Understanding Anxiety Disorders

Dennis Kalogeropoulos, Ph.D.

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Understanding Anxiety

What is anxiety? What are the main characteristics?

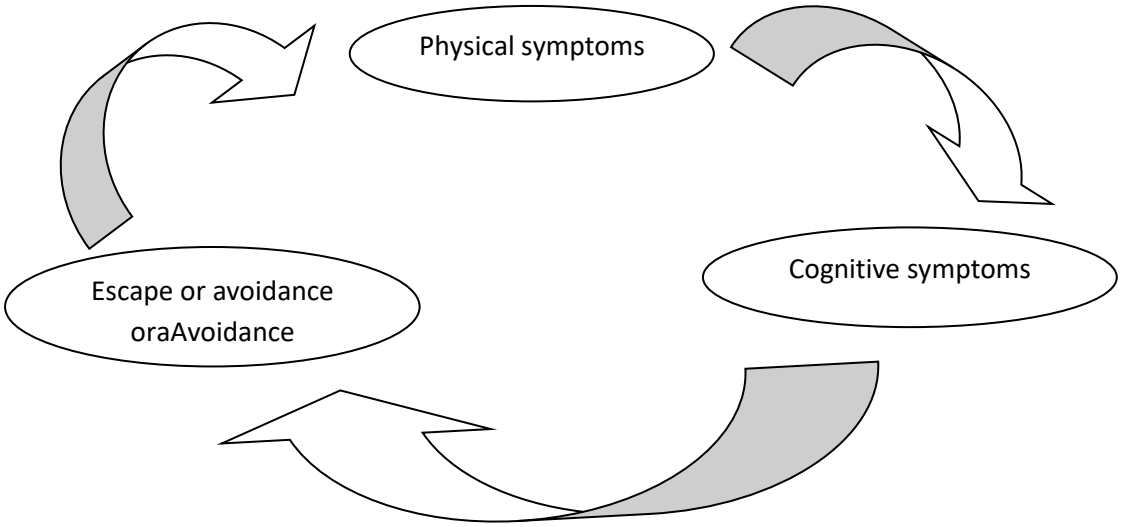
Anxiety is an adaptive emotion to a stressor that is expressed through at least two components: **physiological** (e.g., faster heartbeat and feelings of muscular tension) and **cognitive** (e.g., thoughts or worries about the potential occurrence of bad outcomes or events). The second component of anxiety represents a future-oriented response, such as the tendency to experience anxiety when one encounters a new situation or anticipates a life-changing event. In such instances, anxiety is time-limited, and it usually subsides once the event is over. However, in other cases, it extends out of proportion to the reality of the situation and lasts much longer. The latter condition, where anxiety is recurrent and excessive, can have a very negative impact on an individual's daily life.

What are the key components of anxiety?

Anxiety reactions involve three key elements: **body**, **mind** and **behavior**. Physiological (body) reactions occur unexpectedly and without medical reason. They are expressed through panic attacks, blushing, buzzing, ringing in the ears, muscle tension, irritability, fatigue, nausea, gastrointestinal distress or urinary frequency. For children, physical anxiety reactions are manifested through headaches and stomachaches.

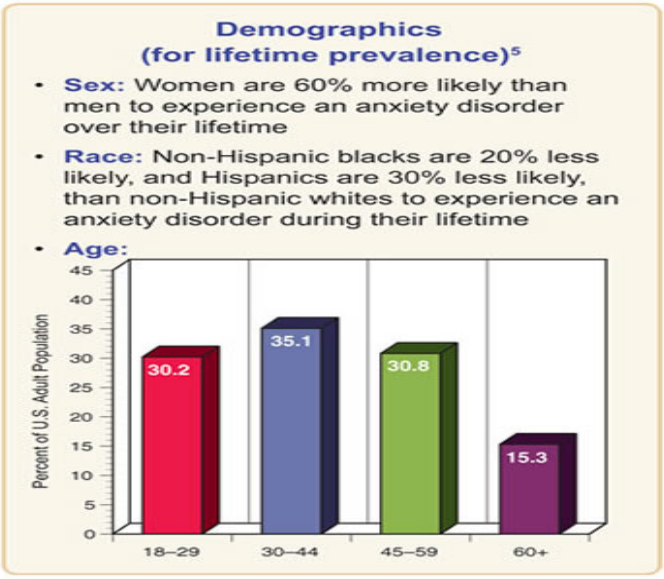
The second component of anxiety is the reaction of the mind to these bodily sensations. Cognitive (mind) symptoms include pessimistic thoughts, ideas, images or impulses. Negative thoughts are triggered when a person confronts a specific event, such as thinking about the potential threat of being close to a feared object or situation, or they can be spontaneous, such as reflecting on the possible occurrence of an event. Worry is the mental manifestation of anxiety. It is often a series of negative thoughts about something that can have negative consequences in the future.

