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Anxiety Disorders

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1. Generalised Anxiety Disorder

Introduction

The primary feature of generalised anxiety disorder is excessive apprehension and worry about things that have yet to happen. This contrasts the anxiety that defines other anxiety disorders, which occurs in response to more immediate situations and is typically accompanied by physical symptoms of autonomic arousal. Here, physiological signs typically involve muscle tension, fatigue, and irritability. Research suggests that women are more likely to develop GAD than men. The onset of GAD occurs in early adulthood, and this disorder is chronic unless treated, with a course characterised by a waxing and waning of symptoms.

The things about which the person worries range from insignificant matters to major events, and are not limited to big life decisions. The person's worry shifts from possible crisis to crisis, rather than focuses on one discrete event. As a result of the worry, people may find themselves having trouble sleeping or concentrating, impairing their functioning.

Symptoms

According to DSM-IV-TR, GAD is characterised by the following symptoms:

- At least 6 months of excessive anxiety and worry about a variety of events and situations
- There is significant difficulty in controlling the anxiety and worry
- The presence for most days over the previous six months of 3 or more (only 1 for children) of the following symptoms:
    - Feeling wound-up, tense, or restless
    - Easily becoming fatigued or worn-out

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    - Concentration problems
    - Irritability
    - Significant tension in muscles
    - Difficulty with sleep
- The symptoms cause clinically significant distress or problems functioning in daily life

Risk factors and causes

An inherited generalised biological vulnerability may be implicated in GAD, as GAD has been found to run in families. However, rather than a specific feature that directly causes GAD, it seems that people inherit the tendency to become anxious. Some physical conditions may also lead to symptoms that resemble the worry seen in GAD. They include gastroesophageal reflux disease (GERD), hypothyroidism or hyperthyroidism, and menopause.

In addition, heightened threat sensitivity also appears to be related to the development of GAD. People with this disorder are highly sensitive to threat in general, particularly to a threat that has personal relevance, and allocate attention more readily to sources of threat than do people who are not as anxious. This increased sensitivity may have developed in response to early stressful experiences, which taught them that the world is a dangerous place, things are out of their control, and they lack the ability to cope. This anxious reaction is entirely automatic or unconscious and contributes to symptoms of GAD. Current stressors may also cause excessive worry, triggering the onset of GAD.

Treatment

Pharmacological treatment involves benzodiazepines and antidepressants. Benzodiazepines provide some relief for patients, at least in the short term, and only have a relatively modest therapeutic effect. However, they are the easiest and most common form of treatment for this disorder. Because the side effects of benzodiazepines are serious, benzodiazepines are best used for the short-term relief of anxiety associated with a temporary crisis or stressful event. An alternative is the use of antidepressants (e.g., selective serotonin reuptake inhibitors), which may work better than benzodiazepines and have less negative side effects.

Psychological strategies mainly consist of cognitive-behavioural techniques. Cognitive restructuring is used to get patients to evaluate the realistic nature of their worries, and to recognise that their worrying is excessive. Exposure to the worry process involves focusing patients' attention on a horrible potential event, causing them to feel anxious. Then, patients learn to use cognitive strategies and other coping methods to appropriately counteract and control the worry process. In the long run, this method of

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therapy should help to reduce anxiety associated with such thoughts. Relaxation techniques can also be useful in decreasing tension.

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2. Obsessive-Compulsive Disorder

Introduction

Obsessive-compulsive disorder is defined by the presence of either obsessions or compulsions. Obsessions are essentially intrusive thoughts, impulses, or images that cause significant anxiety or discomfort in the individual, and are typically perceived as out of the person's control. Compulsions are usually ritualistic behaviours (physical or mental) that are performed in response to obsessions, and are used to neutralise the distress caused by the obsessions. There are five main categories into which obsessions can fall. They are contamination, aggressive impulses, sexual content, somatic concerns, and need for symmetry. The majority of people with OCD have more than one type of obsession. Examples of compulsions include washing, checking, arranging items in a certain way, and even mental acts such as counting and repeating phrases.

