statements that were related to physical symptoms were inspired from the American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders,(2000)

#### **4.6.1.2.The final Measure:**

The final image of the measure came after it was represented by the researcher on many specialists in psychology, Psychology Counseling and Mental Health, also the Dimension of philosophy, nursing, and statistics. The reliability and validity of the measure were extracted after it was introduced in the primary way. The researcher responded for their views and advices. She had conducted the necessary modifying deleting, in the light of their proposals after their notes were registered so the measure had been prepared and it came in the standard semi-final form.

#### 4.6.1.3. Description of the measure:

After studying lots of measures and scales related to anxiety in general, and infertility anxiety in special, the researcher had determined the effective aspects of infertility anxiety, so she designed a special measure to identify the symptoms that tend to infertility anxiety.

#### **The first dimension: The psychological and physical dimension:**

This dimension is subdivided into two parts:

**The first part:** includes 24 statements /questions related to psychological suffering resulted from being infertile including anxiety, being confused, lack of focusing, fear from the future and waiting for menstrual cycle nervously addition to monitor the actions of the husband that might affecting the sexual and general life.

**The second part:** includes 21 statements /questions that pertain physical influence of anxiety which arises as phsiochological response to anxiety and tension that resulted when facing stress, especially when the appointment of menstruation is close for link between menstruation and pregnancy, so the infertile women began to think if there is pregnancy or not also when the appointment to visit the doctor become close and the women keep thinking about the visit and the possibility of efficiency of treatment and ending up with pregnancy or not.

**The second dimension: The social effect:** includes 17 statements /questions related to negative social effects resulted from being infertile.(stigma ,jealous, continuous comparative with fertile one ,pressure of the family

**Table (4.2): Shows the dimensions of total measure**

No.	Dimension	No. of statements
1.	Psychological side	24
2.	Physical side	21
3.	Social side	17
4.	Total measure	62

#### 4.6.1.4. Scaling the Measurement

In order to be able to compute the scores of the dimensions, the level of measurement must be understood. For each type of measurement, there is/are an appropriate method/s that can be applied and not others. In this research, ordinal scales were used. Ordinal scale is about ranking or a rating data that normally uses integers in ascending or descending order. The numbers assigned to the important (1,2,3,4,5) do not indicate that the interval between scales are equal, nor do they indicate absolute quantities. They are merely numerical labels. The researchers had used a to measure the response to the questionnaire's items as in the following table:

Item	Always	Often	Some times	Rarely	Never
Scale	5	4	3	2	1

#### **4.6.1.5. Reliability and Validity of the Measure:**

##### **Validity of the Measure**

The Validity of the measure was tested as shown as follows:

##### **Content Validity**

Content validity test was conducted by the consultation of group of experts (9) From (5) a member in the College of Education at the Islamic University and (2) a member in the College of nursing in Islamic university , (1) psychologist working in the psychiatric hospital to resolve disputes based specialists in psychology and statistics, they were asked to evaluate and identify whether the questions agreed with the scope of the items and the extent to which these items reflect the concepts of the research problem. Moreover, to evaluate that the instrument used is valid statistically. The researcher had responded to their opinions and has performed the needed editing or deleting in the light of their advices after that, the primary statements have been prepared, and the measure came out the test in its semi-final.

##### **4.6.1.5.1. Statistical Validity of the Measure**

##### **Internal Consistency**

The internal consistency is the second statistical test that used to test the validity of the test. The internal consistency indicates the correlation of the total of each item/ statement with the total degree of the method. It also indicates the correlation of the total of each method with the total of the measure (Al Agha, 1997).

The researcher had applied the measure on a pilot sample contains (30) women, then she figured out the internal consistency.

Structure validity: is a statistical test that used to test the validity of the questionnaire structure by testing the validity of each Dimension and the validity of the whole questionnaire. It measures the correlation coefficient between one filed and all the Dimensions of the questionnaire that have the same level of liker scale.

**Table (4.3): Correlation coefficient of each Dimension and the whole measure**

No.	Dimension	Spearman Correlation Coefficient	P-Value (Sig.)
1-	Psychological side	0.813	0.000**
2-	Physical side	0.807	0.000**
3-	Social side	0.840	0.000**

\* Correlation is significant at the 0.05 level      \*\* Correlation is significant at the 0.01 level

Table (4.3) clarifies the correlation coefficient for each filed and the whole questionnaire. The p-values (Sig.) are less than 0.05, so the correlation coefficients of all the Dimensions are significant at  $\alpha = 0.05$ , so it can be said that the Dimensions are valid to be measured what it was set for to achieve the main aim of the study.

As the measure has three dimensions, the researcher calculated the correlation coefficients between the degree of each statement and the total degree of the related dimension, as illustrated through the tables in the following:

**Table (4.4): Correlation coefficient for each paragraph of the “Psychological dimension ” and the total of the Dimension.**

No.	Paragraph	Spearman Correlation Coefficient	P-Value (Sig.)
1.	I don't feel calm	0.380	0.001*
2.	Don't feel security I	0.404	0.000*
3.	I feel that life is not interesting	0.615	0.000*
4.	I feel angry for trivial reason	0.701	0.000*
5.	I regret years passing without child bearing	0.652	0.000*
6.	I heat receiving comments' like be calm	0.412	0.000*
7.	I feel that a disaster well happen	0.564	0.000*
8.	I feel tranquility in my marriage life	0.413	0.000*
9.	I feel that infertility is punishment from Allah	0.263	0.015*
10.	I feel that infertility is a test for my faith in Allah	0.634	0.000*
11.	I feel that my affaires are difficult	0.618	0.000*
12.	I feel hesitate at making decision	0.576	0.000*

No.	Paragraph	Spearman Correlation Coefficient	P-Value (Sig.)
13.	Child bearing is the first source of my happiness	0.263	0.015*
14.	I feel that I lose control of my body because I examined by many doctors	0.504	0.000*
15.	I feel lack of concentration	0.564	0.000*
16.	I wait the time of menses with fear	0.445	0.000*
17.	I watch my husband behavior	0.617	0.000*
18.	I m worried about the future	0.692	0.000*
19.	I feel that my sexual life with my husband is useless	0.598	0.000*
20.	Thinking of child bearing affected my daily life	0.634	0.000*
21.	I have started to neglect my house work	0.463	0.000*
22.	I feel that my achievement and my motivation toward work are slowing down	0.613	0.000*

\* Correlation is significant at the 0.05 level

Table (4.4) clarifies the correlation coefficient for each paragraph of the “Psychological dimension ” and the total of the Dimension. The p-values (Sig.) are less than 0.05, so the correlation coefficients of this Dimension are significant at  $\alpha = 0.05$ , so it can be said that the paragraphs of this Dimension are consistent and valid to be measure what it was set for.

The following paragraphs were deleted from the psychological dimension

- I feel that my affaires are going easily
- I feel tranquility because I'm not the cause of infertility

**Table (4.5 ):Clarifies the correlation coefficient for each paragraph of the "Physical symptoms " and the total of the Dimension**

No.	Paragraph	Spearman Correlation Coefficient	P-Value (Sig.)
1.	I can't sleep normally	0.370	0.001*
2.	Sleep in interval I	0.375	0.001*
3.	I feel nauseated	0.613	0.000*
4.	I feel colic	0.524	0.000*
5.	I feel sudden diarrhea	0.500	0.000*
6.	I feel that I want to vomit	0.459	0.000*
7.	I feel stomachache	0.448	0.000*
8.	I have frequency of urination	0.477	0.000*
9.	I feel that my bladder Is not absolutely empty	0.489	0.000*
10.	I feel that I want to go back to the bath room after urination	0.538	0.000*



No.	Paragraph	Spearman Correlation Coefficient	P-Value (Sig.)
11.	I feel heart beating	0.633	0.000*
12.	I feel tremors	0.737	0.000*
13.	I feel tingling in my extremities	0.732	0.000*
14.	I feel headache	0.776	0.000*
15.	I feel dizziness	0.714	0.000*
16.	I feel confusion	0.673	0.000*
17.	I feel exhausted	0.651	0.000*
18.	I feel sweating	0.602	0.000*
19.	I feel difficulty of breathing	0.632	0.000*
20.	I feel loss of appetite	0.682	0.000*

\* Correlation is significant at the 0.05 level

Table (4.5) clarifies the correlation coefficient for each paragraph of the **"Physical symptoms "** and the total of the Dimension. The p-values (Sig.) are less than 0.05, so the correlation coefficients of this Dimension are significant at  $\alpha = 0.05$ , so it can be said that the paragraphs of this Dimension are consistent and valid to be measure what it was set for.

The following paragraph was deleted

- I get up in the early morning

**Table (4.6): Correlation coefficient of each paragraph of "Social dimension " and the total of this Dimension**

No.	Paragraph	Spearman Correlation Coefficient	P-Value (Sig.)
1.	Pity looks of others annoys me	0.489	0.000*
2.	My social relationship has become limited	0.463	0.000*
3.	I refuse to accompany my husband in family occasion	0.514	0.000*
4.	I avoid the social sitting with pregnant women	0.829	0.000*
5.	I feel jealous when I informed that one of my relative is pregnant	0.824	0.000*
6.	I heat to answer the questions related to child bearing	0.695	0.000*
7.	I feel heart broken when I visit kids' toys shop	0.677	0.000*
8.	I feel heart broken when I visit kids' clothes shop	0.691	0.000*
9.	I feel jealous when I see my husband holding chilled to his relatives	0.702	0.000*
10.	I feel annoyed when I have to congratulate other ladies for giving birth	0.748	0.000*
11.	I Don't congratulate my relatives in their children	0.246	0.020*

No.	Paragraph	Spearman Correlation Coefficient	P-Value (Sig.)
	birthday barites		
12.	Regular visit to receive treatment disturb my daily life	0.334	0.003*
13.	I feel stress when I hear that one of my relatives have got bear	0.737	0.000*
14.	I feel low self while sitting with pregnant women's	0.832	0.000*
15.	I don't like to be in family sitting in order not to hear "Allah	0.516	0.000*
16.	My female relatives get pregnant this lead me to feel jealouse	0.745	0.000*

\* Correlation is significant at the 0.05 level

Table (4.6) clarifies the correlation coefficient for each paragraph of the "Social dimension " and the total of the Dimension. The p-values (Sig.) are less than 0.05, so the correlation coefficients of this Dimension are significant at  $\alpha = 0.05$ , so it can be said that the paragraphs of this Dimension are consistent and valid to be measure what it was set for.