Behavior, the third building block of anxiety, results from physiological and cognitive components. Avoidance and escape are the major anxiety-related behaviors that can provide temporary relief from distress. However, this increases avoidance behavior in the future which, in turn, traps the individual in a maladaptive, vicious circle of fear and further avoidance.



When does anxiety become a disorder?

Anxiety is a standard emotion that any human being presents in his or her life. Nevertheless, anxiety is considered a disorder when one faces personal suffering and it impairs his or her daily functions: quality of life, social functioning (Mendlowicz & Stein, 2000) and educational attainment (Kessler et al., 1995). Moreover, socio-demographic factors such as sex, ethnicity and socioeconomic status, play a role in distinguishing the types of anxiety a person may suffer. In fact, females are more prone to anxiety disorders than males by a ratio of three to one. As illustrated below, women in their 30s are more likely to experience anxiety compared to other age groups. Even though the main reason for this distribution is yet unknown, society expectations and culture are believed to trigger such results.



Socio-Demographic Factors of Anxiety Disorders

2005 National Comorbidity Survey Replication (NCS-R)

Anxiety Disorders

As presented in the fifth edition of the diagnostic statistical manual (DSM-V), anxiety disorders contain six types of fear- and anxiety-related syndromes. One can experience different types of anxiety (or "comorbid disorders"). In fact, 57% of people who are diagnosed with an anxiety disorder experience the co-occurrence of another anxiety disorder or depression (Brown et al., 2001).

A ***panic attack*** is a sudden emergence of intense fear and physical arousal that is accompanied by decreased discomfort that reaches its peak within minutes. Different physiological and cognitive symptoms are experienced differently among individuals (as enumerated below in the first criteria). Statistically, 28.3% of adults have had a panic attack in their lifetime, while only 4.7% have been diagnosed with panic disorder. There are two types of panic attacks: an expected attack is in response to situational or anticipated cues (e.g., a fear of heights or a fear of public speaking), while an unexpected attack occurs without a predicted object, event or situation.

To be diagnosed with panic disorder, one must experience at least one panic attack, worry about the reoccurrence of attacks and overthink the meaning of panic. Also, some people may behave differently after experiencing an attack or avoid certain situation to prevent its recurrence.

According to the DSM-V, certain criteria must be met for a person to be diagnosed with panic disorder:

A. Recurrent unexpected panic attacks during which **four or more** of the following symptoms occur:

- Palpitations, pounding heart or accelerated heart rate
- Sweating
- Trembling or shaking
- Shortness of breath
- Feeling of choking
- Chest pain or discomfort
- Nausea or abdominal distress
- Feeling dizzy, unsteady, light-headed or faint
- Chills or heat sensations
- Paresthesias (numbness or tingling sensations)
- Derealization (feeling of unreality) or depersonalization (being detached from oneself)
- Fear of losing control or "going crazy"
- Fear of dying

B. At least two of the attacks were followed by one month or more of **one or both** of the following:

- Pervasive concern or worry about future panic attacks and their consequences
- Subtle change in behavior due to attacks

C. Symptoms do not result from substance effects

D. Symptoms are not better explained by other mental disorder diagnoses

Agoraphobia, the fear of wide open spaces, develops mostly in women in early adulthood (McNally, 2002). It is often preceded by panic disorder (about 1% have both), yet not all agoraphobic clients have panic attacks—1.4% solely develop agoraphobia (Kessler et al., 2005). As its literal translation (i.e., fear of the marketplace) underscores, agoraphobia is an intense fear or anxiety of specific situations. Those who meet its diagnosis criteria also express concerns of experiencing embarrassing physiological symptoms in public, such as dizziness and falling. Nevertheless, some agoraphobic clients have no problem entering these situations when accompanied by a trusted person or object.