OCD appears to be as common in men as in women, but follows a different course depending on sex. Men tend to begin experiencing symptoms of OCD in adolescence (between 13 and 15 years old), while the onset in women tends to be around early adulthood (between 20 and 24 years old). Interestingly, Singapore has one of the highest prevalence rates of OCD in the world, at 3%, compared to the 1.6% prevalence rate found in the U.S.

Symptoms

According to DSM-IV-TR, OCD is characterised by the presence of either obsessions or compulsions:

- Obsessions as defined by (1), (2), (3), and (4):
    - (1) Recurrent and persistent thoughts, impulses, or images that are experienced at some time during the disturbance, as intrusive and inappropriate and that cause marked 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 (not imposed from without as in thought insertion)
- Compulsions as defined by (1) and (2):
    - (1) Repetitive behaviors (e.g., hand washing, ordering, checking) or mental acts (e.g., praying, counting, repeating words silently) that the person feels driven to perform in response to an obsession, or according to rules that must be applied rigidly

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- (2) The behaviors or mental acts are aimed at preventing or reducing distress or preventing some dreaded event or situation; however, these behaviors or mental acts either are not connected in a realistic way with what they are designed to neutralize or prevent or are clearly excessive

In addition,

- At some point during the course of the disorder, the person has recognized that the obsessions or compulsions are excessive or unreasonable. Note: This does not apply to children.
- The obsessions or compulsions cause marked distress, are time consuming (take more than 1 hour a day), or significantly interfere with the person's normal routine, occupational (or academic) functioning, or usual social activities or relationships.

Risk factors and causes

Many factors have been proposed to be related to the development of OCD. OCD appears to run in families, which means that the likelihood of developing OCD is higher if a relative has the disorder. The serotonin system also appears to be implicated in OCD as serotonin reuptake inhibitors are helpful in reducing the intensity of obsessions and compulsions. Brain imaging research has also found that brain circuits involving serotonin are activated in people with OCD when their obsessions are triggered.

In addition, those with OCD usually have a catastrophic reaction to intrusive thoughts, thinking that they hold more meaning or significance than they actually do, which may explain why they feel the need to neutralise or address those obsessions with compulsions. However, carrying out their compulsive behaviour reinforces their maladaptive appraisals because such behaviour prevents them from disproving their cognitions. For example, if people afraid of germs do not fall sick after washing (the compulsion) their hands, they might come to the conclusion that they did not get ill because they washed their hands. However, if they were to simply ignore the thought and resist hand washing, they would probably find that they would not get sick even if they did not wash their hands. Furthermore, attempts to reduce threat from an obsession prevent the natural process of habituation from occurring, maintaining a high level of anxiety.

Treatment

The primary method used to treat OCD is exposure and ritual prevention (ERP) therapy. In this form of treatment, the patient is gradually exposed to his or her feared thoughts or situations in order to trigger anxiety. At the same time, the patient is prevented from performing any rituals so that the patient can habituate to the aversive stimulus, and eventually reduce the levels of anxiety or distress associated with these feared stimuli. Furthermore, cognitively, patients can learn that no harm will result regardless of their enactment of their rituals. Although much evidence supports the efficacy of ERP

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therapy, many patients are reluctant to engage in this mode of treatment because it involves facing one's greatest fears.

Medication can also be used in the treatment of OCD. As mentioned previously, SSRIs (selective serotonin reuptake inhibitors) have been found to be useful in alleviating OCD symptoms. However, patients who discontinue their medication have a high rate of relapse, in contrast to those who undergo cognitive-behavioural treatments, who show a long-term maintenance of treatment gains. In more extreme cases, psychosurgery is used when no other treatment seems to work.