#### 4.6.1.5.2. Reliability of the Scale:

The measure is said to be reliable when it gives the same results if it is reapplied in the same conditions on the same sample. (Richard, J.2004).

The reliability of an instrument is the degree of consistency which measures the attribute; it is supposed to be measuring. The less variation an instrument produces in repeated measurements of an attribute, the higher its reliability. Reliability can be equated with the stability, consistency, or dependability of a measuring tool. The test is repeated to the same sample of people on two occasions and then compares the scores obtained by computing a reliability coefficient.

**The reliability is going to be measured by both ways: Alpha Cronbach's and the Spilt- half techniques.**

#### **Cronbach's alpha**

To calculate the reliability of the test, the researcher used the following two methods:

Cronbach's Coefficient Alpha: 
$$\alpha = \frac{K}{K-1} \left( 1 - \frac{\sum_{i=1}^K \sigma_{Y_i}^2}{\sigma_X^2} \right)$$

The researcher calculated the reliability of the test by using Alpha Cronbach's formula, (K) is the number of items of the test, ( $\sigma^2_{\chi_i}$ ) is the variance of the total test marks where ( $\sigma^2_{Y_i}$ ) is the component of the test and (i) is sample questions of the test( Cronbach, Lee J & Richard J. 2004). The normal range of Cronbach's coefficient alpha value between (0.0 and 1.0), and the higher values reflects a higher degree of internal consistency. The value of Cronbach's Alpha equals 0.947. This value is considered high which indicates an excellent reliability of the entire test

**Table(4.7): Cronbach's Alpha for all dimension**

No	Field	Cronbach's Alpha
1.	Psychological	0.857
2.	Physical	0.889
3.	Social	0.902
4.	<b>All dimensions</b>	0.857

### **Split Half Method**

The researcher calculated the reliability of the measure by using split half method as another way to test the reliability, this method works by dividing the whole test items into two parts, then the correlation coefficients between the sum of items for the first part and the sum of items for the second part were calculated.

The correlation coefficient between the odd and even questions equal 0.903. The Spearman-Brown Coefficient equals 0.949. This correlation coefficient is statistically significant at  $\alpha = 0.05$ , so it can be said that the test is consistent and valid to be measure what it was set for.

**Table (4.8) : Split Half Method**

<b>NO.</b>	<b>Field</b>	<b>Correlation Coefficient</b>	<b>Spearman-Brown Correlation Coefficient</b>
1.	Psychological	0.751	0.858
2.	Physical	0.784	0.879
3.	Social	0.881	0.937
	<b>All dimensions</b>	0.903	0.949

Thereby, it can be said that the researcher proved that the test was valid, reliable, and ready for distribution for the population sample.

#### **4.6.2. The suggested guidance program to reduce infertility anxiety among infertile women that were following up treatment in Albasma infertility treatment center in Gaza city :**

In the following a detailed presentation of the program as indicative program that includes the following elements:

1. Program Objectives (general objectives, sub- general objectives)
2. The content of the program includes the philosophy of the program and theory it is based upon.
3. Program sessions involving (14) guidance sessions, each meeting includes: The title of the meeting, the objectives of the meeting, the duration of the session, the procedural steps of the session, evaluation of the session.
5. Relative assessment at the end of each session to evaluate the session, to clarify the strengths to enrich and weaknesses to modify.

##### **4.6.2.1. The overall objective of the program:**

This Indicative Program aims to reduce the Anxiety associated with infertility among married women who suffer infertility and following up their treatment at Albasma Center for fertilization in the Gaza city .

### **Procedural objectives of the program**

#### **Extension goal (psychological)**

That is gaining skills to face anxiety and disseminate these experiences to other similar situations in life in addition to the acquisition of expertise and good mental habits

#### **The procedural objectives of the program can be limited as follows:**

1. Provide a clear definition, a comprehensive program and its objectives, its importance.
2. Help women reduce the level of anxiety they have and its associated infertility.
3. Training women to relax and calm in order to reduce anxiety.
- 4- This program is a step in the preparation for the infertile ladies psychologically parallel with the physical preparations.
5. Give the ladies some good advices and to provide them with the correct methods and techniques to how to control their anxiety and to get over it.
6. Training women to relax and calm in order to reduce Anxiety and tension have during the duration of infertility treatment.
7. Preparation of the ladies psychologically, emotionally, cognitively to bypass the treatment of infertility efficiently with their sense of feeling of self-confidence and psychological security.
8. Training the ladies on manage their sense of crisis associated with infertility and make effective use of time during their treatment.

#### **Target group**

A purposive random sample of 12 married women who complains anxiety associated with infertility according to the scale of anexity who were being treated at the center of Albasma for fertilization and infertility treatment.

#### **The number of session's**

The Program is consisted of 16 sessions.

#### **Duration per session:**

45 minutes separated by a short period of rest.

#### **Venue of the meetings:**

Albasma fertilization center / Gaza City

#### **The content of the program:**

##### **Strategy**

The researcher will use techniques of discussion and dialogue, then training members of the group on some of the methods and techniques indicative in various training sessions.

#### **Theoretical perception of the program:**

Researcher used a guidance program based on the theoretical framework, as well as guiding steps to the **Theory of Rational Emotive Behavioral Therapy** using the method of collective guidance with women that suffer from medium anxiety associated with infertility.

From this standpoint researcher thinks that the researcher wanted to achieve two things from this program, shown as follows:

1. Modify negative ideas and beliefs that are attached in their minds of infertility.
2. Reduce anxiety attached with women that suffer from infertility.

#### **Techniques used in the program:**

- Theoretical presentations about concept concerning infertility and the definition of infertility through LCD display& Simplified Lectures.
- Group discussion and dialogue
- observation and listening and practical training
- providing a model showed on a video about hands-on sessions of relaxation.
- Requested homework (if necessary).
- Positive reinforcement.
- De-Briefing

#### **Tools and methods used:**

- (Scientific material that will be distributed on participants) explanatory wall sheets.
- VCR (cassettes) tapes and a Power Point presentation.
- Head Viewer device and transparencies on the subject of the program.
- Procures of guidance describes ways to face of anxiety and reduction.
- Poster boards and special pens that each group will discuss ideas it used ..
- Recorded discs, a computer and an LCD •

#### **Ideas, concepts and mental processes**

Treating the issue of infertility anxiety from all different aspects, as well as to identify the most essential training and tactics guidelines that contribute in the reduction of infertility anxiety.

#### **Experimental designs:**

Indicative Program was implemented on 12 women that suffer from medium infertility anxiety for where the researcher will conduct three applications of the measure. They are shown as follows:

**First measurement:** the pretest: where the researcher applied the measure for the first time on the infertile ladies with medium degrees.

**Second measurement:** the post test: the researcher had applied the measure on the same group of women who have been participated in the program for them and which was conducted immediately after the evaluation of the program.

After the post test, ladies were provided with a compact disc (CD-Rom) that contains relaxation session and guidebook to be seen by the sample to keep their awareness, support and to enrich the skills that have been acquired in facing of anxiety in the indicative program.

**Third measurement:** the post post test, which was conducted a month after the post test that ended by the end of the implementation of the guidance program.

#### **4.6.2.2. Stages of implementing the program:**

**Program passed through four stages shown as follows:**

##### **The start-up phase (preparation phase:**

Where the researcher limited women who suffer from anxiety associated with infertility, then the researcher begin with the program application for the first phase of knowing each other boot and explain to the objectives, framework that is done in the initial preliminary session.

##### **Transition:**

The researcher here focused on the main problem which is the anxiety associated with infertility and clarifies its disadvantages and harms, gets feedback from the participated group and their expectations. That was in the second session.

##### **Phase of construction and work:**

This phase aims to operate researcher on Anxiety reduction among women as well as to give the members some new methods, emotional, and cognitive behaviors to reduce their anxiety that is associated with infertility, it was done in sessions (session 3 to 16).

##### **Termination phase:**

In this stage appears the crystallization of the objectives and the review of what ideas has been discussed, what decisions reached and to prepare ladies psychologically for ending of the program and is done in the final session.

##### **The limits of the program:**

**Spatial limit:** the program was applied on a sample of married women who suffer from moderate degrees of anxiety associated with infertility, who were having treatment of infertility in the Albasma center for fertilization and infertility treatment in Gaza City.

**Temporal limit:** the program was applied from month 3 for the year 2011 until the end of the year 2011.

**Objectivity limitations:** the researcher aimed in the program to reduce the anxiety that is associated with infertility for its benefit and importance in reduction of the levels of anxiety in women and raising awareness for the coming faced ones.

