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Specific Phobia Disorder and Its Implications

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Abstract: The primary purpose of this paper is aimed to learn about past and recent research on specific phobias. The overview will include discussions about its symptoms, etiology, social and cultural factors, and treatments. The overview of the etiology will cover and analyze the three models contributing to the specific disorder's causes. The overview will cover the gender differences, comorbidities, and related negative social impacts of cultural and social factors. The overview of the treatment will cover the development, evaluation, and comparisons of the current treatments. Based on the arguments and analysis in the debate, I will recommend and point out future Research Directions. In the results and discussion section, I'll introduce the possible causes of the specific phobia by providing associated models and theories, the social and individual impacts, the standard treatments, and their efficacies, interactions, and drawbacks. Then, I will generally conclude the findings and give recommendations about future research directions.

Keywords: Anxiety-Related Disorder, Specific Phobia, Psychotherapy, Avoidance

1. Introduction

To increase the survival probability from the potential threat and dangers, a human ancestor needs to develop a particular mechanism. The fight and flight response could be seen as the pattern that ensures the evolutionary value of humans as reacting towards danger. It evokes fear and ensures individuals escape dangerous situations or fight [1]. However, when intense fear comes and triggers physiological symptoms like increased heart rate, muscle tension, and breath rate and occurs to show constant fear or avoidance reactions towards nothing to be afraid of or be stressed about, an individual may be likely to be diagnosed with anxiety and anxiety-related disorder [1].

Specific Phobia, an anxiety-related disorder described as drama and increasingly feared, and avoidance responses towards specific objects or situations have been widely studied and investigated. Although there's a variety of literature has been covered and debated about its etiology and prevalence. Many gaps existed for its comorbidities and negative social and cultural impacts. This article aims to go through the general definitions and criteria of this disorder, compare and overview the current treatments' efficacies, and point out the limitations and potential future research direction on the discipline of the specific phobia.

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2. Literature Review

2.1. Connotation

Based on DSM-5, a specific phobia is the strong and intense fear or anxiety towards a specific situation or object. Children's anxiety and fear may express in the form of crying, tantrums, freezing, or clinging. The particular position or object is called the phobic stimulus, and their categories are known as the specifiers. There are five specifiers. Animal type states that the phobic object is an animal or insect. The natural environment type states that a specific natural environment or circumstances contribute as a phobic stimulus, such as deep water or high places. Blood Injection-Injury type states that an individual's phobic stimuli are the situation of people seeing blood, injury, or fear of certain types of invasive medical procedures. The situational type states for the phobic stimulus are the different specific situations like elevators or airplanes. The last one, other type states for the phobic stimulus not covered in any of the previously mentioned categories, like the extreme fear towards vomiting, choking, and costumed characters.

2.2. Prevalence and Criteria

Besides mentioning the general symptoms that contribute to the diagnostic criteria, it is also worth mentioning the prevalence. According to the DSM-5, the one-year community prevalence estimation in the United States is around 7% to 9%. The prevalence is around 5% for children, and for adolescents around 13- to 17-year-olds, the rate is approximately 16%. For the aging population, the prevalence rate is slightly lower, with about 3% – 5%. This might reflect the decline of the subclinical levels as age increases. Females seemed to be more influenced by this disorder than males, with a ratio of 2:1.

First, the fear must be intense and severe to meet the diagnosis criteria. Also, individuals will be evoked fear or anxiety by the phobic stimulus nearly every time they contact them when encountering the situation, and the individual will show strong avoidance. Their fear and anxiety will intensify if they cannot avoid the case. Active avoidance is the term that defines the intentional avoidance behaviors of the individual in preventing or minimizing contact with them towards the situations. The persistently active avoidance and refusal of exposure to the phobic stimulus that lasts for a long time (more than six months) would be an essential criterion for diagnosing the specific phobia. Beyond this, the excessive fear and anxiety over the extent of the actual danger in natural settings also contributed to determining the diagnosis of this disorder. The specific phobia must cause significant distress or maladaptive function in the individual's social, occupational, or other crucial aspects of daily life to be diagnosed.

2.3. Etiology

The Etiology of the specific phobia is firstly based on the associative model, the non-associative model, and the biological preparedness model.