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3. Panic Disorder

Introduction

A person with panic disorder experiences recurrent unexpected panic attacks that may or may not be accompanied by agoraphobia, which is a fear of places or situations from which escape may be difficult or in which help may not be available to the person in the case of a panic attack. In most of cases, agoraphobia co-occurs with PD. The use and abuse of substances are not uncommon in people with PD, as they may function as safety behaviours or attempts to self-medicate. Another feature of PD is interoceptive avoidance, the avoidance of internal physical sensations that are similar to those that occur during a panic attack, such as accelerated heart rate and shortness of breath. For example, the person may avoid exercise or even climbing a flight of stairs because it leads to an increase in heart rate. As a result of their anxiety, people with PD become less and less able to carry out many daily activities or even travel around. In more severe cases, the individual is unable to leave his or her room. Mood disorders, such as major depressive disorder, can develop as a result.

Females are twice as likely to have PD than males, and the average age of onset is between 20 and 24 years old. The prevalence of PD with and without agoraphobia generally decreases among the elderly. The suicide attempt rate for PD is similar to that of major depressive disorder at about 20%.

Symptoms

According to DSM-IV-TR, panic disorder is characterised by the following symptoms:

- Recurrent unexpected panic attacks
- At least one of the attacks has been followed by 1 month (or more) of one (or more) of the following:
    - Persistent concern about having additional attacks
    - Worry about the implications of the attack or its consequences (e.g., losing control, having a heart attack, “going crazy”)
    - A significant change in behavior related to the attacks

A panic attack is defined as:

- A discrete period of intense fear or discomfort, in which four (or more) of the following symptoms developed abruptly and reached a peak within 10 minutes:
    - Palpitations, pounding heart, or accelerated heart rate
    - Sweating
    - Trembling or shaking
    - Sensations of shortness of breath or smothering
    - Feeling of choking
    - Chest pain or discomfort

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- Nausea or abdominal distress
- Feeling dizzy, unsteady, lightheaded, or faint
- Derealization (feelings of unreality) or depersonalization (being detached from oneself)
- Fear of losing control or going crazy
- Fear of dying
- Paresthesias (numbness or tingling sensations)
- Chills or hot flushes

Panic disorder may occur with or without agoraphobia. Panic disorder with agoraphobia is characterised by:

- Anxiety about being in places or situations from which escape might be difficult (or embarrassing) or in which help may not be available in the event of having an unexpected or situationally predisposed panic attack or panic-like symptoms. Agoraphobic fears typically involve characteristic clusters of situations that include being outside the home alone; being in a crowd, or standing in a line; being on a bridge; and traveling in a bus, train, or automobile.
- The situations are avoided or else are endured with marked distress or with anxiety about having a panic attack or panic-like symptoms, or require the presence of a companion.

Risk factors and causes

Rather than inheriting a specific vulnerability to develop PD, it seems that people inherit a vulnerability to stress, which is the tendency to be neurobiologically overreactive to everyday life events, making them more likely to experience unexpected panic attacks when confronted with stressful life events. Conditioning also occurs in which cues present during a panic attack (e.g., palpitations) become associated with certain situations. Once this happens, these situations may then trigger anxiety in the individual, ultimately leading to the occurrence of a panic attack.

In addition, patients with PD tend to have catastrophic misinterpretations of bodily sensations, which could have been learned in childhood. They believe that unexpected bodily sensations, such as those experienced during a panic attack, are dangerous. Because of these cognitions, physical sensations resembling those of panic attacks that could be easily attributable to something else (e.g., exercise) may be interpreted as dangerous, causing a surge of anxiety. This anxiety, in turn, produces more physical sensations due to action of the sympathetic nervous system, which the person perceives as even more dangerous, aggravating his or her anxious symptoms. Thus, a vicious cycle begins that eventually results in a panic attack. This anxiety over the development of symptoms is what seems to maintain the disorder.

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Treatment

Medications can be used to treat PD, specifically those that work on the serotonergic, noradrenergic, and GABA neurotransmitter systems. Drugs that work include benzodiazepines, SSRIs, and serotonin-norepinephrine reuptake inhibitors (SNRIs). However, patients show high relapse rates when pharmacological treatment is discontinued.