#### 4.6.2.3.Obstacles that the researcher confront

- the absence of an official side that can be depended on in terms of a real number of the study population.
- Lack of information about the mental health, and its relationship with infertility among the infertile women .
- Stigma about the mental health which was an obstacles in the Persuasion For the infertile women to share in the program.
- Scheduling the program sessions to suit the appointment of the all women and that was one of the reasons for the withdrawal of some posts
- Choosing the program titles to suit the needs of the sharing women  
Scheduling sessions appointment to suit the appointment of all women and that was one of the reasons for the withdrawal of some posts

lack of Arabic references& studies about this topic

**Table (4.9): Describes the outline of the indicative program**

<p><b>Program Objectives:</b></p> <ul style="list-style-type: none"> <li>• To help women to reduce the level of anxiety they have as a result of with infertility.</li> <li>• Training women on some basic skills used to reduce anxiety associated with infertility.</li> <li>• give the ladies some good habits and behaves; provide them with the correct ways to reduce the anxiety associated with infertility in women.</li> </ul>
<p><b>Sample Program:</b> Married women who suffer from anxiety associated with primary infertility and who were following up their treatment of infertility in Albasam center of fertilization and infertility treatment living in in Gaza City, able to be member of the program group there age between (20-40)</p>
<p><b>Applier of the program:</b> the researcher itself with the assistance by psychologist in some session</p>
<p><b>Place of implementation of the program sessions:</b> Albasam center of fertilization and infertility treatment in Gaza City.</p>
<p><b>Type of Guidance:</b> Group Guidance.</p>
<p><b>Number of sessions:</b> 16sessions, 45 minutes per session.</p>
<p><b>Techniques of the program:</b></p>



Group discussion and dialogue ,LCD display, Observation and listening and practical training& De-Briefing
<b>Assessment of the program:</b> Formative Assessment – final Assessment.
<b>Duration of session:s</b> sessions and 45 minutes each (two weeks).
<b>Rules and laws of group work:</b> 1. Knowledge of group aims. 2. Emphasis on secrecy and preservation of information. 3. Emphasis on timelines and use of the times of the group. 4.Construction of trust between members of the group

**Table (4.10): Outline of the program (Session number- Session title – session goal – techniques that used ).**

Session number	Session title	session goal	techniques that used
First Session	Preliminary session	recognition of each other's and ice breaking	Group discussion and dialogue
Second Session	Expectations of the program	creating a kind of self confidence and the ability to express among the participant ladies	Group discussion and dialogue
Third Session	Discussion of the concept of infertility, its causes and methods of treatment	Enlighten & Changing misconceptions About infertility	Dialogue and collective debate, and LCD display
Fourth fifth Session	Anxiety and its symptoms	Enlighten the participants of the concept of anxiety and its symptoms	Dialogue and collective debate, and LCD display
Sixth Seventh Eighth Ninth Session	<b>De-Briefing</b>	Alleviation of mental suffering and reduction of psychological pain through feelings	Observation and listening
The tenth session	Relaxation	to get rid of tension	practical training
Eleventh Twelfth	religious therapy	Alleviation of mental suffering	

Session number	Session title	session goal	techniques that used
Thirteenth ,fourteenth fifteenth sessions		and changing of negative thoughts through religious therapy & story occurred in the Islamic	
sixteenth session	finishing the program and evaluation, concluding session	ABPPLYING THE POST TEST	

#### 4.7.Statistical analysis Tools

The researcher would use data analysis both qualitative and quantitative data analysis methods. The Data analysis will be made utilizing (SPSS 20). The researcher would utilize the following statistical tools:

- 1) Spearman correlation coefficient for Validity.
- 2) Cronbach's Alpha for Reliability Statistics.
- 3) Split Half Method for Reliability Statistics.
- 4) Frequency and Descriptive analysis.
- 5) Wilcoxon Test. used to examine if there is a statistical significant difference between group means of pre and post test.

#### 4.8.Study Steps:

In order to achieve the objectives of the study, the researcher performed the following steps:

- 1- Review the theoretical framework and educational literature related to psychological counselling, psychological anxiety, and infertility anxiety represented by books and studies in the field of psychological counselling and psychological Anxiety, and infertility Anxiety, and Arabic and foreign masters and doctorate theses and previous studies and standards related to this study in order to develop study tools.
- 2- Start writing the first chapter, including the study problem, objectives, and significance.
- 3- Writing the theoretical framework, which consists of three variables , the first includes psychological intervention, the second cover the anxiety in general the third covered the infertility variable,
- 4- Identifying previous studies related to the subject of study and utilizing and categorizing it .
- 5- Preparing the study tools including (infertility anxiety scale and Indicative Programme of reducing Infertility anxiety that will be covered in the study and

determining its sessions and objectives and procedural steps and presenting it to an elite of arbitrators.

- 6- To obtain an official letter from the Islamic university Implementing the study on the Basma Centre for infertility treatment..
- 7- Determining the population of the study and the actual respondents of the study.
- 8- Applying the study tools on the sample to conduct rationing process to make sure of his sincerity and firmness. And then the sample application in real effective terms.
- 9- Identify members of the experimental group than the actual sample, which got a medium in the Richter scale concern infertility.
- 10- Application the pre-test scale concern infertility anxiety, before to start the program.
- 11- The application of the proposed indicative program on the experimental group for a period of a month and a half by 16 and 45 minutes per session, two sessions per week.
- 12- Reapply scale infertility on the experimental group, after the end of the program Directly.
- 13- After post measurement, ladies were provided a compact disc (CD-Rom) contains some tips and guidebook to be seen by the sample to keep their awareness, support and enrich the skills that have been acquired in the indicative program.
- 14- Reapply scale of infertility on the experimental group, after a month of post measurement.
- 15- To gather information or data to be statistically analyzed with the aim of answering questions and the study hypotheses.
- 16- Interpretation of the findings of the study in light of these findings, writing some of the recommendations and proposals in order to benefit from them in the future.
- 17- Summarize the study in several pages to facilitate the identification of their content.
- 18- Summary translation into English to be utilized widely.

### **Summary:**

In this chapter, the researcher specified the main methodological parts. Including; the study design, study sample (study population, sample size, sampling process), study location, the measuring tool that was used in collecting data, (description of the questionnaire), Reliability and Validity Calculations, data collection procedures and data analysis procedures.

# Chapter Five

## Results & Discussion

## Chapter Five Results & Discussion

### 5.1 Results & Discussion

At this chapter, the researcher is seeking to achieve the first objective of the study, the data has been collected from the sample through the measure, and the data was entered, filtered, and analyzed statistically via the statistical Software packages for the Social Sciences (SPSS 17) using a number of statistical techniques in the analysis that are going to be shown in order to test the hypothesis.

### 5.2. Questions of the study

**\* What is the level of each of the infertility anxiety sides: Psychological, Physical, Social, the overall infertility anxiety among infertile women in Gaza city within the pre test, the post test, the post post test?**

To figure out the level of each of the infertility anxiety sides among infertile women in Gaza , the followings were computed: the means, Standard Deviations and the percentage weights, for each single dimension, and the total infertility anxiety measure. Related results are shown at the tables below:

**\*What is the level of each of the infertility anxiety sides: Psychological, Physical, Social, the overall infertility anxiety among infertile women in Gaza, within the pretest?**

**Table (5.1): Descriptive Statistics for Pre test**

Dimension	Mean	Std. Deviation	Proportional mean (%)
All side	3.85	0.28	77.03
Psychological side	3.94	0.25	78.74
Physical side	3.85	0.50	77.04
Social side	3.70	0.51	73.98

For the level of each of the infertility anxiety for the pre test among infertile women in Gaza city, the results showed that the most common dimension was the Psychological with percentage weight equals 78.7%, and this implies how high degrees of

Psychological dimension the sample have, then comes the Physical dimension with percentage weight equals 77.04%, then the Social side with percentage weight equals 73.9%.

For the Total measure of infertility anxiety pre test among infertile women in Gaza city, the percentage weight was 77.03%, that shows that the sample have high degrees of infertility anxiety in the pre test which implies a needed guidance program to reduce the high levels of infertility anxiety and its related sides.

The researcher attributed this result to that the experience of infertility which reflects negatively on the economic, the physical psychological and social status of the infertile women this what was confirmed by , Domar, AD.(1997). Phipps& Abbey et al,(2001). and psychological effects Gorgani, S. (2001).., especially for women, This often results in multiple stresses and needs for coping from especially at the level of women. Although childbearing is a major, normative transition for both men and women , infertile women experience more negative effects than infertile men throughout the entire infertility diagnostic and treatment process "... *In addition, women are more likely to perceive childlessness as simply unacceptable matter*" Abbey et at, (1991)

- ❖ Moreover, medical treatment for infertility dramatically alter the couples' lifestyles as, their life routines are replaced by continual visits to the doctor's clinics or laboratory for blood investigations and ultra sound IVF surgeries. this puts a tremendous load on emotional and financial resources of the spouse. This load is increasingly heightened by siege on Gaza Strip which causes a low socio economic status that people of Gaza suffer.
- ❖ Failure of the treatment after that suffering and financial burden on the couple. is disastrous , That is it may lead to psychological problems such as anxiety and depression .
- ❖ The Palestinian social traditions throw a psychosocial pressure on infertile women.

That is a newly married women are expected to become pregnant as soon as possible However, infertile women fear being stigmatized, divorced, or forced to agree to polygamy.

**\*What is the level of each of the infertility anxiety sides: Psychological, Physical, Social, the overall infertility anxiety among infertile women in Gaza city within the post test?**

**Table (5.2): Descriptive Statistics for Post test**

Dimension	Mean	Std. Deviation	Proportional mean (%)
All side	1.96	0.28	39.20
Psychological side	2.22	0.31	44.46
Physical side	1.95	0.51	39.03
Social side	1.53	0.33	30.67

For the level of each of the infertility anxiety for the post test among infertile women in Gaza city, the results showed that for the Psychological side, the degrees were reduced from 78.7% in the pre to 44.5%, and this implies how effective was the guidance program in reducing the high degrees of Psychological dimension the sample used to have. For the Physical dimension, the degrees were reduced from 77.04% to 39%, then for the Social side the degrees were reduced from 73.9% to 30.6%.

