Chapter I

Introduction

Anxiety is an emotion that predates the evolution of man. Children, adolescents and adults experience anxiety in different forms; while this is visible in some, it can be inferred in others from their physiological and psychological responses. Anxiety also varies in frequency and intensity in different persons, even in response to the same stimulus (Trivedi & Guptha, 2010). It is a generalized state of apprehension or foreboding. There is much to be anxious about. Our health, social relationships, examinations, careers and conditions of the environment are but a few sources of possible concerns. It is normal, and even adaptive, to be somewhat anxious about these aspects of life. Anxiety serves us when it prompts us to seek regular medical checkups or motivates us to study for tests. Anxiety is an appropriate response to threats, but it can be abnormal when its level is out of proportion to a threat. In extreme forms, anxiety can impair our daily functioning.

History and definition

Nearly a century ago, Sigmund Freud (1895) coined the term anxiety neurosis, which he believed resulted from dammed-up libido: a physiological increase in sexual tension leads to a corresponding increase in libido, the mental representation of physiological event. The normal outlet of such tension, in Freud’s view, is sexual intercourse; but
sexual practices such as abstinence and coitus interruptus prevent tension release and produce neuroses. The conditions of heightened anxiety related to libidinal blockage include neurasthenia, hypochondriasis, and anxiety neuroses, all of which were regarded by Freud as having a biological basis.

The word anxiety has as its root *angst*, German for fear. According to Hallam (1992) anxiety is a word used in every day conversation and refers to a complex relationship between a person and his situation. Anxiety is often a diffuse, unpleasant and uncomfortable feeling of apprehension, accompanied by one or more bodily sensations that characteristically recur in the same manner in the person. It is an alerting signal that warns an individual of imminent danger and enables him to take measures to deal with it. Anxiety and fear may exist simultaneously or follow each other. Anxiety or fear-arousing stimulus may be internal or external, immediate or future, definite or vague, and conflictual or non-conflictual in nature. One can, however, differentiate anxiety from fear, in that in fear no conflict is involved and the threat is known.

**Symptoms of anxiety**

Anxiety involves a variety of symptoms such as fear, distractibility, muscle tension, and restlessness. The following are the main symptoms of anxiety (DSM-IV-TR; APA, 2000).

- Mood symptoms: Mood symptoms in anxiety disorders consist primarily of anxiety, tension, panic, and apprehension. An
individual suffering from anxiety experiences a feeling of impending doom and disaster. Secondary mood symptoms caused by anxiety may include depression and irritability.

- Cognitive symptoms: Cognitive symptoms in anxiety disorders revolve around the doom- and- disaster scenarios anticipated by the individual. Because the individual’s attention is focused on potential disasters, the individual ignores the real problems at hand and is therefore inattentive and distractible. As a consequence, the individual often does not work or study effectively, which can increase his or her anxiety.

- Physical symptoms: The physical symptoms of anxiety can be divided into two groups. The first group consists of the immediate symptoms, including sweating, dry mouth, shallow breathing, rapid pulse, increased blood pressure, throbbing sensations in the head, and feelings of muscular tension. These symptoms reflect a high level of arousal of the autonomic nervous system. Other immediate symptoms include hyperventilation, light headedness, headache, tingling of the extremities, heart palpitations, chest pain, and breathlessness. If the anxiety is prolonged, the second group of symptoms may set in. These delayed symptoms include chronic headaches, muscular weakness, gastrointestinal distress, and cardiovascular disorders, including high blood pressure and heart attack. These symptoms
reflect the breakdown of the physiological systems caused by prolonged arousal.

- Motor symptoms: Because of the high level of arousal, anxious individuals often exhibit restlessness, fidgeting, pointless motor activity such as toe tapping, and exaggerated startle responses to sudden noise.

**Normal versus abnormal anxiety**

In many instances anxiety is a normal, adaptive, and positive response that motivates us and increases our productive efforts. There are three factors to consider when making a distinction between normal and abnormal anxiety (DSM-IV-TR; APA, 2000).

1. Level of the anxiety: In many situations some level of anxiety is appropriate, but if the anxiety goes above that level, it can be considered abnormal.

2. Justification for the anxiety: Anxiety for which there is not a realistic justification is considered abnormal.

3. Consequences of the anxiety: Anxiety that leads to negative consequences can be considered abnormal. In DSM IV anxiety is considered a symptom if it interferes significantly with the person’s normal routine, occupational/academic functioning, or social activities or relationships, or there is a marked distress about having the anxiety symptoms.
Types of anxiety disorders

The DSM IV-TR recognizes the following specific types of anxiety disorders: phobic disorders, such as specific phobia, social phobia and agoraphobia; panic disorder with agoraphobia and without agoraphobia; generalized anxiety disorder; obsessive compulsive disorder; and acute and posttraumatic stress disorder.

Prevalence of anxiety disorders

Anxiety disorders are one of the most prevalent of all psychiatric disorders in the general population. Simple phobia is the most common anxiety disorder, with up to 49 percent of people reporting an unreasonably strong fear and 25 percent of those people meeting the criteria for simple phobia. Social anxiety disorder is the next most common disorder of anxiety, with roughly 13 percent of people reporting symptoms that meet the DSM criteria. Post traumatic stress disorder, which is often unrecognized, afflicts approximately 7.8 percent of the overall population and 12 percent of women, in whom it is significantly more common. In victims of war trauma, post traumatic stress disorder prevalence reaches 20 percent. Surprisingly, disorders that are more commonly recognized have lower lifetime prevalence rates; generalized anxiety disorder and panic disorder, have lifetime prevalence rates of roughly 5 percent and 3.5 percent, respectively. Of the panic sufferers, up to 40 percent also meet the criteria for agoraphobia. Another often under diagnosed disorder, obsessive
compulsive disorder, is found in 2.5 percent of the population (Kessler, Demier, & Frank, 2005).