Psychological treatments can be exposure-based, in which the patient is exposed to feared situations or sensations and prevented from using safety behaviours to reduce anxiety. The aim is to allow the patient to undergo the process of habituation as well as to learn that there is nothing to fear. Teaching relaxation techniques can also be helpful in alleviating symptoms. Cognitive therapy is another treatment alternative that involves identifying and altering patients' cognitions regarding the dangerousness of their feared situations. These methods have been found to be highly efficacious, and have more enduring benefits than medication.

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4. Post-traumatic Stress Disorder

Introduction

Post-traumatic stress disorder involves exposure to trauma of some kind involving extreme fear, helplessness, or horror. The exposure may be direct or indirect. Thus, those who experience the event, witness it, work to deal with its aftermath (e.g., emergency workers), or are close to a victim of the event may potentially develop PTSD. Usually, there is a continued re-experiencing of the trauma through various modalities as well as avoidance of many cues or stimuli related to the traumatic event. Because intense emotions themselves may serve as a reminder of the trauma, the person may simply appear numb emotionally to avoid any such experience. The person is also in a state of heightened arousal and may find it difficult to carry out everyday activities. The common types of trauma that may induce PTSD include combat, sexual assault, and accidents.

Associated features of PTSD include depression, impulsive behaviour, guilt (especially in cases of sexual trauma), and cognitive problems (e.g., difficulty concentrating). The person may also be plagued by suicidal thoughts as a result of the trauma. Substance abuse is common in people with PTSD and could be their attempt to self-medicate or alleviate symptoms.

Symptoms

According to DSM-IV-TR, PTSD is characterised by the following symptoms:

- The person has been exposed to a traumatic event in which both of the following were present:
    - The person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others
    - The person's response involved intense fear, helplessness, or horror
- The traumatic event is persistently re-experienced in one (or more) of the following ways:
    - Recurrent and intrusive distressing recollections of the event, including images, thoughts, and perceptions
    - Recurrent distressing dreams of the event
    - Acting or feeling as if the traumatic event were recurring
    - Intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event
    - Physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event
- Avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following:

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    - Efforts to avoid thoughts, feelings, or conversations associated with the trauma
    - Efforts to avoid activities, places, or people that arouse recollections of the trauma
    - Inability to recall an important aspect of the trauma
    - Markedly diminished interest or participation in significant activities
    - Feeling of detachment or estrangement from others
    - Restricted range of affect (e.g., unable to have loving feelings)
    - Sense of foreshortened future (e.g., does not expect to have a career, marriage, children or a normal life span)
- Persistent symptoms of increased arousal (not present before the trauma) as indicated by two (or more) of the following:
    - Difficulty falling or staying asleep
    - Irritability or outbursts of anger
    - Difficulty concentrating
    - Hypervigilance
    - Exaggerated startle response
- Duration of the disturbance (symptoms in criteria 2, 3 and 4) is more than 1 month.
- The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Risk factors and causes

A contributing factor to the development of PTSD is a generalised biological vulnerability that predisposes the individual to be stressed or anxious when faced with a difficult situation. In addition, certain personality traits may increase the likelihood that an individual will be exposed to trauma, thereby increasing the risk of PTSD. Childhood experiences with unpredictable or uncontrollable situations may also teach people that the world is a dangerous place and that they have little ability to determine their own circumstances, making them more vulnerable to feelings of anxiety.

Other factors that are more specific to the development of PTSD include the severity of the trauma (the greater the severity, the more likely PTSD will develop), minimal education (which has found to be associated with exposure to traumatic events), and family instability. In particular, if the trauma experienced is extreme, the presence of biological or psychological vulnerabilities may not matter as much. That is, even if the person does not seem to have any predispositions to develop PTSD, high levels of trauma are likely to result in PTSD. Even after exposure to trauma, however, having strong social support and positive coping strategies that involve active problem solving can reduce the person’s risk of developing PTSD symptoms.