For the Total measure of infertility anxiety post test among infertile women in Gaza city , the percentage weight was 77.2%, and it was reduced to 39.2% that shows how effective was thee guidance program in reducing the high degrees of infertility anxiety and its sides the sample used to have in the pre test.

**\*What is the level of each of the infertility anxiety sides: Psychological, Physical, Social, the overall infertility anxiety among infertile women in Gaza Strip within the post post test?**

**Table (5.3): Descriptive Statistics for post post test**

Dimension	Mean	Std. Deviation	Proportional mean (%)
All side	1.65	0.19	33.05
Psychological side	1.68	0.30	33.62
Physical side	1.59	0.20	31.85
Social side	1.68	0.46	33.65

For the level of each of the infertility anxiety for the post post test among infertile women in Gaza ,the results showed that for the Psychological side, the degrees were reduced from 44.5% in the post test to 33.6% in the post post test to and this implies that the women had kept the awareness and the knowledge they have learned in

controlling their anxiety also show how effective was the period of time between the end of the guidance program and the post test in keeping performing the anxiety treatment for the high degrees of Psychological dimension the sample used to have. For the Physical dimension, the degrees were reduced from 39% to 31.8%, then for the Social side the degrees were reduced from 30.6% to 33.6%.

For the Total measure of infertility anxiety post post test among infertile women in Gaza city , the percentage weight was reduced from 39.2% to 33% that shows the women had kept the awareness and the knowledge they have learned in controlling their anxiety also show how effective was the period of time between the end of the guidance program and the post test in keeping performing the anxiety treatment for the high degrees of Psychological dimension the sample used to have.

### 5.3. Hypotheses of the Study:

**\*Are there a statistically significant differences in the overall degree of anxiety and dimensions before and after the application of the program to the right of the post test.**

To figure out that, the researcher used Wilcoxon Test to figure out the differences between the infertility anxiety and its related dimension before and after performing the guidance program for infertile women in Gaza .

**Table (5.4): Descriptive statistics and Wilcoxon Test for Pretest and Post test in all sides of infertility anxiety**

Dimension	Type	N	Mean	Std. Deviation	Z – test	P- value
Psychological side	Pre test	12	85.8	5.3	3.06- **	0.001
	Post test	12	48.5	6.8		
Physical side	Pre test	12	75.5	10.4	3.06- **	0.001
	Post test	12	37.8	8.5		
Social side	Pre test	12	51.9	15.2	2.8**-	0.001
	Post test	12	24.4	5.6		
Total scale	Pre test	12	213.2	21.4	3.06- **	0.001
	Post test	12	110.8	11.3		

\*\* P-value<0.01

\* P-value<0.05



Table (5.4) shows that the mean of the anxiety related to infertility in the pre test was 213.2 and after the program application it was 110.8 in post test, the value of Wilcoxon Test equals  $Z = -3.06$ , Sig. (p-value) = 0.001. So we reject the null hypothesis of equality of means for Pre test and Post test. That is, there is sufficient evidence to conclude that the means of Pre test and Post test are significantly different.

Since the sign of the Z is negative, then the mean of Pre group is significantly greater than Post test.

For all dimensions in the anxiety related to infertility scale p-value was less than 0.05, This result means that the program was positively effective on reducing the level of anxiety at the target group. Since the result of the program application came positive in favour of the post test the researcher can ascribe this result to the following:

- ❖ First: the program building that it was built on a scientific way based on the bio psycho social need of the target group as it was illustrated in chapter three So, the program sessions matched the target sample needs  
Also the descending arrangements of the program session from the introducing, until reaching the main problem of the study Contributed in this succeeding
- ❖ The trust relation that the researcher focus to build between her and the group of the study which is the core stone in the success of any therapeutics relationship also the introducing from the researcher to group to the about the laws and time of each session and the period of the program all of this make them insight about the program and which consequently led to the commitment cooperation as they were on appointment all over the session of the program doing home work, solemnities, and their positive interaction during the session.
- ❖ other contributing factor to this positive effect that the researcher adopt the rational emotive theory which it goal to replace negative thought by positive one so the group begins to think in rational way,

This result agreed with the following studies with the following studies Ahmad, et al. (2008); Faramarzi, et al. (2007); Stewart et al., 1992; Ramezanzadeh, et al. (2011); Domaret al., 2000a, b; Facchinetti et al., 2004; Tarabusi et al., 2004), as the type of intervention was the as rational emotive therapy is a part of CBT

But the study researcher study differed from these studies as it carried out the rational emotive therapy through religious sessions that was carried out by concentration on Islamic and the Quran way in changing these negative thoughts also the adoption of the story style about events that occurs in the ancient Islamic history this leads disseminate the positive ideas among them

facing reality without magical thinking and in realistic way. Taking lessons from the stories of Islamic heritage, especially as the owners of these stories are our ideal role modeling.

And this was assured by Koenig, H.G., et al (1998). "*Since religious beliefs are part of our definition of internal and external reality, they can become the source of either great conflict or great contentment religious coping behaviors related to better mental health were at least as strong, if not stronger, than were non-religious coping behaviors*"

Group working another contributing factor in this positive result

As all the group of the study have the same problem which allows them to receive the support and encouragement from each other seeing that others going through the same problem, successfully coping with a problem, other members of the group can see that there is hope and recovery is possible which can help them feel less alone, not unique and encourages each member to breathe and speak about her problem without embarrassment communicate in a safe environment, learn problem solving techniques from other members of the group. This what was approved by Domar, AD et al. (2000). as he stated "*seeing someone who is progresses, they can in turn serve as a role model and support figure for others. This can help foster feelings of success and accomplishment*"

The study researcher agreed in this outcome with the study of CHY, C. (2006). In his study The Effectiveness of psychosocial group intervention for reducing anxiety in women undergoing vitro fertilization which in less state anxiety after the intervention

\* Are there a statistically significant differences in the overall degree of anxiety and dimensions between the post and the follow up test related to the follow up test

To figure out that, the researcher used Wilcoxon Test to figure out the differences between the infertility anxiety and its related dimension between the post test and the post post test for infertile women in Gaza strip.

**Table (5.5): Descriptive Statistics and Wilcoxon Test for Post test and post post test in all dimensions of anxiety related to infertility**

Dimension	Type	N	Mean	Std. Deviation	Z -test	P-value
Psychological side	Post test	12	48.5	6.8	-2.981	0.003*
	post post test	12	36.8	6.8		
Physical side	Post test	12	37.8	8.5	-2.244	0.025*
	post post test	12	31.6	3.8		
Social side	Post test	12	24.4	5.6	-1.023	0.306
	post post test	12	27.0	7.2		
Total scale	Post test	12	110.8	11.3	-2.668	0.008 *
	post post test	12	95.3	10.3		

Table (5.5) shows that the mean of the anxiety related to infertility in the post test was 110.8 and it was 95.3 in post post test, the value of Wilcoxon Test equals  $Z = -2.668$ , Sig. (p-value) = 0.008. So we reject the null hypothesis of equality of means for post test and Post post test. That is, there is sufficient evidence to conclude that the means of post test and Post post test are significantly different.

Since the sign of the Z is negative, then the mean of post group is significantly greater than Post post test.

For psychological and physical dimensions in the anxiety related to infertility scale p-value was less than 0.05, this result came positive in favour of the post post test.

For the social side Wilcoxon test not give a difference between post and post post, the values of the  $Z = -1.024$ ,  $pvalue > 0.05$

Since the sign of the  $Z$  is negative, then the mean of Post test is significantly greater than post post test.

The researcher attribute this result to following :-

- ❖ The concentration on the religious side leads to the Continuity effect of the programme and accreditation in changing negative thoughts to positive thoughts through religion, where what changed through religion ensure its continuity as we are an Islamic society
- ❖ The Distribution CD about the relaxation session so that you can do in the house
- ❖ The distribution of simple Handbook about the simple ways get rid of anxiety and which is accessible to them
- ❖ Researcher readiness to listen to the group of intervention by phone or interview if necessary
- ❖ That the period between the post and post post test was a reasonable

All of this keep the group awareness

**Is there a statistically significant differences between the pre and post test attributed to the following socio-demographic data (age ,number of marriage years ,relative between the husband ,house holed type ,lateness of child bearing is related to the wife or the husband, the frequency of invetro fertilization (IVF) , level of education for the couples).**

**Is there significant statistical difference between Pre test and Post test for due to relatives between the husband .**

**Table(5.6): Kruskal Wallis Test for difference between Post test and Pre test in all dimensions of anxiety related to infertility according to The relatives' between the husband**

Dimension	Type	N	Mean Difference between pre and post	Std. Deviation	Chi-Square	P-value
Psychological side	First degree relatives'	3	-38.0	3.5	1.07	0.585
	Second degree relatives'	7	-36.0	7.8		
	No relatives'	2	-40.5	4.9		
Physical side	First degree relatives'	3	-31.7	9.6	1.01	0.605
	Second degree relatives'	7	-40.4	12.4		
	No relatives'	2	-37.0	21.2		
Social side	First degree relatives'	3	-37.7	3.2	1.042	0.594
	Second degree relatives'	7	-25.6	16.3		
	No relatives'	2	-19.0	28.3		
Total scale	First degree relatives'	3	-107.3	12.9	0.147	0.929
	Second degree relatives'	7	-102.0	18.2		
	No relatives'	2	-96.5	44.5		

Table (5.6) shows that the p-value (Sig.) is greater than the level of significance  $\alpha = 0.05$ , then there is insignificant difference between Pre test and Post test due to The relatives' between the husband

This result reflect that regardless of the relativeness between the husbands the wife fear from the polygamy.as in the Islamic Arab culture children leads to sustainability and security of marriage.