The female-to-male ratio for any lifetime anxiety disorder is 3:2. Most anxiety disorders begin in childhood, adolescence, and early adulthood. Separation anxiety is an anxiety disorder of childhood that often includes anxiety related to going to school. This disorder may be a precursor for adult anxiety disorders. Panic disorder demonstrates a bimodal age of onset in the age groups of 15-24 years and 45-54 years. The age of onset for obsessive compulsive disorder appears to be the mid 20s to early 30s. Most social phobias begin before the age of 20 years (median age at illness onset is 16 years.) Agoraphobia usually begins in late adolescence to early adulthood (median age at illness onset is 29 years.) In general, specific phobia appears earlier than social phobia or agoraphobia. The age of onset depends on the particular phobia. Most simple (specific) phobias develop during childhood (median age at illness onset is 15 years) and eventually disappear. Those that persist into adulthood rarely go away without treatment (Kessler, Demier, & Frank, 2005).
Diagnostic features of anxiety disorders (DSM IV-TR criteria)

Generalized anxiety disorder

A. Excessive anxiety about a number of events or activities, occurring more days than not, for at least six months.

B. The person finds it difficult to control the worry.

C. The anxiety and worry are associated with at least three of the following six symptoms (with at least some symptoms present for more days than not, for the past six months):

1) Restlessness or feeling keyed up or on edge

2) Being easily fatigued

3) Difficulty concentrating or mind going blank

4) Irritability

5) Muscle tension

6) Sleep disturbance

D. The focus of the anxiety and worry is not confined to features of an Axis I disorder, being embarrassed in public (as in social phobia), being contaminated (as in obsessive-compulsive disorder), being away from home or close relatives (as in separation anxiety disorder), gaining weight (as in anorexia nervosa), having multiple physical complaints (as in somatization disorder), or having a serious illness (as in hypochondriasis), and
the anxiety and worry do not occur exclusively during posttraumatic stress disorder.

E. The anxiety, worry, or physical symptoms cause clinically significant distress or impairment in social or occupational functioning.

F. The disturbance does not occur exclusively during a mood disorder, a psychotic disorder, pervasive developmental disorder, substance use, or general medical condition.

Specific phobia

A. Persistent fear that is excessive or unreasonable, cued by the presence or anticipation of a specific object or situation.

B. Exposure provokes immediate anxiety, which can take the form of a situationally predisposed panic attack.

C. Patients recognize that the fear is excessive or unreasonable.

D. Patients avoid the phobic situation or else endure it with intense anxiety or distress.

E. The distress in the feared situation interferes significantly with the person's normal routine, occupational functioning, or social activities or relationships.

F. In persons younger than 18 years, the duration is at least six months.

G. The fear is not better accounted for by another mental disorder.
Social phobia

A. A marked or persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or to possible scrutiny by others and feels he or she will act in an embarrassing manner.

B. Exposure to the feared social situation provokes anxiety, which can take the form of a panic attack.

C. The person recognizes that the fear is excessive or unreasonable.

D. The feared social or performance situations are avoided or are endured with distress.

E. The avoidance, anxious anticipation, or distress in the feared situation interferes significantly with the person's normal routine, occupational functioning, or social activities or relationships.

F. The condition is not better accounted for by another mental disorder, substance use, or general medical condition.

G. If a general medical condition or another mental disorder is present, the fear is unrelated to it.

H. The phobia may be considered generalized if fears include most social situations.

Agoraphobia

A. Fear of being in places or situations from which escape might be difficult (or embarrassing) or in which help might not be available in the event of having unexpected panic-like symptoms.
B. The situations are typically avoided or require the presence of a companion.

C. The condition is not better accounted for by another mental disorder.

**Panic attack**

A panic attack is a period of intense fear or discomfort, developing abruptly and peaking within 10 minutes, and requiring at least four of the following:

1. Chest pain or discomfort
2. Chills or hot flushes
3. Derealization (feelings of unreality) or depersonalization (being detached from oneself)
4. Fear of losing control
5. Feeling dizzy, unsteady, lightheaded, or faint
6. Feeling of choking
7. Nausea or abdominal distress
8. Palpitations or tachycardia
9. Paresthesias
10. Sensations of shortness of breath or smothering
11. Sense of impending doom
12. Sweating
13. Trembling or shaking
**Panic disorder**

A. Both (1) and (2):

1. Recurrent unexpected panic attacks.

2. At least one of the attacks has been followed by at least one month of one or more of the following:
   a) Persistent concern about having additional panic attacks
   b) Worry about the implications of the attack or its consequences
   c) A significant change in behavior related to the attacks

B. Presence or absence of agoraphobia.

C. The panic attacks are not due to the direct physiologic effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition (e.g., hyperthyroidism).

D. The panic attacks are not better accounted for by another mental disorder.

**Obsessive-compulsive disorder**

A. Either obsessions or compulsions:

   **Obsessions as defined by 1, 2, 3, and 4:**

1) Recurrent and persistent thoughts, impulses, or images that are experienced as intrusive and inappropriate, causing anxiety or distress.

2) The thoughts, impulses, or images are not simply excessive worries about real-life problems.

3) The person attempts to ignore or suppress such thoughts,
impulses, or images or to neutralize them with some other thought or action.

4) The person recognizes that the obsessional thoughts, impulses, or images are a product of his or her own mind.

*Compulsions as defined by 1 and 2:*

1) Repetitive behaviors or mental acts that the person feels driven to perform in response to an obsession or according to rules that must be applied rigidly.

2) The behaviors or mental acts are aimed at preventing or reducing distress or preventing some dreaded event or situation.

B. These behaviors or mental acts either are not connected in a realistic way with what they are designed to neutralize or prevent, or they are clearly excessive.

C. At some point during the course of the disorder, the person has recognized that the obsessions or compulsions are excessive or unreasonable.

D. The obsessions or compulsions cause marked distress, take up more than one hour a day, or significantly interfere with the person's normal routine, occupation, or usual social activities.

E. If another Axis I disorder, substance use, or general medical condition is present, the content of the obsessions or compulsions is not restricted to it.
Posttraumatic stress disorder

A. The person has been exposed to a traumatic event in which both of the following were present:

1) The person experienced, witnessed, or was confronted with an event that involved actual or threatened death or serious injury or a threat to the physical integrity of others.

2) The person's response involved intense fear, helplessness, or horror.

B. The traumatic event is persistently re-experienced in at least one of the following ways:

1) Recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions.

2) Recurrent distressing dreams of the event.

3) Acting or feeling as if the traumatic event was recurring, including a sense of reliving the experience, illusions, hallucinations, and flashback episodes.

4) Intense psychological distress at exposure to cues that symbolize an aspect of the traumatic event.

5) Physiologic reactivity on exposure to cues that symbolize or resemble an aspect of the traumatic event.