The DSM-V lists the diagnostic criteria of agoraphobia as mentioned below:

A. At least **two out of the five** following situations cause fear or anxiety:

- Using public transportation (automobiles, buses, trains, ships, planes)
- Standing in line or being in a crowd
- Being in open spaces (parking lots, marketplaces, bridges)
- Being outside of home alone
- Being in enclosed places (shops, theaters, cinemas)

B. Ideas that escape might be difficult or that help might not be available during panic-like or embarrassing symptoms create fear in the individual or make him or her avoid these situations
C. Agoraphobic situations almost always provoke fear or anxiety
D. Agoraphobic situations are actively avoided, require the presence of a companion or are endured with intense fear or anxiety
E. The fear or anxiety is out of proportion to the actual danger posed by the situation or the socio-cultural context
F. The fear, anxiety or avoidance is persistent, usually lasting six months or more
G. The fear, anxiety or avoidance causes clinically significant distress or impairment in social, occupational or other important areas of functioning
H. If another medical condition is present, the fear, anxiety or avoidance is clearly excessive
I. Other mental disorder symptoms do not better explain fear, anxiety or avoidance

Generalized anxiety disorder (GAD) is excessive anxiety and worry that occur more days than not and that last at least six months. It develops gradually in a person's late teens through their late 20s and usually becomes chronic. Five percent to 10% of adults in the community and clinical samples meet the diagnostic criteria of GAD (Maier et al., 2000) as do 15% of children (Costello et al., 2005). The worries experienced are usually about future events, past transgressions, financial issues and health, and they are out of proportion to the actual situation and are accompanied by physiological sensations. Two main mental processes are usually involved: on one hand, the person experiences an inability to tolerate uncertainty (Ladouceur et al., 2000) and on the other, he or she believes that worry may lead to the prevention of negative consequences (Borkovec et al., 2004). People who are diagnosed with GAD often have at least another psychological disorder (Andrews et al, 2010; Bruce et al., 2001) (usually an additional anxiety disorder or depression).

GAD onset is associated with unexpected, negative and very important life events for both men and women (Kessler et al., 2004). The DSM-V describes GAD's diagnostic criteria as follows:

A. Abundant anxiety and worry occurring more days than not for at least six months
B. The person has difficulty controlling the worry
C. Anxiety and worry are associated with **at least three** of the following six symptoms:

- Restlessness or feeling keyed up or on edge
- Irritability
- Easily fatigued
- Muscle tension
- Difficulty concentrating or mind going blank
- Sleep disturbance

D. Clinical significant distress or impairment in social, occupational or other important areas or function are impacted by anxiety, worry or physical symptoms
E. Disturbance is not attributed to the physiological effects of a substance or other medical condition
F. Other mental disorders do not better explain the disturbance

Social phobia is the fear of social situations; it is the third most common psychiatric disorder in the United States (Keller, 2003). Its average onset is between 11 and 13 years old and it affects both genders equally (Kessler et al., 2005). When faced with specific social situations, those who are diagnosed with social phobia fear that others will recognize anxiety and judge them negatively, or will even reject or offend them.

In 50% of cases, social phobia co-occurs with either GAD, agoraphobia, panic disorder, specific phobia, depression or posttraumatic disorder. Social anxiety impairs one's daily functions (educational or work) and social interactions. Many claim to use alcohol to decrease anxiety before social situations even though there is no empirical evidence for such facts (Carrigan & Randall, 2003). Those who engage in avoidance behaviors get enclosed in the vicious circle of fear and further avoidance (see “What are the key compents of anxiety?”), which prevents them from leaning on socially appropriate behaviors.

The DSM-V diagnostic criteria for social phobia are as follows:

A. One or more situations cause fear and anxiety when judged by others
B. Fear of showing anxiety symptoms that will trigger a negative evaluation
C. Social situations almost always provoke fear or anxiety
D. Avoidance of social situations or endurance with intense fear or anxiety
E. The fear or anxiety is out of proportion to the actual danger of the social situation and to the socio-cultural context
F. The fear, anxiety or avoidance is persistent, lasting at least six months
G. The fear, anxiety or avoidance causes clinically significant distress or impairment in social, occupational or other important areas of functioning
H. The fear, anxiety or avoidance is not due to the physiological effect of substance abuse
I. Other mental disorders do not better explain the fear, anxiety or avoidance

J. The fear, anxiety or avoidance is excessive or unrelated when other medical conditions are present

Specific phobia is an evident fear or anxiety about a specific object or situation, causing impairment in daily function. It develops early in life, with an average age of onset of 7 years (Kessler et al., 2005). It is more common among girls than boys, and more common among young children than adolescents (Murris et al., 1999). Two characteristics distinguish specific phobia from other typical fears: emotional distress that is caused by the phobic situation or object (e.g., lack of sleep, expecting the worst, experiencing physiological reactions that render the person exhausted) **and** functional impairment (e.g., being unable to accomplish a work task due to significant anxiety, which can impact one's career).