**Is there significant statistical difference between Pre test and Post test due to house hold type**

**Table(5.7): Mann-Whitney U for difference between Post test and Pre test in all dimensions of anxiety related to infertility according house hold type.**

Dimension	Type	N	Mean Difference between pre and post	Std. Deviation	Z -test	P-value
Psychological side	With family	6	-38.7	6.9	-1.05	0.295
	independent	6	-35.8	6.0		
Physical side	With family	6	-42.2	10.0	-1.5	0.128
	independent	6	-33.2	14.0		
Social side	With family	6	-36.3	8.2	-1.69	0.091
	independent	6	-18.7	18.0		
Total scale	With family	6	-117.2	9.6	-2.6	0.01 **
	independent	6	-87.7	16.5		

\*\* P-value<0.01

\* P-value<0.05

Table (5.7) shows that the p-value (Sig.) is smaller than the level of significance  $\alpha = 0.05$ , then there is a significant difference between Pre test and Post test due to House hold type of the total of the scale. It has clearly shown that who living in a separate house the anxiety related to infertility was less than who living with family . The researcher interprets this result is that the customs and traditions in the Arab Islamic societies have a significant impact on the couples regardless of the house hold type

**Is there significant statistical difference between Pre test and Post test due whom the lateness of child bearing related to .**

**Table(5.8): Kruskal Wallis Test for difference between Post test and Pre test in all dimensions of anxiety related to infertility according to the lateness of child bearing is related to**

Dimension	Type	N	Mean Difference between pre and post	Std. Deviation	Chi-Square	P-value
Psychological side	The wife	6	-38.8	7.2	1.14	0.567
	the husband	4	-36.0	7.0		
	No one	2	-35.0	2.8		
Physical side	The wife	6	-36.0	12.7	.25	0.884
	the husband	4	-39.0	14.1		
	No one	2	-40.0	17.0		
Social side	The wife	6	-28.8	16.7	3.16	0.206
	the husband	4	-18.8	16.6		
	No one	2	-41.0	2.8		
Total scale	The wife	6	-103.7	22.5	1.67	0.433
	the husband	4	-93.8	17.8		
	No one	2	-116.0	17.0		

Table (5.8) shows that the p-value (Sig.) is greater than the level of significance  $\alpha = 0.05$ , then there is insignificant difference between Pre test and Post test due to The lateness of child bearing is related to

This result is interpreted that the female carrying the psychological barden of infertility, even when the reproductive impairment lies with the husband and this result agreed with the result of the researcher (Peterson, BD., etal,2006). The famale typically the identified patient in fertility centers regardless of which spouse carries the reproductive impairment, it is most often the women who undergo the bulk of the invasive procedures, are responsible for daily monitoring of their menstrual cycles and this what approved by the reserchers (Sardari Sayar, A. 2005). ; (Saki, M.,2005). (Seif, D. 2001).

**Table(5.9): Kruskal Wallis Test for difference between Post test and Pre test in all dimensions of anxiety related to infertility according to age of the wife.**

Dimension	Type	N	Mean Difference between pre and post	Std. Deviation	Chi-Square	P-value
Psychological side	20-26	3	-39.75	8.66	1.69	0.429
	27-34	7	-35.17	4.62		
	35-40	2	-38.50	7.78		
Physical side	20-26	3	-35.75	14.52	0.44	0.804
	27-34	7	-40.50	13.68		
	35-40	2	-33.00	7.07		
Social side	20-26	3	-29.50	20.49	0.69	0.709
	27-34	7	-24.83	16.04		
	35-40	2	-31.50	16.26		
Total scale	20-26	3	-105.00	27.36	0.42	0.811
	27-34	7	-100.50	20.71		
	35-40	2	-103.00	1.41		

Table (5.9) shows that the p-value (Sig.) is greater than the level of significance  $\alpha = 0.05$ , then there is insignificant difference between Pre test and Post test due to age of the wife.

### Summary

Throughout this chapter, statistical analysis was performed; tables, frequencies, percentages to answer the questions of the study. Wilcoxon test was used to answer hypotheses of the study. Regarding the results of these questions, it can be concluded that

The guidance programme was statistically effective and sufficient in reducing the anxiety associated to infertility among infertile women that following up their treatments in Albasma infertility treatment center in Gaza city. Concluded clear differences between the relative weights of the infertility Anxiety dimensions tests according to time of application (the more the time the lower the scores of infertility anxiety).



# CHAPTER SIX

## RECOMMENDATIONS

## 6.1.Recommendations

Based on the findings of this study, the researcher propose the following

### To the owners of the infertility centers

- ❖ Gynecologists to be made aware about the prevalence of psychiatric illness ,it nature ,sign and symptoms among infertile women and their need for referral to psychologists or psychiatrists.
- ❖ Treatment of infertile women in all infertility centers should be through the combined and comprehensive and close work of both gynecologists and psychologists and psychiatric nurses should be set up in these centers.
- ❖ psychological intervention methods, , should be considered for infertile women so as to improve their mental health and increase their chance of conceiving,

### To the ministry of health

- ❖ The mental health team should make the public, especially infertile women, aware about the importance of combined use of psychotherapy and routine treatment to treat infertility. This can help increase success rate of infertility treatment and can improve the quality of life of these patients
- ❖ Psychological education to the family members of infertile women aware about the importance of support and the help and support they can give to these individuals to decrease mental stress.
- ❖ The Social Welfare Society and other related centers should work in cooperation in order to facilitate the process of child adoption in these Individual
- ❖ establishment of centers affiliated to the Ministry of Health to care for this category in parallel In its sponsorship to the fertile women's .

## 6.2.Suggestions for Further Research

Based on the finding the researcher suggests the following:-

- ❖ applying this program among the infertile couples .
- ❖ to know the effect of Cognitive behavioral therapy in reducing anxiety and depression among the infertile women.

- ❖ to know the effect of Cognitive behavioral therapy in reducing anxiety and depression among the infertile males .
- ❖ to identify the effect of psychological intervention in improving marital adjustment among the infertile couples.
- ❖ Preparing an educational program about the psychological and social problem that the infertile couples complain .

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# Annexes

## Annexes (1)

نموذج موافقة للمشاركة في الدراسة

بسم الله الرحمن الرحيم

الجامعة الإسلامية - غزة



كلية التربية

عمادة الدراسات العليا

الأخت الفاضلة-----

السلام عليكم ورحمة الله وبركاته،،،

أضع بين أيديكم هذه الاستبانة التي تهدف إلى التعرف على فعالية العلاج النفسي في تخفيف القلق لدى السيدات العقيمات في غزة

وحيث أنني أؤمن بأنكم خير مصدر للمعلومات المطلوبة أرجو من سيادتكم التكرم في هذه الاجابه على هذه الاستبانة والتي ستستخدم نتائجها لأغراض البحث العلمي فقط .

السيدة الفاضلة ضعي اشاره مقابل العبارة التي تناسبك بمصادقية حتى تتوصل الباحثة إلى نتائج علميه صحيحة .

شاكرين لكم حسن تعاونكم معنا

الباحثة: نادية بلوط

وتفضلوا بقبول فائق الاحترام والتقدير

## Annex2

### Questionnaire in Arabic

#### أولاً : البيانات الشخصية

(1) السن عند الزواج

الزوج :-

42 \_\_\_\_ 34  ، 34 \_\_\_\_ 26  ، 26 \_\_\_\_ 18

الزوجة:

42 \_\_\_\_ 34  ، 34 \_\_\_\_ 26  ، 26 \_\_\_\_ 18

(2) عدد سنوات الزواج

اكتر من ذلك  ، 20 \_\_\_\_ 14  ، 14 \_\_\_\_ 8  ، 8 \_\_\_\_ 2

(3) هل أنت الزوجة :

الأولى  الثانية

(4) هل سبق لك الإنجاب :

نعم  لا

إذا كانت الاجابه نعم

من الزواج السابق  من الزواج الحالي

(5) القرابة بين الزوجين

قرابة من الدرجة الأولى  قرابة من الدرجة الثانية  لا يوجد قرابة

(6) نوع السكن

مع العائلة  في بيت مستقل

(7) يعود السبب تأخر الإنجاب

للزوج  ، للزوجة  ، لا أحد  .

(8) عدد مرات الإخصاب (أطفال الأنابيب)

2-4  ، 4-6  ، أكثر من ذلك  .