C. The person persistently avoids stimuli associated with the trauma and has numbing of general responsiveness including at least three of the following:
1) Efforts to avoid thoughts, feelings, or conversations associated with the trauma

2) Efforts to avoid activities, places, or people that arouse recollections of the trauma

3) Inability to recall an important aspect of the trauma

4) Markedly diminished interest or participation in significant activities

5) Feeling of detachment or estrangement from others

6) Restricted range of affect

D. Persistent symptoms of increased arousal are indicated by at least two of the following:

1) Difficulty falling or staying asleep

2) Irritability or outbursts of anger

3) Difficulty concentrating

4) Hypervigilance

5) Exaggerated startle response

E. Duration of the disturbance is more than one month.

F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

**Acute stress disorder**

A. The person has been exposed to a traumatic event in which both of the following were present:
1) The person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury

2) The person's response involved intense fear, helplessness, or horror

B. Either while experiencing or after experiencing the distressing event, the person has at least three of the following:

1) A subjective sense of numbing, detachment, or absence of emotional responsiveness

2) A reduction in awareness of his or her surroundings

3) Derealization

4) Depersonalization

5) Dissociative amnesia

C. The traumatic event is re-experienced in at least one of the following ways: recurrent images, thoughts, dreams, illusions, flashback episodes, or a sense of reliving the experience; or distress on exposure to reminders of the traumatic event.

D. The patient avoids the stimuli that arouse recollections of the trauma.

E. The patient has marked symptoms of anxiety or increased arousal.

F. The disturbance causes clinically significant distress or impairment in social or occupational areas of functioning, or
it impairs the person's ability to pursue some necessary task.

G. The disturbance lasts for a minimum of two days and a maximum of four weeks and occurs within four weeks of the traumatic event.

H. The disturbance is not better accounted for by brief psychotic disorder and is not merely an exacerbation of a preexisting Axis I or Axis II disorder, substance or general medical condition.

**Etiology of anxiety disorders**

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, including:

- stressful or traumatic life events
- a family history of anxiety disorders
- alcohol, medications or illicit substances
- other medical or psychiatric problems

**Biological factors**

The biological causes of anxiety disorders include problems with brain chemistry and brain activity; genetics; and medical, psychiatric and substance use issues.
Regulation of brain chemistry

Research has revealed a link between anxiety and problems with the regulation of various neurotransmitters—the brain’s chemical messengers that transmit signals between brain cells. Three major neurotransmitters are involved in anxiety: serotonin, norepinephrine and gamma-aminobutyric acid (GABA) (Lydiard, 2003).

Serotonin plays a role in the regulation of mood, aggression, impulses, sleep, appetite, body temperature and pain. A number of medications used to treat anxiety disorders raise the level of serotonin available to transmit messages.

Norepinephrine is involved in the fight or flight responses and in the regulation of sleep, mood and blood pressure. Acute stress increases the release of norepinephrine. In people with anxiety disorders, especially those with panic disorder, the system controlling the release of norepinephrine appears to be poorly regulated. Some medications help to stabilize the amount of norepinephrine available to transmit messages.

Gamma-aminobutyric acid plays a role in helping to induce relaxation and sleep, and in preventing over excitation. Medications known as benzodiazepines enhance the activity of GABA, producing a calming effect.
Genetic factors

Research confirms that genetic factors play a role in the development of anxiety disorders. People are more likely to have an anxiety disorder if they have a relative who also has an anxiety disorder. The incidence is highest in families of people with panic disorder, where almost half have at least one relative who also has the disorder (Hettema, 2005).

Substance use

Substance use may induce anxiety symptoms, either while the person is intoxicated or when the person is in withdrawal. The substances most often associated with generalized anxiety or panic symptoms are stimulants, including caffeine, illicit drugs such as cocaine, and prescription drugs such as methylphenidate (Hoehn-Sark, 2004).

Medical conditions

A range of medical conditions can cause anxiety symptoms and result in anxiety disorders (Hettema, 2005). For example, both panic and generalized anxiety symptoms can result from medical conditions, especially those of the glands, heart, lungs or brain. Most often, treatment of the medical condition reduces symptoms of anxiety.

Psychiatric conditions
People with other psychiatric disorders often also have symptoms of anxiety. Sometimes it is the symptoms of the other disorder, such as depression or psychosis that heighten a person’s anxiety. In such cases the person may not be diagnosed as having an anxiety disorder. People who are diagnosed with anxiety disorders may also have other psychiatric disorders; most often, these are other types of anxiety disorders, or substance use disorders or depression. Two out of three people with panic disorder will have a major depressive episode at some point in their lifetime. When depression occurs in someone with an anxiety disorder, it is of particular concern since these two problems in combination increase the person’s risk for suicide (Hoehn-Sark , 2004).

Psychological factors

The different schools of thought have emphasized different psychological factors in the etiology of anxiety disorders. The main schools of thought that attempt to explain the psychological influences on anxiety disorders are the psychodynamic, behavioral and cognitive theories. The ideas expressed by these theories help to understand the psychological correlates and treatment of anxiety disorders. Another way of looking at the psychological causes of anxiety is the state-trait theory, which seeks to understand the experience of anxiety. A brief examination of the main viewpoints of these different perspectives are given below.
Psychodynamic perspective

From the psychodynamic perspective, anxiety is a danger signal that threatening impulses of a sexual or aggressive nature are nearing the level of awareness. To fend off these threatening impulses, the ego tries to divert the tide by mobilizing its defense mechanisms (Freud, 1959). For example, with phobias, the defense mechanisms of projection and displacement come into play. A phobic reaction is believed to involve the projection of the person’s own threatening impulses onto the phobic object.

In generalized anxiety disorder, unconscious conflicts remain hidden, but anxiety leaks to the level of awareness. The person is unable to account for the anxiety because its source remains shrouded in the unconscious. In panic disorder, unacceptable sexual or aggressive impulses approach the boundaries of consciousness and the ego strives desperately to repress them, generating high levels of conflict that bring on a fully fledged panic attack. Panic dissipates when the impulse has been safely repressed.

Obsessions are believed to represent the leakage of unconscious impulses into consciousness, and compulsions are acts that help keep these impulses repressed. Obsessive thoughts about contamination by dirt or germs may represent the threatened emergence of unconscious infantile wishes to soil oneself and play with feces. The
compulsions help keep such wishes at bay or partly repressed (Freud, 1959).

The psychodynamic model remains largely speculative, in large part because of the difficulty of arranging scientific tests to determine the existence of the unconscious impulses and conflicts believed to lie at the root of these disorders.

