

# *An Overview of Specific Phobia: Etiology and Treatment*

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**Abstract:** As a common mental disorder, 5-12% of the population suffers from specific phobias. However, there has been relatively little research into specific phobias. In addition, there is a degree of social stigma attached to phobias. Combined with these factors, people with phobias suffer from inadequate treatment and discrimination. Therefore, this study aims to solve this problem. This paper focuses on specific phobias. The author adopts the method of literature review to carry out the research. Key findings include the causes, effects, symptoms, methods, treatment and prognosis of the disease. For the sake of future improvement, people should give patients proper attention and generous help. Future researchers should study in detail the causes, mechanisms and treatment options for phobias in different animal species. Research into the brain and neural mechanisms should also be considered.

**Keywords:** phobia, fears, avoidance behaviors, etiology

## **1. Introduction**

In many cultures, the adult label is often associated with independence, maturity, and power. If a person is afraid of animals, flying or having nightmares, their key words may change to timidity, cowardice and burden [1].

In fact, between 5 and 12 percent of the world's population is overly fearful of certain situations, problems or events, according to studies [2]. Technically defined as specific phobia, it is an acute fear of a specific subject or condition and a type of anxiety disorder. Among mental disorders, phobia is the most common anxiety disorder. Today, the subcategories of specific phobias are still unclear. Both fear and avoidance involve specific phobias. In order to reduce the duration and severity of pain and damage, people with certain phobias choose to avoid. However, the early onset and long-term strong persistence make these phobias important. Ranging from 3% to 15%, specific phobias around the world show a lifetime prevalence that cannot be underestimated. Of all the categories, Agoraphobia and zoophobia are the most prevalent.

The phobia's process, including fear, evasion and diagnosis, indicated the chance of a complete cure. Interrupting the fear process is effective in reducing their prevalence. According to research, the origins of specific phobias are often linked to childhood, but the onset peaks in middle and old age. In 10-30% of cases, phobias that affect patients for years are strong predictors of the development of other anxiety, mood and substance use disorders. It should be of concern that early therapy for phobias may influence other disorders, leading to high comorbidities to other psychiatric mental illness, especially after phobia starts. Exposure therapy is still the first choice of treatment although

in the long term this approach may be less effective than previously thought. As the body of intervention research expands, it is necessary to systematically evaluate the available evidence for treating phobias. Prior studies revealed that psychotherapy and specific cognitive behavioral therapy are more effective advanced interventions when administered independently or as an adjunct.

In order to seek a more beneficial effect of alleviating fear, the use of technology-assisted therapy is recommended. Also, it is more tolerable than in vivo exposure therapy. What has been studied solely as an adjunct to exposure therapy are pharmacological agents whose effects have been surprisingly inconsistent. In order to alter the pathways of fear arousal and phobia activation, several cognition-based therapies have been designed with initial positive results [3].

Challenges remain due to the inherent heterogeneity of specific phobias. The variability of outcome measurements and treatment methods ensures a clear result on efficacy, both of which are accompanied.

As a classification of anxiety disorders, specific phobia (SP) represents a non-rational fear toward a particular object or condition. In the DSM-III and DSM-III-R, it was originally called Simple Phobia. In DSM-IV, the name was changed to SP. Blood/injection/injury (B-I-I), animal, natural environment, and situation were listed as five SP types. The development process for the fifth edition is still ongoing, and there are five types of phobias, including environmental phobia, which is expressed as fear of lightning, fear of tornadoes, animal phobia, which is expressed as fear of snakes, fear of bears, blood damage phobia, which is expressed as fear of needles, fear of seeing blood, situational phobia, which is expressed as height, public speaking and other phobias that are not explicitly stated, such as fear of vomiting and so on [4]. The study is not only an attempt to popularise understanding of animal phobia, but also a call for more people to show compassion for those suffering from animal phobia, rather than indifference to those suffering from extreme suffering. In this study, the author will briefly introduce the causes of different phobias, and then introduce several effective treatment methods.

## **2. Popularity of Phobia and Gender Differences**

Age can reflect the prevalence of a particular phobia. SP has been found in children ranging from 10 years old to seniors in their 50s. The likelihood of developing the disease is relatively high irrespective of patients' age. The range of ages involved is so large that it is difficult for us to measure precisely.

Gender is an important factor affecting anxiety level, and the gender difference in anxiety level is consistent. Women have significantly higher rates of the disease than men. Studies from multiple regions have shown that the gender gap is down to differences in scores and anxiety among boys and girls aged 14 to 16. Women reported higher scores for both academic achievement and anxiety. Therefore, it is necessary to use different points to determine the distinctive levels of examination anxiety for males and females [5].