(9) المستوى التعليمي للزوج

إعدادي  ، ثانوي  ، دبلوم  ، بكالوريوس

ماجستير

(10) المستوى التعليمي للزوجة:

إعدادي  ، ثانوي  ، دبلوم  ، بكالوريوس

ماجستير

(11) مستوى الدخل

500-----1000  ، 1000-----1500  ، 1500-----2000

أكثر من ذلك

(12) مدة العلاج :

2-8  ، أكثر من ذلك



ثانيا التأثير النفسي لتأخر الإنجاب:-

الرقم	الفقره	دائما	غالبا	أحيانا	نادرا	لاعلى الإطلاق
-1	اشعر بالهدوء					
-2	اشعر بالأمان					
-3	اشعر بفقدان المتعة في الحياة					
-4	أغضب لأتفه الأسباب					
-5	اشعر بالحسرة على سنوات الزواج التي مضت بدون إنجاب					
-6	اكره التعليمات وخاص "اهدي"					
-7	اشعر وكأن مصيبة ستحصل					
-8	اشعر بالطمأنينة على حياتي الزوجيه					
-9	اشعر أن تأخر الإنجاب عقاب من الله					
-10	اشعر أن تأخر الإنجاب ابتلاء					
-11	اشعر أن أموري متعسرة					
-12	اشعر بالتردد عند اتخاذ القرار					
-13	الإنجاب مصدر سعادتي الأول					
-14	اشعر بفقدان السيطرة على جسدي بسبب تعرضي للفحوصات من قبل أكثر من طبيب					
-15	اشعر بقلة التركيز .					
-16	أصبحت أراقب موعد الطمث بتوجس					
-17	أصبحت أراقب تصرفات زوجي					
-18	اشعر بالخوف من المستقبل					
-19	اشعر أن حياتي الجنسية مع زوجي غير مجديه					
-20	التفكير في الإنجاب اثر على مسار حياتي اليومية					
-21	أصبحت أهمل بأعمالي المنزليه					
-22	قل انجازي ودافعي للعمل					

عند اقتراب موعد الطمث أو موعد زيارة الطبيب اشعر بالاتي:

الرقم	الفقره	دائما	غالبا	أحيانا	نادرا	لاعلى الإطلاق
-1	استطيع النوم بشكل طبيعي					
-2	أنام نوما متقطعا					
-3	أشعر بالغثيان					
-4	اشعر بالمغص					

					اشعر بالإسهال المفاجئ	-5
					اشعر بالرغبة بالقئ	-6
					اشعر بألم في المعدة	-7
					تكرار في مرات البول	-8
					اشعر بعدم الإفراغ الكامل للمثانة	-9
					اشعر بالرغبة في الرجوع مره أخرى بعد الانتهاء من عملية التبول	-10
					ينتابني سرعه في دقات القلب	-11
					ينتابني رجفة بالأطراف	-12
					ينتابني خذلان بالأطراف	-13
					ينتابني الم في الرأس	-14
					اشعر بالدوار (الدوخه)	-15
					اشعر بالاضطراب	-16
					اشعر بالتعب والهزل العام	-17
					اشعر بالتعرق	-18
					اشعر بصعوبة بالتنفس	-19
					اشعر بفقدان بالشهية	-20

## ثانيا التأثير الاجتماعي لتأخر

لاعلى الإطلاق	نادرا	أحيانا	غالبا	دائما	الفقرة	
					تضا يقني نظرات الشفقة في أعين الآخرين	1
					علاقاتي الاجتماعية أصبحت محدودة	2
					ارفض الخروج مع زوجي في الزيارات العائلية	3
					أتجنب الجلوس في المجالس الاجتماعية التي فيها سيدات حوامل	4
					اشعر بالغيره عند سماعي أن إحدى قريباتي أنها حامل	5
					اكره الاجابه على الاسئلة المتعلقة بالإنجاب	6
					أشعر بحسره إذا زرت أماكن بيع ألعاب الأطفال لا	7
					أشعر بحسره إذا زرت أماكن بيع ملابس الأطفال	8
					إذا رأيت زوجي يحمل طفل لقريبه اشعر بالغيرة	9
					يلضايقني مشاركة الأقارب للتهنئة عند انجاب الأطفال	10
					أشارك أقاربي باحتفالهم بأعياد ميلاد أبنائهم	11
					نظام مواعيد العلاج أربك حياتي اليومية	12
					اشعر بالتوتر عند سماعي خبر انجاب احدى قريباتي	13
					اشعر بالنقص عند وجودي في مجلس فيه سيدات حوامل	14
					لا أحب الجلوس في المجالس العائلية حتى لا اسمع كلمة "الله يعوض عليك"	15
					قريباتي اللواتي تزوجن بعدي أنجبين هذا يجعلني اشعر بالغيره	16

0

### Annex 3

#### Consent form' English version

##### Dear participant

I am student in Islamic University of Gaza in the master of community mental health (nursing science). I wish to carry out a study; the goal of this study is to understand the effect of psychological intervention in reducing anxiety among infertile women

This study has a scientific goal, and all the data which will collect from you will consider confidential and the researcher will present to you any information you need regarding this study.

I cordially invite you to participate in this study and complete this questionnaire.

**Your sincerely**  
**Researcher, Nadia ballut**

**Annex 4**  
**Questionnaire in Arabic**

**First personal information**

**(1) Age at marriage**

-The husband:-

16-----26,  26-----34,  34-----42

-The wife : \_

16-----26,  26-----34,  34-----42

**(2) number of marriage years**

2-----8,  8----- 14 ,  14----- 20,  More than

**(3).Are you the**

the first or the  second Wife

**(4)Do you have children**

Yes  No

**If the answer is yeas is it from the**

recent marriage or  previous marriage

**(5) The relatives' between the husband**

first degree relative ,  second degree  No relative

**(6) House hold type**

With the family ,  Independant house

(7)The lateness of child bearing is related to

,  the wife  the husband ,  No one

(8) The frequency of inventorfertilization (IVF)

2-----4,  4-----6,  more than

(9)The level of education For the husband

Prepatory ,  secondry ,  Diploma

Bachelor  Master

10)The level of education For the wife

Prepatory ,  secondry ,  Diploma

Bachelor  Master

(11)Level of financial Income

500-----1000,  1000-----1500,  1500-----2000

More than

(12)period .of treatment

2-----8,  More than

## Second

### Psychological impact of infertility

No	category	Always	often	Some times	Rarely	Never
1	I don't feel calm					
2	I don't feel security					
3	I feel that life is not interesting					
4	I feel angry for trivial reason					
5	I regret years passing without child bearing					
6	I hate receiving comments' like be calm					
7	I feel that a disaster will happen					
8	I feel tranquility in my marriage life					
9	I feel that infertility is punishment from Allah					
10	I feel that infertility is a test for my faith in Allah					
11	I feel that my affairs are difficult					
12	I feel hesitate at making decision					
13	Child bearing is the first source of my happiness					

14	I feel that I lose control of my body because I examined by many doctors					
15	I feel lack of concentration					
16	I wait the time of menses with fear					
17	I watch my husband behavior					
18	I m worried about the future					
19	I feel that my sexual life with my husband is useless					
20	Thinking of child bearing affected my daily life					
21	I have started to neglect my house work					
22	I feel that my achievement and my motivation toward work are slowing down					



**At the expecting menstrual cycle or visiting the.Dr I feel the following:-**

No	Category					
1	I can't sleep normally					
2	I Sleep in interval					
3	I feel nauseated					
4	I feel colic					
5	I feel sudden diarrhea					
6	I feel that I want to vomit					
7	I feel stomachache					
8	I have frequency of urination					
9	I feel that my bladder Is not absolutely empty					
10	I feel that I want to go back to the bath room after urination					
11	I feel heart beating					
12	I feel tremors					
13	I feel tingling in my extremities					
14	I feel headache					

15	I feel dizziness					
16	I feel confusion					
17	I feel exhausted					
18	I feel sweating					
19	I feel difficulty of breathing					
20	I feel loss of appetite					

Second social impact of infertility

No	Category	Always	often	Some times	Rarely	never
1	Pity looks of others annoys me					
2	My social relationship has become limited					
3	I refuse to accompany my husband in family occasion					
4	I avoid the social sitting with pregnant women					
5	I feel jealous when I informed that one of my relative is pregnant					
6	I heat to answer the questions related to child bearing					
7	I feel heart broken when I visit kids' toys shop					
8	I feel heart broken when I visit kids' clothes shop					
9	I feel jealous when I see my husband holding chilled to his relatives					
10	I feel annoyed when I have to congratulate other ladies for giving birth					
11	I Don't congratulate my relatives in their children birthday barites					

12	Regular visit to receive treatment disturb my daily life					
13	I feel stress when I hear that one of my relatives have got bear					
14	I feel low self while sitting with pregnant women's					
15	I don't like to be in family sitting in order not to hear "Allah					
16	My female relatives get pregnant this lead me to feel jealouse					

## Annex4

### Clarification of the program session :-

#### **The first session: Preliminary**

This meeting was the most important meetings in the entire program where it represents the foundation stone and of which the following were identified:

Rules and principles of the relationship between the researcher and the members of the group involved.

Clarifying the roles, rights and duties of each participated woman.

Determine what it will be recognized at the coming sessions.

#### **Techniques used:-**

group discussion and dialogue

#### **Goals of the session:**

The researcher be able to recognize the members of the group involved women.

The participants of women be able to recognize each other.

The participants of women recognize the program in terms of (goals, program sessions, number, place and duration.

an agreement between the researcher and the ladies which defines the rules of work and the relationship between the researcher and Posts

Break the ice.

#### **Content of the session:**

-The researcher in this session started by introducing herself first and then introducing the participants to each other to create kind of trust and acceptance among participating ladies on one hand and the researcher from the other hand

-That this program will be implemented to get a master's degree in community mental health, and that whatever the sessions discuss is a subject of total confidentiality and that its results will be used for scientific research purposes only.

-The researcher urged the participants on the need for cooperation and commitment to the time of the sessions that have been agreed upon, and to the duties assigned.

The researcher confirmed the participants that the participation is optional and not mandatory.

The researcher distributed files on the participating ladies to save duties and reports that were completed

### **Homework**

At the end of the session, the researcher asked the participants about their expectations for the program, and each participants will handwrite this as a homework.

### **The second session:**

Theme: Expectations of the group members

#### **Objectives:**

1.creating a kind of self-confidence and the ability to express among the participant ladies

2.the researcher recognized, from the answer to this question, whether the program is compatible to some extent with their expectations

#### **Techniques used:**

Dialogue and collective debate

#### **Content of the session**

-The researcher initiated the group members to start the session

-The researcher asked for the homework.

-The researched asked one of the participants to contribute by writing down her expectations on a sheet of paper for presentation.

-Expectations that could be achieved were identified and the those which cannot be achieved were excluded with the stating the reasons.It is then recorded and keep in acertain file.

### **Homework:**

What is infertility from your point of view

### **Third Session**

**Session Title:** infertility definition, causes and methods of treatment

#### **Objective:**

Enlighten participating ladies in the true sense of the delayed childbearing.