**Behavioral perspective**

From the behavioral perspective, anxiety is acquired through the process of learning, specifically conditioning and observational learning. According to Hobart Mowrer’s (1948) classic two-factor model, both classical and operant conditioning are involved in the development of phobias. The fear component of phobia is believed to be acquired by classical conditioning. It is assumed that previously neutral objects and situations gain the capacity to evoke fear by being paired with noxious or aversive stimuli. Evidence shows that many cases of acrophobia, claustrophobia, blood phobia and injection phobias involve earlier pairings of the phobic object with aversive experiences (Kendler, 1992). As Mowrer pointed out, the avoidance component of phobias is acquired and maintained by operant conditioning. That is, relief from anxiety negatively reinforces avoiding fear-inducing stimuli.

The development of panic disorder may represent a form of classical conditioning (Bouton, Mineka, & Barlow, 2001). Learning
theorists have also noted the role of observational learning in acquiring fears. Modeling (observing parents or others reacting fearfully to a stimulus) and receiving negative information (hearing from others or reading that a particular stimulus -spiders for example- are fearful or disgusting) may also lead to phobias (Merikangas, 1996).

Some investigators suggest that people may be genetically prepared to more readily acquire phobic responses to certain classes of stimuli, such as snakes or larger animals than others (Seligman & Rosenhan, 1984). This model, called prepared conditioning, suggests that evolution would have favored the survival of human ancestors who were genetically predisposed to acquire fears of threatening objects, such as large animals, snakes, and other creepy-crawlers, heights, enclosed spaces, and even strangers.

Post traumatic stress disorder (PTSD) may also be explained from a conditioning framework. From a classical conditioning perspective, traumatic experiences function as unconditioned stimuli that become paired with neutral (conditioned) stimuli such as the sights, sound, and smells associated with the trauma or scene – for example, the battlefield or the neighborhood in which a person has been raped or assaulted (Foy, 1999). Subsequent exposure to similar stimuli evokes the anxiety (a conditioned emotional response) associated with post traumatic stress disorder.
From the learning perspective, generalized anxiety is precisely a product of stimulus generalization. People concerned about broad life themes, such as finances, health and family matters, are likely to experience their apprehensions in a variety of settings. Anxiety would thus become connected with almost any environment or situation. Similarly, agoraphobia would represent a kind of generalized anxiety. Anxiety would become triggered by cues associated with various social or vocational situations outside of the home in which the individual is expected to perform independently, as in travelling, going to work, and shopping. Panic attacks are also triggered by cues that are subtle and not readily identified.

From the learning perspective, compulsive behaviors are operant responses that are negatively reinforced by relief of the anxiety engendered by obsessional thoughts. Phobias such as social phobias and agoraphobia involve cognitive processes usually related to an exaggerated appraisal of threat in social situations (excessive fears of embarrassment or criticism) or public places (perception of helplessness or fears of panic attack) (Steketee & Foa, 1985).

_Cognitive perspective_

The focus of the cognitive perspective is on the role that distorted or dysfunctional ways of thinking may play in the development of anxiety disorders. The following are several styles of thinking that
investigators have linked to anxiety disorders (Marks & De Silva, 1994).

*Over prediction of fear:* People with anxiety disorders often over predict how much fear or anxiety they will experience in anxiety-evoking situations (Rachman, 1994). Typically speaking, the actual fear or pain experienced during exposure to the phobic stimulus is a good deal less than what people had expected. Yet the tendency to expect the worst encourages avoidance of feared situations, which in turn, prevents the individual from learning to manage and overcome anxiety (Rachman & Bichard, 1988).

*Self-defeating or irrational beliefs:* Self-defeating thoughts can heighten and perpetuate anxiety and phobic disorders. When faced with fear-evoking stimuli, the person may think, “I have got to get out of here”, or “My heart is going to leap out of my chest” (Meichenbaum & Deffenbacher, 1988). Thoughts like these intensify autonomic arousal, disrupt planning, magnify the aversiveness of stimuli, prompt avoidance behavior, and decrease self-efficacy expectancies concerning one’s ability to control the situation. People with phobias also tend to hold more of the sorts of irrational beliefs than nonfearful people do (Ellis, 1996). Cognitive theorists relate obsessive compulsive disorder to tendencies to exaggerate the risk of unfortunate events occurring (Bouchard, Rheaume & Ladouceur, 1999). Because they expect terrible things to happen, people with obsessive compulsive disorder engage in...
rituals to prevent them. Another cognitive factor linked to the
development of obsessive compulsive disorder is perfectionism, or
belief that one must perform flawlessly (Shafran & Mansell, 2001).

_Oversensitivity to threat_: An oversensitivity to threat is a cardinal
feature of anxiety disorders. People with phobias perceive danger in
situations that most people consider safe, such as riding on elevators or
driving over bridges. We all possess an internal alarm system that is
sensitive to cues of threat. This system may have had evolutionary
advantages to ancestral humans by increasing the chances of survival in
a hostile environment (Beck & Clark, 1997). The emotion of fear is a key
element in this alarm system and may have motivated our ancestors to
take defensive action, which in turn, may have helped them survive.
People who have anxiety disorders may have inherited acutely sensitive
internal alarms that lead them to be overly responsive to cues of threat.
Rather than helping them cope effectively with threats, it may lead to
inappropriate anxiety reactions in response to a wide range of cues that
actually pose no danger to them.

_Anxiety sensitivity_: It is usually defined as a fear of anxiety and anxiety
related symptoms (Zinbarg, 2001). People with high levels of anxiety
sensitivity have a fear of fear itself. They fear their emotions or
associated bodily states of arousal will get out of control, leading to
harmful consequences, such as having a heart attack (Williams,
Chambless, & Ahrens, 1997). Anxiety sensitivity is an important risk factor for anxiety disorders, especially panic disorder.