The diagnostic criteria include five types of specifiers:

- Animal phobias (fear of animals or insects)
- Blood/injection/injury phobia
- Natural environment phobias (storms, heights, water)
- Other fears that are unrelated to other groups
- Fear of **specific aspects** of a given situation (using public transportation, driving though tunnels or bridges, riding elevators, flying or being in enclosed places)

Typically, people have more than one phobia and other anxiety disorders. Specific phobia is a common anxiety disorder, as 12.5% American adults and 3.5% American children meet its diagnostic criteria. Among those who have specific phobia, 50% fear either animals or heights (LeBeau et al., 2010).

The DSM-V defines specific phobia as follows:

A. Significant fear or anxiety about a specific object or situation
B. The phobic stimuli has always caused immediate fear or anxiety
C. The person actively avoids the phobic object or situation or endures it with abundant fear or anxiety
D. The fear or anxiety is out of proportion to the actual threat of the phobic object or situation and to the socio-cultural context
E. The fear, anxiety or avoidance is pervasive and lasts six months or more
F- The fear, anxiety or avoidance leads to significant distress or impairment in social, occupational or other important areas of functioning
G- Other mental disorders do not better explain the disturbance

Children-Related Anxiety Disorders

Selective mutism is a regular failure to speak in specific situations, regardless of having the ability to speak and speaking under certain settings. The child engages in speaking only with their immediate family at home.

The DSM-V enumerates its diagnostic criteria as mentioned below:

A. Repetitive failure to speak in specific social situations where one is expected to speak
B. The impairment interferes with educational or occupational achievements or with social communication
C. The disturbance lasts at least one month
D. Failure to speak is not due to lack of knowledge or comfort with the spoken language required in a social situation
E. Other communication disorders do not better explain the disturbance

Separation anxiety disorder is excessive anxiety regarding separation from people to whom a child has a strong emotional attachment. The infant worries about potential harm that may be exerted on his or her caregiver. In extreme forms, the child refuses to go to school or may not want to be physically separated from his or her caregivers or home. When sleeping, he or she may object to sleeping alone or is unable to sleep away from home. Nightmares of separation are frequent and physical symptoms are shown to be compatible with worry (especially headaches and stomachaches). Even though almost 3% to 5% of children suffer from separation anxiety disorder, many recover promptly (Silverman & Dick-Niederhauser, 2004). Girls are more likely than boys to report separation anxiety as the disorder is more common in early infancy (Breton et al., 1999).

The DSM-V lists separation anxiety diagnostic criteria as follows:

A. Developmentally inappropriate and excessive fear or anxiety regarding separation from individuals to whom the child is attached

- Recurrent and excessive distress when anticipating or experiencing separation from home or from major attachment figures
- Persistent and excessive worry about losing major attachment figures or about potential harm to them

- Persistent and excessive worry about experiencing an unfortunate event that causes separation from an attached person
- Persistent unwillingness or refusal to go out due to fear of separation
- Persistent and excessive fear or reluctance of being alone or without major attachment figures at home or elsewhere
- Persistent reluctance or refusal to sleep away from home or to go to sleep without a major attachment figure nearby
- Repeated nightmares of separation
- Repeated physical complaints when separated from major attachment figure or when separation is anticipated

B. Recurrent fear, anxiety or avoidance lasting at least four weeks in children and adolescents, and six months or more in adults
C. Disturbance causes daily function impairments
D. Other mental disorders do not better explain the disturbance

Risk Factors

Biological Risk Factors

- Heritability:
    1. When a parent has an anxiety disorder, the child is more likely to have one too.
    2. Monozygotic twins are twice as high as dizygotic twins to have anxiety disorder (Andrews et al., 1990).
    3. There is a general vulnerability factor to developing anxiety disorder (inheritance of anxiety traits).
- Several areas of the midbrain, such as the amygdala, the hippocampus, the limbic and the paralimbic systems, are more involved in anxious emotion (Stein & Hugo, 2004).
- Different functioning of certain neurotransmitters is responsible for regulating various brain areas.
    1. Low levels of serotonin are responsible for regulating mood, thoughts and behavior.
    2. Gamma aminobutryic acid (GABA) inhibits post-synaptic activity.
    3. Corticotrophin-releasing factor (CRF) is also responsible for the development of anxiety.
- Early life experiences that alter brain activity, such as loss, separation or abuse, make an individual more vulnerable.
- Children with behavioral inhibition are more likely to show anxiety reactions (Gladstone et al., 2005).