Change misconceptions spread between the participants, which returns to the Palestinian community in particular and the Arab society in general.

**Techniques used:**

Dialogue and collective debate, and LCD display

**Content of the session**

The researcher discussed the homework assigned to the participants in the previous session.

Researcher introduced infertility definition, causes and methods of treatment, and this achieved the first objective which is to identify infertility and its multiple causes and that these causes could possibly return for women or men; of course, this will be done in a very simplified ways.

The researcher discussed the methods of treatment available for infertility

Putting forward the idea of psychological intervention and how most researches proved the success of psychological intervention in easing the extent of tension, anxiety and depression associated with the period of treatment of infertility, in which some studies proved the importance of psychological intervention in increasing success rate of fertilization.

**Fourth and Fifth Sessions**

**Session Title:** Anxiety

**Objective:**

Insight the participants of the concept of anxiety and its symptoms

**Techniques used**

Dialogue and debate

**Content of the session**

The researcher asked the following questions to get closer to the idea and get the attention:-

- 1- if one of us has an exam tomorrow, what symptoms will they feel?
- 2- if someone has a job interview , what will they feel before and during the interview?

Through answers, the concept of anxiety ,that accompanies the situations that we go through and that we are trying to overcome, has been clarified, and this is the natural feeling, but if it affects our daily activities, then it becomes an obstacle to the achievement of our goals

The researcher clarified how anxiety could possibly affects the body organs and its effectiveness, including organs that have a role in reproduction

In these two sessions, the researcher focus on that the anxiety symptoms felt by each lady, whether when menstrual day is approaching, or the date of the doctor visit , or during the period of preparation for the Invtro Fertilization (I VF)

### **Homework**

The researcher asked the participants to write down the psychological and social effects of infertility

### **Sixth, Seventh, Eighth and Ninth session**

#### **Session Title:**

Emotional De-Briefing

#### **Objective:**

Ellevation of mental suffering and reduction of psychological pain through emotional De-Briefing

That women benefit from each other's experiences

#### **Techniques used:**

Observation and listening

#### **Content of the session:**

The researcher has implemented the session based on the following steps



## ❖ Presentation “Introduction”

The step by which a sense of confidence and acceptance is generated, and the opportunity for the participants to express their ideas and feelings and describe their feelings freely is given

The researcher distributed the participants into four groups, in which each group has been listened to in four sessions.

The introduction also involved Clarifying the laws of the session in terms of: that the session will be closed:-

- The need to turn off cellphones during the session
- Not to reveal dangerous secrets.
- To speak only of events related to the topic of the session
- Not to insult and ridicule of others' feelings and ideas.
- Each person speaks for him/herself and not for the other
- Notifying that the person may feel upset when expressing their problem and this is normal.
- Giving adequate and equal opportunities for everyone to ask for questions and explanations.

### **2) Stage of Truth:**

- Express of the psychological and social effects of infertility

### **Stage of ideas:**

At this stage, the researcher focused on the processes of thinking, decision-making and brainstorming of ideas related to the event; this was done by asking one of the following questions to the participants:

- What was your first impression during the event and during experiencing this event?
- What did you do or how did you behave during the event?
- What was the hardest thing that came to your mind those moments?
- What is the idea that came to your mind the most during the event

### **Stage of emotions:**

Sadness, jealousy, and sorrow

Where the researcher asked the participants the following questions:-

What did you feel the most at that moment?

How did you feel when that happened?

### **Stage of reaction:**

Here the researcher emphasized that the reactions are normal, because you are natural people at this stage

- How events made you behave?

The researcher ended the meeting and acknowledged the participants of the title of the next session (relaxation)

### **Tenth session:**

**Title:** relaxation

**Objective:** to get rid of tension

**Techniques:** practical training

### **Content of the session**

Relaxation and meditation, in which each lady is to be given a CD recording this session to be able to practice it at home, and the lady who does not have a computer at home can record the session on mobile.

At the end of this session, each lady will be asked as a homework to exercise relaxation sessions at home and will be urged that this has a great role in stress relief.

### **Eleventh, twelfth, and thirteenth fourteenth sixteenth session**

**Session Title:** religious therapy

**Techniques used:** Roll modeling , Style stories

**Objective:**

- Alleviation of mental suffering and changing of negative thoughts reduction of psychological pain and providing psychosocial support changing through the Quranic verses, and stories of Islamic Heritage  
Evoking religious feelings of participants to alleviate their suffering propagation religious consciousness

**Content of the session:**

The researched confirmed in these sessions on the following:

**Positive outlook:**

- The importance of looking at all the problems that occur with us as solvable, but we must invest these negative problem in our life to make it something positive, useful and effective.

Looking at negative things in a positive view, and this is what the Quran has done when it assured us that the things that we thought as evil may held behind a lot of good things, and is the peak of positiveness in dealing with the events.

Almighty says (But perhaps you hate a thing and it is good for you; and perhaps you love a thing and it is bad for you. And Allah Knows, while you know not.)

[Baqarah: 216]

﴿وَأَسْتَيْبِرُوا وَهُوَ تَكْرِيرُهُ لَكُمْ وَعَسَى أَنْ تُحِبُّوا شَيْئًا وَهُوَ شَرٌّ لَكُمْ وَاللَّهُ يَعْلَمُ أُنُومًا لَا تَعْلَمُونَ﴾ [البقرة: 216].

The patients who fully trust their doctor will get much better results than the patients who do not trusts their doctor, and this is what the Quran has done, with only one difference that is that the doctor in the Quran is Allah Almighty!!!

**Thinking of the positive side and tolerance**

Many verses confirm this rule, Almighty says: (And not equal are the good deed and the bad. Repel [evil] by that [deed] which is better; and thereupon the one whom between you and him is enmity [will become] as though he was a devoted friend.) [Fussilat: 34]

﴿سَوَاءٌ أَلَا تُكْسِرُوا يَوْمَئِذٍ أَمْ تَكْسِرُونَ وَالَّذِينَ هُمْ عَنْ آلِهِمْ وَبَيْنَهُمْ عَاقِلَةٌ وَلِيٌّ حَمِيمٌ﴾ [فصلت: 34]

Look how God wants us to turn negative emotions into positive feelings.

**Full certainty that livelihoods is in God's hands** (And how many a creature carries not its [own] provision. Allah provides for it and for you. And He is the Hearing, the Knowing.) [Al-Ankabout: 60]. Because God is the one who will sustain me, I will no longer think a lot of the reasons.

The need to hang on hope and not to be despair is what the Quran told us about, but ordered us to do, and the irony is that the Quran made despair a disbelief !! So as to keep us away from any despair or loss of hope, and therefore Almighty says: (and do not despair of relief from Allah. Indeed, no one despairs of relief from Allah except the disbelieving people) [Yusuf: 87].

(وَلَا تَيْئَسُوا مِنْ رَوْحِ اللَّهِ إِنَّهُ لَا يَيْئَسُ مِنْ رَوْحِ اللَّهِ إِلَّا الْكَافِرُونَ) [يوسف: 87]  
Show joy and pleasure and you'll find joy slowly immersing you. Actually, the best case is when we surrender ourselves to our destiny and forget our worries and live in a state of meditation and spirituality, and this is what the Quran ordered us by saying Almighty: (And whoever submits his face to Allah while he is a doer of good - then he has grasped the most trustworthy handhold. And to Allah will be the outcome of [all] matters) [Luqman: 22]

جَاهَهُ إِلَى اللَّهِ يُوَلِّهِمْ وَّحُدُودَهُمْ فَقَدِرْ اسْتَمْسَكَ بِالْعُرْوَةِ الْوُثْقَىٰ وَإِلَى اللَّهِ عَاقِبَةُ الْأُمُورِ) [لقمان: 22]

### Patience

Look sister to those who are patient what will be their reward, the Almighty says: (And those who are patient, seeking the countenance of their Lord, and establish prayer and spend from what We have provided for them secretly and publicly and prevent evil with good - those will have the good consequence of [this] home - Gardens of perpetual residence; they will enter them with whoever were righteous among their fathers, their spouses and their descendants. And the angels will enter upon them from every gate, [saying], "Peace be upon you for what you patiently endured. And excellent is the final home.") [Thunder: 22-24].

ابْتِغَاؤُهُمْ وَالْحَيَاتِ رَبِّهِمْ وَوَأَقَامُوا الصَّلَاةَ وَآتَوُا الزَّكَاةَ سِرًّا وَنَجْوًا يُدْعُونَ بِالذِّكْرِ الْحَكِيمِ  
السَّيِّئَةِ أُولَٰئِكَ لَهُمْ عَذَابٌ أَلِيمٌ \* جَنَّاتٌ عَرْضُهَا السَّمَاوَاتُ وَالْأَرْضُ يُجْرِي فِيهَا مِنْ دُونِهَا نَهْرٌ مِمَّا صَدْرَتْ مِنْهُمُ الْوُجُوهُ وَالَّذِينَ كَفَرُوا لَهُمْ فِيهَا عَذَابٌ أَلِيمٌ \* وَالَّذِينَ كَفَرُوا لَهُمْ فِيهَا عَذَابٌ أَلِيمٌ \* وَالَّذِينَ كَفَرُوا لَهُمْ فِيهَا عَذَابٌ أَلِيمٌ \* وَالَّذِينَ كَفَرُوا لَهُمْ فِيهَا عَذَابٌ أَلِيمٌ \*  
عَلَيْهِمْ مِنْ كُلِّ بَابٍ \* سَلَامٌ عَلَيْهِمْ بِمَا صَبَرُوا فَمَنْ قَبِلَ عَذَابَ اللَّهِ فَسَاءَ صَاحِبُ الْمَقْدَرِ) [الرعد: 24-22]

Quran has given us the solution and that is patience, but patience for what and whom and what reward will we receive? Almighty says: (And the retribution for

an evil act is an evil one like it, but whoever pardons and makes reconciliation - his reward is [due] from Allah . Indeed, He does not like wrongdoers.) [Al-Shura: 40].