Schemas and cognitive distortions: Cognitive therapist Beck (1967) view individual beliefs as beginning in early childhood and developing throughout life. Early childhood experiences lead to basic beliefs about oneself and one’s world. Normally, individuals experience support and love from parents, which lead to beliefs such as I am lovable and I am competent which, in turn, lead to positive view of themselves in adulthood. Persons who develop psychological dysfunctions, in contrast to those with healthy functioning, have negative experiences in their lives that may lead to beliefs such as I am unlovable and inadequate. These developmental experiences, along with critical incidents or traumatic experiences influence individuals’ belief system. Negative experiences, may lead to conditional beliefs. Such beliefs may become basic to the individual as negative cognitive schemas. How individuals think about their world and their important beliefs and assumptions about people, events and the environment constitute cognitive schemas. Schemas can be positive (adaptive) and negative (maladaptive). According to Beck and Weissman (1974) schemas develop early in life from personal experiences and interactions with others. Some of the schemas are associated with cognitive vulnerability or predisposition to psychological distress.
An individual’s important beliefs or schemas are subject to cognitive distortion. Because schemas often start in childhood, the thought processes that support schemas may reflect early errors in reasoning. Cognitive distortions appear when information processing is inaccurate or ineffective. In assessing the cognitive distortions that anxious individuals experience, Freeman (1990) noted that catastrophizing, personalization, magnification and minimization, selective abstraction, arbitrary inferences, and over generalization are common in anxious clients.

According to Clark’s theory (1988), individuals who experience recurrent panic attacks have a relatively enduring tendency to interpret certain bodily sensations in a catastrophic fashion. The misinterpreted sensations are basically those involved in normal anxiety responses (e.g., palpitations, breathlessness, dizziness, paresthesias). The catastrophic misinterpretations involve perceiving these sensations as much more dangerous as they really are, and, in particular, interpreting the sensations as indicative of an immediately impending physical or mental disaster. Examples include perceiving a slight feeling of breathlessness as evidence of impending cessation of breathing and consequent death, perceiving palpitations as evidence of an impending heart attack, perceiving a pulsing sensation in the forehead as evidence of a brain haemorrhage, or perceiving a shaky feeling as evidence of impending loss of control and insanity (Clark, 1988). If these anxiety-
produced sensations are interpreted in a catastrophic fashion, a further increase in apprehension occurs, producing more bodily sensations, leading to a vicious circle that culminates in a panic attack. This theory accounts both for panic attacks preceded by raised anxiety and for panic attacks coming out of the blue. When applying the cognitive theory to individual patients, it is often useful to distinguish between the first panic attack and the subsequent development of repeated panic attacks and panic disorder.

Barlow (1988) described panic as the basic emotion of fear, which is considered to be an acute reaction to perceived imminent danger when no danger is present (Barlow, 1988; 1991). He identified three types of alarm: true alarms (immediate danger present), false alarms (panic attacks) and learned alarms (conditioned panic attacks). Barlow’s model of panic disorder includes a biological diathesis (propensity to experience arousal under stress) and a psychological vulnerability (influenced by factors such as early life events and parenting style). Psychologically vulnerable individuals fail to develop a sense of competence with respect to the world and themselves, and experience poor predictability and control over life events, such as intense emotional states. For biologically and psychologically vulnerable individuals, an initial false alarm may be followed by arousal and self-focused attention (anxious apprehension) centering on the possibility of experiencing further panic attacks and the belief that the
attacks are dangerous. In addition, internal somatic or cognitive cues and sensations can become associated with the experience of false alarm (interoceptive conditioning), so that the experience of somatic symptoms triggers a panic attack. Such interoceptive-cued attacks are supposed to be learned alarms. Interoceptive sensitivity and anxious apprehension may contribute to avoidance of activities and situations associated with somatic sensations and cues. The avoidance then becomes negatively reinforced, since the individual believes that an attack has been averted owing to escape or avoidance.

According to the anxiety sensitivity theory (Reiss & McNally, 1986), panic attack is characterized by a belief that, beyond any immediate physical discomfort, anxiety and its associated symptoms may cause deleterious physical, psychological or social consequences. Anxiety sensitivity differs from interoceptive conditioning in that the former does not refer to a conditioned response pattern to physical sensations, but to the individual’s belief that the anxiety symptoms are harmful; thus conditioning is not necessary for anxiety sensitivity. Anxiety sensitivity is also distinguished from catastrophic misinterpretations of anxiety. Although individuals with panic disorder may be inclined to make such misinterpretations, they may be fully aware of the causes of their sensations, and still hold an inherent belief that the sensations alone are dangerous (McNally, 1994).

Cognitive theories of emotional disorders posit that maladaptive
Anxiety disorders in particular are believed to result from distorted beliefs focused on physical or psychological threat and an increased sense of personal vulnerability (Beck, Emery, & Greenberg, 1985). For example, individuals with social phobia often overestimate the probability that others are evaluating them negatively, whereas those with panic disorder misinterpret benign body sensations (e.g., heart palpitations) as signals of an impending catastrophe (heart attack). Accordingly, cognitive treatment helps patients identify and correct these distorted cognitions to reduce their fear.

**Trait – State theory of anxiety**

In 1966, Spielberger suggested that conceptual anxiety could be introduced to multifaceted definitions of anxiety by distinguishing trait anxiety from state. Anxiety does not occur as a single phenomenon; its various forms of manifestation can be categorized under the two different headings of trait anxiety and state anxiety. According to the state-trait-anxiety model, the individual proneness for acute (state) anxiety reactions is in part depending on the level of trait-anxiety (Lazarus, 1991; Spielberger, 1972; Spielberger, Laux, Glanzmann, & Schaffner, 1981). That means there should be a certain relation between trait-anxiety and specific types of stimulus-related state-anxiety. Trait anxiety is a relatively stable aspect of personality. In their
behavior, individuals with anxiety traits will tend to have an attitude reflecting their perception of certain environmental stimuli and situations as dangerous or threatening. In practice, the anxious perceptive style of these persons will eventually become pervasive, extending to and influencing other areas of experience, and in effect finally becoming a characteristic of the personality. Those who show a more developed anxiety trait are much prone to reacting to a large number and variety of stimuli, and tend to worry in situations which for most individuals would not represent a source of threat. These individuals are more likely to present state anxiety in circumstances with low anxiety generating potential such as normal day-to-day activities, and will probably experience high levels of state anxiety in the presence of anxiety-generating stimuli.

State anxiety manifests itself as an interruption of an individual’s emotional state, leading to a sudden subversion of one’s emotional equilibrium. A person experiencing state anxiety will feel tension or worry, or might enter a state of restlessness. In such moments, the individual may feel very tense and easily react or over-react to external stimuli. State anxiety involves activation of the autonomous nervous system and the consequent triggering of a series of physiological reactions and conditions. High levels of state anxiety are particularly unpleasant, disturbing and can even be painful to the point of inducing the person to engage in adaptive behavior aimed at ending these
sensations. However, these adaptive reactions may not be successful in attaining their goal and other behavior patterns may become manifest-this time of the maladaptive type - which can result in the opposite effect: a further increase of anxiety, which can trigger a pathological vicious circle (Beck, Emery & Greenberg, 1985).