## **3. Etiology of Phobias**

The first method is via classical conditional reflexes. Classical conditional reflex is considered as a learning form in which a prior neutral stimulus is partnered with an unconditioned stimulus, which reflexively triggers an unconditioned response, and by association with an unconditioned stimulus triggers the same response. This reaction is called a conditioned reaction. In 1927, Pavlov came up with classical conditioning by conducting an experiment in which he placed hungry dogs on a shelf and fed them food, associating the salivation triggered by the food with the ringing of a bell. At first, he observed that salivation was caused only by the presence of food. When food is given to dogs at the same time as the bell ringing, the ringing alone causes the dogs to salivate. In classical conditioning, the combination of conditioned reflex and unconditioned reflex can establish a new conditioned reflex, and even change the size and time of conditioned response. In classical

conditioning, the form of CR is determined by CS and US, while in universal conditioning, what matters is the intensity and frequency of the response, not the form, independent of US [6].

The second reason patients develop phobias is vicarious learning. Modeling is a kind of vicarious learning. Modeling can be understood as someone consciously learning from others' experiences and feelings, empathizing with others' experiences, and learning by acquiring perceptions and feelings. For example, both vision and hearing are actually sources of vicarious learning, which reflects the indirect nature of vicarious learning and is quite different from direct learning. This involves a concept: indirect sources. For example, when people are watching a movie and imagine another scene through one picture of the movie, the movie is an indirect source. For fear, specific circumstances or events may trigger indirect fear, such as seeing someone scratched by a cat, bitten by a snake, bitten by a dog, chased by a goose, and so on can trigger a person's fear of certain things.

The third type of phobia is a hormonal response. Hormones are potent in small amounts, and at low levels, this response works to humans' advantage, helping us identify potential threats and respond to sudden dangers. Hormones have a variety of effects on human beings. They can regulate metabolism, thus affecting individual growth and development, and even play an important role in reproductive and sexual activities. Hormones are produced by differentiated endocrine cells and secrete into blood directly. Hormones can regulate the metabolic activities of a variety of tissues and cells, and then affect human biological activities. It is an essential material in our life [7].

Fourth, evolutionary natural selection picks out people who can protect themselves safely. The ancestors of human beings are forest apes. Human beings have experienced four stages: apes, hominids, *Homo sapiens* and modern man, and developed from primates. In terms of phobias, for example, our ancestors were afraid of snakes and spiders, so they kept their distance, improved their survival rate, and survived. For another example, our ancestors were afraid of open space, which also triggered similar pathways to ensure their safety and benefit their survival. Large open space has no space for hiding, which triggered the fear of ancestors, who avoided open space in order to avoid being hurt. So, for genetic reasons, their descendants, who are now people, are afraid of these things [8].

Finally, genetics can also directly contribute to phobias. Genes (genetic factors) are valid genetic segments of DNA. Genes directly control human traits. All information about individuals' life processes is under the control of genes. The interaction between genes and the environment affects all aspects of normal body function. Genes affect human life, growth, decline, disease, aging, death. While we don't know exactly what causes phobias, they may be genetic. Research has shown that a person is more likely to have a phobia themselves if they have a phobia in their family.

#### **4. Impact Factors for Phobias**

The impact of phobias is not only on a child's academic performance, but also on their behavior and social welfare. It can also disrupt the child's daily activities. Currently used to prevent phobias and anxiety disorders in children, most treatments are targeted at individual students. In fact, often, Teachers and family members have a minor or indirect influence on the healing process. Nevertheless, the role of teachers and family members in recognizing and managing children with phobia will help the child's capacity to combat this disorder. Specific assessments, including interviews, reporting tools, other reporting measures, behavioral observation, monitoring, and physiological assessment, are tools to find solutions to children's fear problems [9].

In the study, the authors discuss the purpose of the study and childhood anxiety and fear. First, goals can be divided into the following parts. One of the most common human problems is fear. The more widespread the fear, the more serious it becomes. This fear can lead to a desperate decline in security. As a result, patients' daily activities will be affected, and they may experience specific phobias. The following five goals are discussed to identify several dimensions of fear and fear,

including the causes of fear, the main purpose of distinguishing children's distress conditions, the difference between common fears and phobias, the need for implementation, and the impact of fear on children's academic performance.

In addition, childhood anxiety and fear are also the most important. Several criteria and methods are involved at this point. Anxiety and phobia are common, undertreated disorders that are serious human dysfunction.

Self-assessment scale for better evaluation of anxiety disorders. Designed to assess symptoms associated with environmental phobia, agoraphobia, hematophobia, animal phobia, and many other mental disorders. The Childhood Anxiety Scale (SCAS), as a self-report scale for children, is effective. Through SCAS, there is evidence to support that boys and preteens experience fear and anxiety disorders more directly than girls or adolescents.

Leading to anxiety or fear problems, injuries, accidents and negative evaluations are areas where children experience serious problems. Most of the time, specific phobias are influenced by the experience of panic attacks.