The first etiological model is the associative model. It strongly aims to demonstrate the importance of classical conditioning theory in forming phobic stimuli based on Watson and Rayner's approach [1]. When a neutral stimulus is combined with a threat that could trigger fear in an individual, the individual will then learn to combine this stimulus with fear and avoid it later [1]. One criticism of this approach is that this model claims that all neutral stimuli have equalized potential to contribute to triggering fear, resulting in an individual's phobia. This is called the equipotentiality premise [1]. According to this model, a flower and a spider have equal potential to develop into the resources of phobia. However, a human cannot have a phobia of everything. Thus, this model is limited since there are only specific numbers of stimuli that could finally be related to phobia.

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Unlike the associative model, the non-associative model demonstrates that the evolutionary process endows humans to react fearfully towards certain groups of stimuli, such as deep water, heights, or some insects [2]. Thus, there will not be learning for developing fears towards these stimuli [3]. The stimuli that elicit fear are that it might take high cost and even put human individuals endangered to learn to be fearful towards them with personal experience. For instance, Menzies and Clarke claimed that a biological predisposition to height fear is helpful since it prevents an individual from falling in real-life situations, which is a very lethal experience.

Besides this, Menzies and Clarke [3] also argue that most human individuals will finally habituate to the fear of the stimuli over time. Those who still fail to adapt to these stimuli may develop a specific phobia. Few studies offer support for this model. For instance, Distel and colleagues [4] have found a genetic contribution to fear. In short, the previous study has offered solid evidence to explain specific phobia's biological roots. However, this model still has its limitation. Although humans generate fears towards particular species, it still doesn't mean that all the individuals in this particular species pose a threat. For instance, only 0.1 percent of 3500 varieties of spiders worldwide are hazardous, but spider phobias still constitute a significant proportion of the phobic stimuli [4].

Combining the associative and the non-associative models, the biological preparedness theory explains the specific phobia more comprehensively. Seligman argues that humans fear certain stimuli more due to the biological predisposition to prevent individuals from potential threats. Therefore, it demonstrates why fearing a spider is much easier than developing a fear of a rabbit. However, unlike the non-associative model, this model also claims the importance of associative learning. In this description of this model, the experiences of associative learning experiences will generate phobias due to the phobic stimuli. The phobic stimuli per se thus represent the stimuli that carry an evolutionary meaning [1].

Additional to the approaches mentioned above, researchers have not simply focused on investigating the fear that arises with the phobic stimuli. Also, the disgust sensitivity in developing and maintaining phobias is investigated for their etiological sense. Disgust sensitivity conceptualizes the degree to which individuals are expected to evoke disgust by particular stimuli, such as certain types of food and some small creatures [5]. The core hypothesis is that people generate some phobia because those stimuli are contaminated and disgusting, which may develop into potential threats to the individual.

In short, the etiology of specific phobia is complicated but strongly related to human nature, for all the approaches are combining towards to prove how the fear, disgust, and avoidance develop with the specific phobia play a role in preventing humans from potential threats and in increasing individual's survival possibilities in the face of danger in the nature.

2.4. Impacts

One crucial social and individual impact of the specific phobia is its gender and age differences on its prevalence rates and its relationships and impacts of comorbidities with some physical disorders.

According to the DSM-5, the gender differences in the prevalence rates and the type of phobic stimuli are worth noting. Fredrickson and his colleagues [6] identified that women tended to have higher fear ratings for all objects and situations. The findings also indicate that static object fears and phobias were more prevalent in the aging population than in younger individuals [6]. Additionally, the findings show that younger people had more prevalent animal phobias than older people [6]. In women, but not men, fear of flying increased with age, while fear of injections decreased. [6]. Another intriguing study revealed that implicit maternal gender stereotypes are linked to daughters' fear of snakes and fear reaction to snakes, which might also explain the gender differences in specific phobias [7].

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According to DSM-5, cultural backgrounds also impact people's prevalence of specific phobias. Asians and Latinos in the United States report lower rates of a specific phobia than other ethnic minority groups. Other countries with various socio-cultural backgrounds than the United States also differ based on phobia content, age at onset, and gender prevalent ratios.

Besides, the comorbidities and the negative impacts of the specific phobia are also worth mentioning and analyzing. As claimed in the DSM-5, the specific phobia has comorbidities with many mental disorders, but there are still limited studies focusing on how it is related to the physical disorder. However, Witthauer and his colleagues' study [8] revealed some parts of the associations. The findings of this study revealed that the Specific phobia was related to cardiac diseases, gastrointestinal diseases, respiratory illnesses, arthritic conditions, severe headaches, thyroid disorders, and subtypes. [8].