**Need and Significance of Research on Anxiety**

There is ample evidence concerning the burden of anxiety disorders. Anxiety disorder clinicians realize the personal distress of those suffering with panic attacks, severe phobias or obsessive-compulsive disorders, not to mention people living with stigmas of traumatic experiences. In addition to psychic pain, pathological anxiety severely affects the patient’s existence, causing a state of dependence which most often starts in early adulthood and has long-standing consequences, disrupting both family life and professional career. Anxiety disorders, in particular panic attacks, go along with various autonomic disturbances that trigger physical complaints. Therefore, when not properly recognized, anxiety syndromes often induce useless and sometimes expensive complementary problems, adding unnecessary strain for the patient and costs for the health care system. Moreover, there is accumulating evidence that an anxiety disorder, when left untreated, may worsen the prognosis of a coexisting somatic condition. This has been clearly demonstrated in the case of cardiac diseases (Chandrashekhar & Reddy, 1998) and certainly holds true in many other
instances. Overall, anxiety disorders represent an impressive burden of individual suffering, social impairment and economic costs (Trivedi & Gupta, 2010).

Last few decades have witnessed an exponential growth of knowledge in the field of affective disorders, in particular anxiety. Meta-analysis of 13 psychiatric epidemiological studies with a total sample size of 33,572 subjects (Reddy & Chandrashekher, 1998) yielded an estimated prevalence rate of 20.7 percent for all neurotic disorders and it was reported to be the highest among all psychiatric disorders. The weighted prevalence rates of different anxiety disorders were 4.2 percent for Phobia, 5.8 percent for Generalized Anxiety Disorder, 3.1 percent for Obsession and 4.5 percent for Hysteria. This meta-analysis also reported that prevalence rates of all neurotic disorders except hysteria (5.0% vs. 3.4%, $P<0.5$) were significantly higher (35.7% vs. 13.9%, $P<0.01$) in urban communities than rural, and all neurotic disorders were significantly higher among females than males (32.2% vs. 9.7%, $P<0.01$).

Anxiety disorders have a high impact on daily life (illness intrusiveness) and cause a great deal of suffering for the individual patient (Antony, 1998). Anxiety disorders are by far the most common psychiatric disorders (25%), followed by major depression (17%). Lifetime prevalence rates for all anxiety disorders are 19.2 percent for men, and 30.5 percent for women (Kessler, 1994).
Another important aspect of anxiety disorders is the issue of co-morbidity. Co-morbidity between disorders quite dramatically complicates the interpretation of many studies (Regier, 1998). Even apart from the considerable co-morbidity figures between anxiety disorders themselves (especially panic disorder, social phobia, and obsessive compulsive disorder), co-morbidity rates between anxiety disorders and depressive disorders are very high ranging from 30 percent for co-existing in time to 60 percent lifetime. Individuals with anxiety disorders and co-morbid depression have more chronic and severe anxiety symptoms, are more impaired, and are at greater risk for suicide, than those without depression (De Graaf, 2004). Co-morbidity rates between generalized anxiety disorder (GAD), post-traumatic stress disorder (PTSD), and other psychiatric disorders are even higher; about 80 percent for generalized anxiety disorders and 90 percent for post traumatic stress disorders.

Epidemiological studies revealed that there is a substantial co-morbidity between several medical conditions (e.g., cardiac, pulmonary, cerebrovascular, gastrointestinal, diabetes, and dermatological diseases) and anxiety disorders, especially panic disorder, generalized anxiety disorder, and agoraphobia (Stoudemire, 1996).

The status of research on anxiety disorders in India in relation to etiology, phenomenology, course, psychological correlates, outcome and management is rather poor. The role of state-trait anxiety, cognitive
distortions, early maladaptive schemas and other psychological variables are not explored adequately. This lag in anxiety research warrants research on anxiety disorders in our culture, especially at this age of anxiety and apprehension.

**Significance of the Present Study**

Anxiety is a normal human emotion. But in excess, anxiety destabilizes the individual. Anxiety is considered excessive or pathological when it arises in the absence of challenge or stress, when it is out of proportion to the challenge or stress in duration or severity, when it results in significant distress, and when it results in psychological, social, occupational, biological or other impairments. Anxiety encompasses behavioral, affective and cognitive responses to the perception of danger. Anxiety disorders are basically related to stress, reaction to stress (usually maladaptive) and individual proneness to anxiety. In this way the psychological and social factors can affect the epidemiology, phenomenology as well as treatment outcomes of psychiatric illness especially anxiety disorders.

We all have experienced significant anxiety at one time or another, although perhaps not severe enough to warrant a diagnosis by a professional. Anxiety is a danger or an alert signal; we experience physiological arousal as anxiety is directly related to fear or harm. When we are faced with a threat to our physical well-being that can result in
either serious physical harm or death, we respond psychologically and physically. This response has been called the "fight or flight" response because it activates us to either defend ourselves (fight), or to run away and escape injury (flight). In a life threatening crisis, this fight or flight response can save our lives (Bartlett, 1932).

Anxiety disorders have effects on our health and on our personal, social, and job life. People with panic disorder are more likely to have hypertension, peptic ulcer, diabetes, angina or thyroid disease. In fact, men who have anxiety disorders are also at greater risks for cardiac disorders, hypertension, gastrointestinal disorders, respiratory illness, asthma, and back pain. Women with anxiety disorders are more likely to have a history of cardiac problems, hypertension, arthritis, and metabolic, gastrointestinal, dermatological, and respiratory disorders (Taylor, 2011).

In general, the factors which cause anxiety are increasing day-by-day. An average high school kid today has the same level of anxiety as an average psychiatric patient had in the 1950s. Psychologists have examined the possible reasons for this increase over the last five decades. Some of the reasons may be a decrease in “social connectedness” - people tend to move more, change jobs, participate less in civic organizations, and are less likely to participate in religious activities. People are far less likely to get married, more likely to delay
getting married, and more likely to live alone. All of these factors can contribute to worry, uncertainty, anxiety and depression (Taylor, 2011).

Individual expectations also have changed in the last five decades. People expect to have a more affluent life-style, are driven by unrealistic ideas of what they need, and have unrealistic ideas about relationships and appearance. Advances in technology and the consequent innovations in media have reduced the world into a global village and the happenings all over the world are before us instantly. Bad news sells and reminds us that we can also be in danger. Even though we live longer, have better health care, travel is safer, and is richer, we now think that there is a disaster on the horizon. Because we are constantly bombarded with bad news, we think that we are in greater danger. We may not be in real danger but it is what we think that counts in the way we feel.