Associated with a number of terror disorders, including agoraphobia, simple phobia, panic disorder, anxiety sensitivity, which strongly relate to fear, increases in young people.

One of the risk factors for panic attacks is anxiety sensitivity. So far, there have been studies that have tentatively supported this hypothesis. According to social evaluation, fear and phobia among children and adolescents are on the rise. The effect of a mother's emotions on fetal brain development may contribute to a child's behavioral development. Related to several social and psychological factors, anxiety and phobia are the most equal affective disorders. For these distressing anxiety problems in children, cognitive and behavioral strategies can help them cope with daily activities [10].

Phobias have a variety of physical, mental, emotional and health effects. Patients may experience heart attacks such as palpitations, sweating, shaking, shortness of breath, chest pain, vomiting, chills or hot flashes, and feelings of helplessness and loss of control.

## 5. Treatment for Specific Phobias

There are many ways to treat phobias. Systematic desensitization is the process by which patients who seek help slowly adapt to their phobia and eventually overcome it. Similarly, virtual reality therapy helps patients imagine encounters with objects of fear by simulating impossible or inaccessible scenes in the real world. Later, the author will introduce the CBT method. CBT targets areas of the brain involved in emotional production and regulation that are activated in response to threats. The author aimed at measuring resting cerebral blood flow (CBF) before and after CBT using arterial spin labeling (ASL). In the study, eight women with arachnophobia underwent scans before and one month after exposure-based group treatment. ASL resting state measurements were included, and each MRI session obtained before and after the symptom triggering task was included in the display of spider pictures in the scanner. Anticipatory anxiety was measured at first acquisition of ASL. The second test tested post-processing of phobias related stimuli. In the end, it turned out that CBT significantly relieved arachnophobia symptoms. Bilateral CBF reductions were observed in the parahippocampal gyrus, ventral anterior thalamus, Brodmann's Area 8, and anterior cingulate cortex, and symptoms were reduced in anticipation of anxiety. During post-processing of phobias related stimuli, reduced CBF were found in the bilateral insula, a region associated with language function and the motor cortex. In conclusion, to investigate the effect of psychotherapy on brain activity, longitudinal CBF dynamics after CBT are consistent with the results of several studies using BOLD-fMRI. ASL can quantify CBF as a suitable way to monitor and evaluate the efficacy of psychotherapy or pharmacotherapy, with the main advantage being sensitivity. As such, it can show changes in neural activity and task independence [11]. Cognitive behavioral therapy (CBT) allows patients to challenge dysfunctional thoughts or beliefs by focusing on their own feelings, with the goal of making patients

realize that their fears are irrational. It can change the way people see, the way they act, and effectively treat certain phobias. Eye movement desensitization and reprocessing (EMDR) has a valid therapeutic effect on post-traumatic stress disorder. Moreover, EMDR was found to reduce certain post-traumatic phobias, such as fear of dogs. Hypnotherapy can be used alone or in combination with systematic desensitization to treat phobias. Exposure therapy: A particularly effective form of CBT for specific phobias. Finally, antidepressants, such as SSRIs or MAOIs, may be helpful for certain phobias.

## 6. Prognosis

After the treatment process, in real life, most patients experience many significant behavioral changes when confronted with animals. Patients mainly attributed these behavioral changes to the treatment intervention program. This paper is consistent with the mainstream research in the field of specific phobias. In order to better evaluate the reasons, the author tries to discuss the main reasons and ascribe them to the original method of this paper, which is to review the existing articles. In addition, the suborders of specific phobias share similar etiologies and treatments. So, there are some common theories in this area.

### 6.1. Limitation

Several potential limitations of this study should be noted. First, the authors review different articles in several fields. There may be some complicated logic that is difficult to understand. Secondly, the lack of experiments and data may lead to the limitations of the study. More information and experiments will be added to the article in the near future.

### 6.2. Suggestion

For individuals suffering from phobias, they should take active steps to solve the problem. From the ideological level, patients should look at problems positively, face difficulties optimistically, find the right state of mind, believe that the disease can be cured, and look for light in the darkness. At the action level, patients should find the right way to solve the problem, do not escape the problem, understand the professional knowledge of psychology, learn the knowledge related to phobia, and seek help from others reasonably and timely. When treating patients with phobia, ordinary people should pay attention to eliminating prejudice, treat patients well, achieve real understanding, support patients from behavior, eliminate discrimination and prejudice against phobia, and create a positive social atmosphere. School is where students spend most of their time studying and working. School teachers should care for phobic patients.

## 7. Conclusion

In conclusion, at first glance, specific phobia might appear not that severe and dangerous. In fact, it's more complicated than that. The behavioral phenomenon can be caused by a number of factors, its descriptive characteristics are very complex, and the experience of sufferers varies. Also, it is distinguished from other related behavioral phenomena and mental disorders because of its unique characteristics.

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