Psychological Risk Factors

- Classical conditioning: Trigger of conditional response by unconditional stimulus.
- Vicarious learning: An indirect means of developing a disorder. Learning occurs through observation.
- Information transfer: Given instruction that a situation or an object should be feared.
- Maladaptive thoughts that automatically interpret ambiguous situations negatively.
- Fear of fear model (especially for panic attack): Sensitivity to bodily symptoms that leads to interpretation of any physiological state as a signal of an impending panic.
- Anxiety sensitivity: Belief that anxiety symptoms result in negative consequences (e.g., embarrassment or more anxiety).

Treatment

Psychological Treatments

Assessment is the primary step to ensuring effective treatment. It is a systematic evaluation and measurement of psychological, social and biological factors of an individual with a possible psychological disorder. It provides detailed information on symptoms, and helps identify causes and maintenance factors as it assesses current functioning level. Assessment also provides information on the patient's coping skills, helps predicts the client's future behaviors and suggests possible clinical interventions. Finally, it allows monitoring of the client's progress by establishing a baseline data and is the base of any therapeutic alliance.

A very useful and effective way to look at a disorder is through the **diathesis-stress** paradigm. It is a multidimensional model linking biological, psychological and social factors that lead to the development of a disorder. It focuses on the interaction between predisposition toward a disease (diathesis) and environmental or life disturbances (stress), allowing a better understanding of a client's case.

Psychodynamic treatment uses free association and dream interpretation as a reflection of the patient's outside world. Treatment involves "working through" and discovering what inner conflicts that led to the client’s disorder. However, the problem with this paradigm is that little is known on its efficacy due to the lack of empirical research to support it.

Cognitive behavioral therapy (CBT) is the most effective treatment for anxiety-related disorders for children, adolescents and adults. In both individual and group therapy, CBT is 70% successful across all disorders (Barlow, 2002).

Many techniques are used in CBT. **Exposure** consists of gradually exposing the client to the feared stimulus through real-life experiences; this is called in vivo exposure. Using physical exercises is one of the exposure means to treat panic disorder because it triggers the physiological sensations the client interprets as dangerous and that lead to panic attack. The client progressively assimilates that these

physical reactions are normal and that they are not indicative of any potential threats. When performed correctly, 70% of anxiety disorder clients show improvement (Compton et al., 2004).

Visualization is another technique that requires the patient to close his or her eyes and imagine him- or herself facing the feared situation or stimuli. Further discussions with the therapist lead to adaptation of alternative behaviors and decreased anxiety. New technologies such as virtual reality allow clinicians to expose people to commonly feared situations without leaving the office.

It is also important to note that the combination of exposure and other treatments enhances treatment efficacy. For instance, with social anxiety disorder, **social skills training** provides an opportunity to rehearse important skills in a safe, supportive setting.

Also, **relaxation training** is very useful when combined to other treatments. It decreases general physical arousal and helps treat GAD. **Biofeedback** is also a good means of monitoring physical behaviors with relaxation training.

To work on a client's negative thoughts, therapists refer to **cognitive restructuring techniques**. **Mindfulness** maintains moment-by-moment awareness of thoughts and feelings. It involves acceptance and inhibits judgments. **Thought-stopping** consists of imagining a stop sign to which a person yields by ceasing negative ideations. **Reality testing** encourages the client to look at reality as it is to prove or disprove his or her beliefs. **Realistic problem-solving** is also a crucial technique in which the client incorporates correct and realistic reasoning.

The combination of CBT and medication has not proven to enhance outcomes in most instances; however, adding CBT to medication has improved treatment for panic disorder (Craske et al., 2005).

Medications

- Selective serotonin reuptake inhibitors (SSRI) such as Prozac, Celexa, Zoloft and Ciprolex are the usually recommended medications for anxiety disorders.
- Benzodiazepines such as Xanax, Ativan and Rivotril allow GABA neurotransmitters to transmit nerve signals more effectively, which decreases anxiety.

It is important to monitor physical and psychological dependence to any of the abovementioned drugs when used on a long-term basis. It is recommended that medication withdrawal is performed under doctor supervision.