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Treatment

Typically, treatment for PTSD takes a while, depending on the severity of the patient's symptoms. Cognitive-behavioural therapy involves exposure to cues related to the original trauma, processing the intense emotions that will be triggered, and learning to develop effective coping procedures. Exposure is usually imaginal and can either be graduated or massed. In imaginal exposure, the content of the trauma and the emotions it induces are worked through systematically, with the help of a therapist, until habituation occurs. The cognitive aspect of treatment might involve correcting negative assumptions about the incident (e.g., believing that one is to blame for the event and feeling guilty). In addition, increasing the patient's positive coping skills and social support can help to bolster any treatment benefits and ensure that such gains are maintained. This form of treatment has been found to be highly effective in treating patients with PTSD.

Pharmacological treatment for PTSD usually involves SSRIs, which help to relieve the severe anxiety (and even panic attacks) that features prominently in this disorder.

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5, Social Phobia

Introduction

Social phobia is basically a fear of social situations, typically those involving evaluation by others. The two subtypes of social phobia are generalised and public speaking. The former refers to a fear of almost all social situations, and is particularly prominent in children, while the latter specifies a fear with respect to public speaking. In public speaking social phobia, people have little difficulty with social interaction, but when a social performance task is required of them, they are overwhelmed by anxiety and the possibility that they might embarrass themselves. Common physical reactions such as blushing, sweating, or trembling can induce strong feelings of anxiety in people suffering from social phobia.

Generally, features associated with this disorder include shyness, sensitivity to criticism, perfectionism, poor social skills, and low levels of social support. In addition, because people who suffer from social phobia tend to avoid social situations, there is little opportunity for them to develop social skills or to build a social network, which does not help their problem. About 1.5 times more women have social phobia compared to men, and the onset of this disorder typically occurs in adolescence. This disorder tends to be more prevalent in people who are between 18 and 29 years of age, undereducated, single, and of low socioeconomic status.

Symptoms

According to DSM-IV-TR, social phobia is characterised by the following symptoms:

- A marked and 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. The individual fears that he or she will act in a way (or show anxiety symptoms) that will be humiliating or embarrassing. Note: In children, there must be evidence of the capacity for age-appropriate social relationships with familiar people and the anxiety must occur in peer settings, not just in interactions with adults.
- Exposure to the feared social situation almost invariably provokes anxiety, which may take the form of a situationally bound or situationally predisposed Panic Attack. Note: In children, the anxiety may be expressed by crying, tantrums, freezing, or shrinking from social situations with unfamiliar people.
- The person recognizes that the fear is excessive or unreasonable. Note: In children, this feature may be absent.
- The feared social or performance situations are avoided or else are endured with intense anxiety or distress.
- The avoidance, anxious anticipation, or distress in the feared social or performance situations(s) interferes significantly with the person’s normal routine, occupational functioning, or social activities or relationships, or there is marked distress about having the phobia.

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- In individuals under age 18 years, the duration is at least 6 months.

Risk factors and causes

Social phobia is likely to involve a generalised biological tendency to develop anxiety, to be socially inhibited, or both. People with social phobia may also have learned early on that events, especially stressful events, are out of their control, increasing their vulnerability to anxiety. They may also be prepared to fear angry, critical, or rejecting people as a result of early experiences. Furthermore, the person could have learned growing up that social evaluation is particularly dangerous and might be predisposed to focus his or her anxiety on events involving social evaluation.

A neurochemical abnormality in the brain involving serotonin may be implicated in this disorder as serotonin plays a part in the regulation of mood and emotions. The amygdala may also contribute to the development of social phobia as it is responsible for controlling fear response. An overactive amygdala may result in a greater fear response, increasing a person's anxiety in social situations.

Treatment

Treatment for social phobia involves medications such as tricyclic antidepressants, monoamine oxidase inhibitors, SSRIs, and D-cycloserine. D-cycloserine enhances treatment effects when used as an adjunct to psychotherapy. It is an antibiotic that influences the amygdala and accelerates the rate of habituation, allowing the person to respond more quickly to exposure therapy. However, as is with most pharmacological treatments, relapse rates are high when the drugs are discontinued.