In modern societies, human beings are gradually becoming more uncompromising and egoistic resulting in unsuccessful marital and social relationships. Such situations adversely affect the young generation in the family and they feel absolutely insecure and left out. Such kinds of social problems may greatly affect the progressive attitude of the future generation. The research on anxiety disorders has consistently revealed the fact that anxiety disorders are unceasing, relentless and can even grow worse if not properly treated.
Developments in epidemiology and psychology have significantly advanced our understanding of anxiety disorders in recent years. Advances in pharmacotherapy and psychotherapy for these disorders have brought realistic hope for relief of symptoms and improvement in the functioning of patients (Trivedi & Gupta, 2010).

Even though large number of studies have been conducted in the area of anxiety disorders, most of these studies have been done in western countries. Moreover, comparatively few empirical studies have been made on the psychosocial correlates of anxiety disorders including, state-trait anxiety, early maladaptive schema, and dysfunctional attitudes especially in the Indian context. The significance of the present study is in the understanding of how best to treat anxiety with cognitive and behavioral therapies. Cognitive therapies focus on getting clients to understand their underlying schemas, automatic thoughts, which often involve cognitive distortions such as unrealistic predictions of catastrophes that in reality are very unlikely to occur. Once clients can identify these schemas, automatic thoughts, and cognitive distortions, therapies focusing on helping them change these inner thoughts and beliefs through a process of logical reanalysis known as cognitive restructuring can be developed. The present study corroborating upon cognitive and strait-trait perspective, and focusing on the psychological correlates of anxiety disorders is expected to contribute to the existing knowledge which may enrich the investigators working with anxiety
disorders, especially counselors and cognitive behavior therapists. This study is expected to yield more information about state-trait anxiety, co-morbid depression, early maladaptive schemas, cognitive distortions and other psychosocial variables related to anxiety disorders. It is hoped that the findings may suggest means to foster and expand the techniques in cognitive behavior therapy that will be applicable to treat anxiety patients. The problem for the present study is stated as “Psychological Correlates of Anxiety Disorders”.

Objectives

The main objectives of the present study are:

1. To examine whether there are significant differences among the different clinical groups of anxiety patients in clinical anxiety, co-morbid depression, different dimensions of state-trait anxiety, different dimensions of early maladaptive schema, and dysfunctional attitudes.

2. To examine whether there are significant differences between the clinical group and the non-clinical matched group (normal control group) in clinical anxiety, co-morbid depression, different dimensions of state-trait anxiety, different dimensions of early maladaptive schema, and dysfunctional attitudes.

3. To examine whether there are significant differences between the male and the female anxiety patients in clinical anxiety, co-
morbid depression, different dimensions of state-trait anxiety, different dimensions of early maladaptive schema, and dysfunctional attitudes.

4. To examine whether there are significant differences among the different age groups of anxiety patients in clinical anxiety, co-morbid depression, different dimensions of state-trait anxiety, different dimensions of early maladaptive schema, and dysfunctional attitudes.

5. To examine whether there are significant differences among the different groups of anxiety patients based on income in clinical anxiety, co-morbid depression, different dimensions of state-trait anxiety, different dimensions of early maladaptive schema, and dysfunctional attitudes.

6. To examine whether there are significant differences among the different groups of anxiety patients based on birth order in clinical anxiety, co-morbid depression, different dimensions of state-trait anxiety, different dimensions of early maladaptive schema, and dysfunctional attitudes.

7. To examine whether there are significant differences among the different groups of anxiety patients based on education level in clinical anxiety, co-morbid depression, different dimensions of state-trait anxiety, different dimensions of early maladaptive schema, and dysfunctional attitudes.
8. To examine whether there are significant differences among the different groups of anxiety patients based on marital status in clinical anxiety, co-morbid depression, different dimensions of state-trait anxiety, different dimensions of early maladaptive schema, and dysfunctional attitudes.

9. To examine whether there are significant differences between the two groups of anxiety patients based on family history of mental illness in clinical anxiety, co-morbid depression, different dimensions of state-trait anxiety, different dimensions of early maladaptive schema, and dysfunctional attitudes.

10. To examine whether there are significant differences between the two groups of anxiety patients based on stressful life events in clinical anxiety, co-morbid depression, different dimensions of state-trait anxiety, different dimensions of early maladaptive schema, and dysfunctional attitudes.

11. To find out whether there are significant main and interaction effects of different levels of co-morbid depression and early maladaptive schema on clinical anxiety, state anxiety, and trait anxiety.

12. To find out whether there are significant main and interaction effects of different levels of co-morbid depression and dysfunctional attitudes on clinical anxiety, state anxiety, and trait anxiety.
13. To find out whether there are significant main and interaction effects of different levels of early maladaptive schema and dysfunctional attitudes on clinical anxiety, state anxiety, and trait anxiety.

14. To examine the nature and the extent of the correlations among clinical anxiety, co-morbid depression, different dimensions of state-trait anxiety, dimensions of early maladaptive schema and dysfunctional attitudes in the anxiety patients.

15. To identify the variables which can predict clinical anxiety.

16. To identify the variables which can predict trait anxiety.

17. To identify the variables which can predict state anxiety.

**Hypotheses**

Pursuant to the above objectives, the following hypotheses were formulated for the study.

1. There will be significant differences among the different groups of anxiety patients in clinical anxiety, co-morbid depression, different dimensions of state-trait anxiety, different dimensions of early maladaptive schema, and dysfunctional attitudes.

2. There will be significant differences between the clinical group and the non-clinical matched group (normal control group) in clinical anxiety, co-morbid depression, different dimensions of state-trait anxiety, different dimensions of early maladaptive schema, and dysfunctional attitudes.
3. There will be significant differences between the male and the female anxiety patients in clinical anxiety, co-morbid depression, different dimensions of state-trait anxiety, different dimensions of early maladaptive schema, and dysfunctional attitudes.

4. There will be significant differences among the different age groups of anxiety patients in clinical anxiety, co-morbid depression, different dimensions of state-trait anxiety, different dimensions of early maladaptive schema, and dysfunctional attitudes.

5. There will be significant differences among the different income groups of anxiety patients in clinical anxiety, co-morbid depression, different dimensions of state-trait anxiety, different dimensions of early maladaptive schema, and dysfunctional attitudes.