نَهْ سَدِيْنَةً (وَتَجْزِيْهَا الْجَمِيْنَ عَقَا وَاصْلِحْ فَاَجْرُهُ عَلٰى اللّٰهِ اِنَّهٗ لَا يُحِبُّ الظّٰلِمِيْنَ) [الشورى: 40]  
Is there a phrase more beautiful than this phrase: (God rewards)! Be sure that only God will compensate you, and what is wonderful in these verses is that God portrays us the result that we will get in advance, for example, Almighty says: (And will reward them for what they patiently endured [with] a garden [in Paradise] and silk [garments]) [Al-Ensan: 12]  
(وَجَزَا۟هُمْ صِيْبًا وَّجَنَّةً وَّحَرِيْرًا) [الإنسان: 12]

### Telling stories:

- Story of Moses and the infertile woman
- Story of the father or prophets, Abraham, peace be upon him  
Sarah, the wife of our Prophet Ibrahim, did not give birth but was patient until the good news came , the night of the destruction of the people of Prophet Lot, peace be upon him (the son of Prophet Ibrahim's sister, peace be upon him)
- Story of Prophet Zechariah who was conversing with God, submissive and humble, asking him righteous progeny, and did not give up despite his age...

Almighty says: (He said, "My Lord, indeed my bones have weakened, and my head has filled with white, and never have I been in my supplication to You, my Lord, unhappy) (Mariam:4)

(قال رب اني وهن العظم مني واشتعل الرأس شيبا ولم أكن بدعائك شعياً) (مريم:4)

Almighty says: (And [mention] Zechariah, when he called to his Lord, "My Lord, do not leave me alone [with no heir], while you are the best of inheritors.) (Al-Anbeya: 89)

(وزكريا إذ نادى ربه رب لا تذرني فردا وأنت خير الوارثين)(الأنبياء:89)

What was the result?

Almighty says: ([He was told], "O Zechariah, indeed We give you good tidings of a boy whose name will be John.....) (Mariam:7)

(يا زكريا إنا نبشرك بغلام اسمه يحيى... (مريم: 7)

Almighty says: (So We responded to him, and We gave to him John.....) (Al-Anbeya: 90)

(فاستجبنا له ووهبنا له يحيى...)(الأنبياء:90)

- Story of Asia, the wife of Pharaoh: " And Allah presents an example of those who believed: the wife of Pharaoh, when she said, "My Lord, build for me near You a house in Paradise and save me from Pharaoh and his deeds and save me from the wrongdoing people." (Al-Tahrim: 11)

ضَرَبَ اللَّهُ مَثَلًا لِّلَّذِينَ آمَنُوا امْرَأَتَ فِرْعَوْنَ إِذْ قَالَتْ رَبِّ ابْنِ لِي ذُرِّيَّتًا طَّيِّبَةً إِنِّي أَخَافُ أَن يُكَلِّمَهُنَّ الْكُفْرَانَ وَرَبِّ نَجِّنِي مِنَ الْكُفْرَانِ (التحریم: 11)

In the end, there was no one more patient than prophet Mohammed to his people in the propagation of Islam

### **The last session**

Ending the program and its schedule (concluding session)

Application of the post test

The researcher give the ladies the appointment for the application of the post ` post test

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## Annex6

### Gaza Strip:

The total area of Palestine is 6,020 sq. Km. with total population of about 3,762,005 individuals in 2005 with capita 625 per sq Km. Gaza strip is a narrow piece of land lying on the coast of the Mediterranean sea. Its position on the crossroads from Africa to Asia made it a target for occupiers and conquerors over the centuries.. The last of these was Israel who occupied the Gaza strip from Egyptians in 1967. Gaza Strip is very crowded place with area 365sq. Km and constitute 6.1% of total area of Palestinian territory land. In mid year of 2005 the population number is to be 1,389,789 mainly concentrated in the cities, small village, and eight refugee camps that contain two thirds of the population of Gaza Strip.

In Gaza Strip, the population density is 3,808 inhabitants/km<sup>2</sup> that comprises the following main five governorates:

#### **North of Gaza**

constituted of 17% of the total area of Gaza strip and 1.0% of total area of Palestinian territory area with area 61 sq. Km. The total number of population living in North Gaza is to be 265,932 individuals in 2005 with capita per sq Km 4,360.

#### **Gaza City**

constituted of 20.3% of the total areas of Gaza strip and 1.2% of total area of Palestinian territory area with area 74 sq. Km. The total number of population living in Gaza City is 487,904 individuals in 2005 with capita per sq Km 6,593.

#### **Mid-Zone**

constituted of about 15% of the total area of Gaza Strip and 1.0% of total area of Palestinian territory area with area 58 sq. Km The total number of population living in Mid-Zone is 201,112 individuals in 2005 with capita per sq Km 3,467.

#### **Khan younis**

constituted of 30.5% of the total area of Gaza strip and 1.8% of total area of Palestinian territory area with area 108 sq. Km. The total number of population in Khanyounis is 269,601 individuals in 2005 with capita per sq Km 2,496.

#### **Rafah**

constituted of 16.2% of the total area of Gaza strip and 1.1% of total area of Palestinian territory area with area 64 sq. Km. The total number of population in Rafah is 165,240 individuals in 2005 with capita per sq Km 2,582 (MOH, 2006)

## Annex 7

### Gaza infertility centers :-

- Alhalla center
  - Zeenat Alhiah center
  - Gana center
  - Allhelo center
  - Albanoon center
  - Qurat Aieen center
  - Assarage center
- 1.8.1 Allbasma infertillty cente

### Al Basma Fertilization Center

#### The Center and its origination

The idea of a fertilization and pregnancy assistance center began in 1983, when Dr. "Bahaa El Din Yusuf Ghalayini" joined training within the world's first team in Cambridge - Britain , which was operated by Dr. "Patrick Steptoe" and scientist, "Robert Edward", who discovered the IVF way for infertility treatment, in which the birth of "Luisa Brown, the first (tubes) child in history was due to their efforts. Thus, they built the first center in the world for this treatment and began planning for introducing this method to Palestine, which was achieved after important steps, arrangements and coordination with an international center, namely the Royal Hospital in south London in 1997.

Thus, "Basma fertilization Center" was established as the first center of its kind in Palestine, operated by Palestinian hands with the experience directly gained from the source that invented the method of fertilization outside the body (IVF). The center was managed by Bahaa El Din Yusuf Ghalayini and a crew of specialists such as obstetricians, anesthesiologists, embryos specialists, and a nursing, secretarial and managerial staff.



The center did not had enough with what it offers only, but the center was did the center has been constantly developed, new and sophisticated techniques has been introduced, and the staff number has been increased due to the successes that have been achieved over the past years.

**Project objectives: -**

- Helping the category destitute of natural reproduction by pipelines reproduction.
- Improving health services provided to the citizens in the area of reproductive health and the health of the fetus and the pregnant mother.
- Introducing advanced diagnostic and treatment medical services related to women's reproductive system, and which are not available in Gaza Strip and Palestine.
- Establishing a continuous education unit in the areas mentioned for the first time in the strip, in order to develop the capabilities of physicians through courses, training and supervision of consultants recruited from abroad.
- Reducing the economic pressures on patients by dispensing transfers abroad in the areas mentioned above, and through the provision of services at reasonable prices.

**Justification of the project: -**

- 1- Gaza Strip suffers from a severe shortage of advanced medical capabilities in several areas, especially Obstetrics, Gynecology, Fertility, Fetal Medicine and care for pregnant women and women's tumors, and this suffering increased with the increase in population and the blockade.
- 2- Fetal Medicine is a modern field or branch of the field of birth that deals with diseases of the fetus inside the uterus in the diagnosis and the medical and surgical treatment; it is one of the rapidly evolving branches that will have a very special attention toward its application in Gaza strip through this center.
- 3- Most women tumor diseases in the reproductive system and breasts suffer from a severe lack of diagnostic and therapeutic tools in Gaza, which requires early detection of tumor in the pre-disease stages , which is one of the greatest developments in the field of tumor diseases, where early detection of its existence before resurge. In this vast area, tumors of the uterus, cervix, ovaries and breasts can be detected before reaching nontherapeutic stage, in which modern and sophisticated capabilities, machines and experience of a private

group of British and other European consultants will be dedicated to this department.

- 4- Continuous Education, where newly graduated doctors suffer from a severe lack of guidance, training, courses, and communicating with new researches.
- 5- Video conferences will be held, dealing with American, British and Egyptian institutions and universities, to create these courses to ensure continuous education of new and old doctors in these areas.
- 6- laparoscopic surgery is developing quickly in a way that most abroad women surgeries are operated without opening the abdomen, which leads to fewer complications, less suffering , and less residence in the hospital for the patients, so consultants from within and from Britain will set up this service on a large scale and Palestinians specialists will be trained on these advanced surgeries.

## Annex 8

### LIST OF PANELLES

Name	Place of work
Dr Abed AL Fatah Alhums	Islamic university Faculty of Education
Dr Abed AL Kareem Rodwan	Islamic university Faculty of Nursing
Dr Ahmad Allhwagreed	Ministry of Education
Dr Attefe Alaga	Islamic university Faculty of Education
Dr Gameel Atahrwee	Islamic university Faculty of Education
DrHabeeb Allhwagreed	Ministry of health psychiatric hospital
Dr Mohammad Abu Alsebah	Ministry of health psychiatric hospital
Dr Nabil Dokan	Islamic university Faculty of Education
DrYoussef Algeesh	Islamic university Faculty of Nursing