One of the most effective treatments for social phobia is group cognitive-behavioural therapy. Due to the group setting, this mode of treatment is a form of exposure by itself. As part of therapy, patients practise social interactions and rehearse or role-play their feared social situations in front of one another to improve social skills and reduce anxiety associated with social situations. Cognitive restructuring is another treatment alternative that involves modifying patients' maladaptive cognitions regarding the dangerousness of their feared situations. Cognitive therapy addresses patients' assumed likelihood that a negative consequence will occur as well as severity of such a negative outcome, and helps them to evaluate the validity of their assumptions. Finally, cognitive therapy teaches patients how to cope with negative consequences, even if they did occur, so that the anxiety associated with those situations can be reduced.

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6. Specific Phobias

Introduction

Specific phobias involve an irrational fear of a specific object or situation that significantly interferes with an individual's ability to carry out daily activities. Most people who suffer from a specific phobia tend to have more than one phobia. There are five broad categories into which phobias can be classified: animal, natural environment (e.g., heights), blood-injection-injury, situation (e.g., elevators or planes), and other (e.g., fear of situations that may lead to vomiting).

Generally, females are four times more likely to have a specific phobia than men, and the median age of onset is 7 years old. Although specific phobias follow a chronic course, they tend to decline in old age. Interestingly, prevalence rates vary from one culture to another.

Symptoms

According to DSM-IV-TR, specific phobias are characterised by the following symptoms:

- Marked and persistent fear that is excessive or unreasonable, cued by the presence or anticipation of a specific object or situation (e.g. flying, heights, animals, receiving an injection, seeing blood)
- Exposure to the phobic stimulus almost invariably provokes an immediate anxiety response, which may take the form of a situationally bound or situationally pre disposed panic attack. Note: in children, the anxiety may be expressed by crying, tantrums, freezing or clinging.
- The person recognises that the fear is excessive and unreasonable. Note: in children this feature may be absent.
- The phobic situation is avoided or is endured with intense anxiety or distress.
- The avoidance, anxious anticipation, or distress in the feared situation(s) interferes significantly with a person's routine, occupational (or academic) functioning, or social activities or relationships or there is a marked distress about having the phobia.
- In individuals under the age of 18 years the duration is at least 6 months.

Risk factors and causes

The initial precipitant of a specific phobia may be a true direct or vicarious experience, in which real danger or pain causes a fear response. The danger may also be false, meaning that no real threat was involved. For instance, the person might have experienced an unexpected panic attack in a specific situation, instilling a fear of that situation. Under the right conditions, simply being repeatedly told about a potential danger can lead to the development of a phobia.

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Those with specific phobias may also have inherited a low threshold for responding to threats with a fear reaction, making them more vulnerable to developing a phobia. The tendency to be anxious over the possibility of experiencing a feared stimulus in the future also contributes to this disorder. They may also have learned early on that a specific object or situation is dangerous and must be avoided at all costs, contributing to the development of specific phobias.

Treatment

For specific phobias, psychological treatments are highly effective, helping to treat the disorder 95% of the time. One form of psychotherapy is systematic desensitisation, which involves creating a hierarchy of feared situations in order of increasing ability to induce fear in patients. Patients are taught progressive muscle relaxation, which patients carry out as they imagine or experience one of the items on their hierarchy. This process continues until the person is able to imagine or experience the scenario without feeling anxious.

Exposure therapy consists of structured and consistent exposure-based exercises, typically under therapeutic supervision. In this form of therapy, patients are exposed to their feared stimulus and exposure is maintained until habituation occurs and their fear subsides. This method is able to work because it is impossible to maintain a high level of arousal for an extended period of time. During this time, any avoidance or safety behaviour is prevented. The exposure can be graduated or massed, and the rate at which treatment progresses is dependent on the willingness of patients to face their fears or the intensity of fear that they are able to endure.

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