6. There will be significant differences among the first born, the middle born and the last born anxiety patients in clinical anxiety, co-morbid depression, different dimensions of state-trait anxiety, different dimensions of early maladaptive schema and dysfunctional attitudes.

7. There will be significant differences among the anxiety patients belonging to different educational levels in clinical anxiety, co-morbid depression, different dimensions of state-trait anxiety, different dimensions of early maladaptive schema, and
dysfunctional attitudes.

8. There will be significant differences among the anxiety patients belonging to different marital status groups in clinical anxiety, co-morbid depression, different dimensions of state-trait anxiety, different dimensions of early maladaptive schema, and dysfunctional attitudes.

9. There will be significant differences between the two groups of anxiety patients based on family history of mental illness in clinical anxiety, co-morbid depression, different dimensions of state-trait anxiety, different dimensions of early maladaptive schema, and dysfunctional attitudes.

10. There will be significant differences between the two groups of anxiety patients based on stressful life events in clinical anxiety, co-morbid depression, different dimensions of state-trait anxiety, different dimensions of early maladaptive schema, and dysfunctional attitudes.

11. There will be significant main and interaction effects of different levels of co-morbid depression and early maladaptive schema on clinical anxiety, state anxiety, and trait anxiety.

12. There will be significant main and interaction effects of different levels of co-morbid depression and dysfunctional attitudes on clinical anxiety, state anxiety, and trait anxiety.

13. There will be significant main and interaction effects of different
levels of early maladaptive schema and different levels of dysfunctional attitudes on clinical anxiety, state anxiety, and trait anxiety.

14. There will be significant positive correlations among clinical anxiety, co-morbid depression, different dimensions of state-trait anxiety, different dimensions of early maladaptive schema, and dysfunctional attitudes in the anxiety patients.

15. Clinical anxiety will be predicted by co-morbid depression, different dimensions of state-trait anxiety, early maladaptive schema, and dysfunctional attitudes.

16. Trait anxiety will be predicted by co-morbid depression, different dimensions of state-trait anxiety, early maladaptive schema, and dysfunctional attitudes.

17. State anxiety will be predicted by co-morbid depression, different dimensions of state-trait anxiety, early maladaptive schema, and dysfunctional attitudes.

Definition of key terms

Anxiety

Anxiety is defined as a diffuse, unpleasant, and vague sense of apprehension, often accompanied by autonomic symptoms, such as headache, perspiration, palpitations, tightness in the chest, mild stomach discomfort, and restlessness as indicated by an inability to sit or stand still for long (Hallam, 1992).
In the present study, anxiety means clinical anxiety as measured by the Beck Anxiety Inventory. It mainly measures the cognitive and somatic components of anxiety. The cognitive subscale provides a measure of fearful thoughts and impaired cognitive functioning, and the somatic subscale provides a measure of the symptoms of physiological arousal (Beck, 1993).

**Anxiety disorders**

Anxiety disorders are often debilitating chronic conditions, which can be present from an early age or begin suddenly after a triggering event. They are prone to flare up at times of high stress and are frequently accompanied by physiological symptoms such as headache, sweating, muscle spasms, palpitations, and hypertension, which in some cases lead to fatigue or even exhaustion. DSM-IV-TR lists the following anxiety disorders: phobic disorders of the specific or of the social type, panic disorders with or without agoraphobia, generalized anxiety disorder, obsessive-compulsive disorder, post-traumatic stress disorder and acute stress disorder.

In the present study the severity of clinical anxiety is measured using the Beck Anxiety inventory.

**Co-morbid depression**

Co-morbidity refers to the presence of more than one disorder in the same person. Studies suggest that co-morbidity among anxiety and
depressive disorders is quite common and clinically significant (Kessler, 1995). There are a number of symptoms that are common to both anxiety and depression. However, there are also a number of symptoms that are not common. Common symptoms include sleep disturbances and alterations in appetite and libido. On the other hand, symptoms that help differentiate the two conditions include hypervigilance, which is characteristic of anxiety, and anhedonia or low mood symptoms, which are found in patients with depression. These differences in symptoms suggest that anxiety disorders and depression are distinct diagnostic entities (DSM-IV-TR).

In the present study the severity of co-morbid depression is measured using the Beck Depression Inventory.

**Trait anxiety and state anxiety**

Trait anxiety is defined as the tendency to experience anxiety. It is considered to be a characteristic of personality that endures over time and manifest across a variety of situations. Trait anxiety is contrasted to state anxiety, which is the temporary, uncomfortable experience that occurs when a person feels threatened by a situation. Trait anxiety is the potential, or tendency to experience state anxiety (Spielberger, 1968).

In the present study state anxiety has been defined as an unpleasant emotional response while coping with threatening or dangerous situations (Spielberger, 1983), which includes cognitive appraisal of
threat as a precursor for its appearance (Lazarus, 1991). Trait anxiety refers to stable individual differences in a tendency to respond with an increase in state anxiety while anticipating a threatening situation. Spielberger (1999) characterized trait anxiety as a general disposition to experience transient states of anxiety, suggesting that these two constructs are inter-related.

**Schema**

The term schema is used in psychology to refer to a mental framework that allows an individual to make sense of aspects of the environment. Schemas are extremely stable and enduring patterns, comprising of memories, bodily sensations, emotions, cognitions and once activated, intense emotions are felt (Piaget, 1928).

In this study schema is explained in terms of early maladaptive schema, which has been defined by Jeffrey Young (1993) as ‘a broad pervasive theme or pattern regarding oneself and one's relationship with others, developed during childhood and elaborated throughout one's lifetime, and dysfunctional to a significant degree’. It is measured using the Early Maladaptive Schema Questionnaire developed by Young (1993). It mainly measures fifteen early maladaptive schemas.

**Dysfunctional attitudes**

According to Beck, Rush, Show, and Emery (1979) dysfunctional attitude arises from a set of stable cognitive schemata that
are formed as a result of early life experiences. These schemata often involve exceedingly rigid and inappropriate beliefs about the self and the world. They function cognitively as filters, which allow an individual to interpret vast amount of information, gathered during their day-to-day interactions with the world.

In the present study dysfunctional attitudes are measured using Dysfunctional Attitude Scale (DAS). Dysfunctional attitudes are biased interpretations of negative life events resulting in overly pessimistic views of self, world, and future (Beck, 1967).