Except for the gender and age differences, and the associations of specific disorders and other mental or physical diseases, suicidal attempts are also a factor that is always ignored by researchers but could deadly influence individuals. According to the DSM-5, people with specific phobias are approximately 60% more inclined to attempt suicide than people who do not receive the diagnosis. For those diagnosed with other anxiety-related diseases, mood disorders, or personality diseases, the suicidal rates may elevate as they also diagnose the specific phobia.

2.4.1. Prognosis and Treatments

For the treatment of the specific phobia, the mainstream treatments are psychotherapy; pharmacotherapy can interact with exposure-based psychotherapy [9].

The mainstreamed exposure technique shares one same principle: by inducing anxiety-provoking stimuli for the individual to face, one's fear will generally extinguish, new coping skills will be constructed, and thus cognitive changes gradually occur.

The therapist will also use the estimation units to record patient responses. Starting by imagining the lowest feared stimulus combined with a relaxation response, the patients will gradually work towards the highest fear hierarchy and finally learn to manage increasingly painful stimuli [1].

However, in vivo exposure therapy has become a more frequently used psychotherapy than the imaginal in treating specific phobia recently; the reason for this is that systematic desensitization is the inclusion of relaxation but in vivo exposure therapy provides better effects with exposure alone [9]. According to Choy, Fyer, and Lipsitz [10], this therapy works for 80 to 90 percent of patients. Moreover, another new technique, virtual reality technology, has also been effective in treating specific phobias. This technique uses strategies to expose the feared object in a virtual environment. The meta-analysis by Ehring et al. [11] suggested that this therapy is as effective as in vivo exposure therapy based on data from 14 clinical trials. However, based on Ye and Li's Study [12], the application of virtual reality treatment in actual clinical trials also has some challenges. Firstly, the cost of actual virtual equipment is very high. Also, the design and development of virtual scenes are challenging. Beyond this, this technique also has some side effects. It may cause nausea and dizziness among some patients. Thus, the therapist needs to evaluate the patient's health conditions and give them some rest during the treatment process [12].

To conclude, it is easy to find out that psychotherapies are updated with technology development in treating the specific disorder, and all these therapies have effects on reducing the symptoms of the disease with clinical evidence. However, for some treatments, there still needs to be more evidence-based clinical trials to examine their shortages and effects. Moreover, for most current therapy that requires a high technique with expensive cost, there needs to be more research on how to reduce the cost by the equipment needed for the therapy to make it more accessible for patients without solid financial conditions.

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3. Future Implication

Although the existing research and literature show valid and robust evidence about the etiology, treatments, and some negative impacts of the specific phobia, there are still gaps that need to be covered by future researchers. First, the comorbidities of this disorder and other anxiety disorders and even other physical disorders need to be explored and analyzed. For example, how the symptoms of avoidance of the specific disorder are similar or different from the panic disorder could be examined later. Moreover, the limitations of psychotherapies are still unclear. There needs to be more exploration of the supporting evidence to find out the limitations of these techniques to make clarifications and improvements by the researchers. Besides, the cross-cultural influence of this disorder needs to be more focused. This is because the specific cultural might impact people's fearing objects or situations, and the prevalence rates and ages or genders of the patients may also vary with the socio-cultural issues such as traditions, religions, and socio-economic statuses. Lastly, public awareness needs to be raised since many individuals might treat it as a trait or general fear triggered by something disgusting instead of a mental disorder that could be lethal.

4. Conclusions

In conclusion, the etiology of the specific phobia could be seen as preventing individuals from potential threats, which implies that the biological and evolutionary factors contribute to a significant proportion of the disease. There are also gender and age-related factors that influence the prevalence and diagnostic subtypes of this disease. Beyond this, to avoid the negative consequences that could be triggered by this disorder, psychotherapies, including in vivo exposure therapy or virtual reality technology, need to be put into treating this disorder. Some studies prove the external validity of the related psychotherapies. Moreover, more studies, especially evidence-based clinical trials, need to be conducted for future research directions to examine the advantages and potential side effects of some psychotherapies. Also, more research needs to be done on investigating the socio-cultural factors contributing to the variance of the negative impacts related to the comorbidities and prevalence of the disorder. More social advocacies need to be made to raise individual awareness of destigmatizing the disorder.

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