A comparative analysis of arachnophobia and claustrophobia

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Abstract. Nowadays, mental health and the psychological state starts to draw attention from people as the significance of treating them is the same as solving physical diseases. However, unlike depression, phobia – as a type of common anxiety, is often neglected in the wider society. This review aims to highlight the importance of looking at specific phobias in the right way and the necessity of accepting professional advices. It is conducted by collecting and analysing online references and data, comparing two specific phobias: arachnophobia and claustrophobia in three main aspects (causes, symptoms, and treatment). The analysis states the variety of causes of these two specific phobias and how the symptoms affect life severely on a daily basis. Overall, specific phobia is a serious issue that can't be overlooked or underestimated. Professional advice and treatment are necessary and probably the only way to get rid of the specific phobia.

Keywords: Comparative analysis; Arachnophobia; Claustrophobia.

1. Introduction

Phobia is defined as extreme or irrational fear of an aversion to something in the oxford dictionary. It is found that phobia accounted for 20% of all cases of neurosis in psychiatric treatment, and estimated the rate at 0.5/1000 [1]. Lifetime prevalence has been estimated to be almost 10%, with most phobias concerning either animals and/or heights [2]. Subclinical phobias are even more common, with up to 50% of the population reporting an unreasonably strong fear of something [3]. The two phobias in this research are both specific phobias, which was referred to as simple phobias. Specific phobia is intense, excessive and unreasonable. It is often triggered by the presence or even thought of a particular object or situation that poses little or no actual harm but brought fear that is hard or could not be controlled. There are several types of specific phobia, two of them that are commonly recognised are animal phobia and environmental phobia. One of the most classic examples of animal phobia is arachnophobia. For environmental phobia, claustrophobia is probably the one that is the most well-known as it often appears in movies and dramas. These two phobias can be quite representative in forming a comparison that demonstrates the similarities and differences of both types.

This review aims to illustrate the specialty and significance of specific phobias. Making sure that there's no guilt or blame for having specific phobias. Raising awareness of seeking professional treatment once the phobia became serious and brought negative effects to daily life. As most research in the past focused on one or more specific phobias but may not be on every aspect of them and there might a lack of detailed comparison. This review revolves around three perspectives: the causes, symptoms, and treatments of the two specific phobias that have been chosen as examples – arachnophobia and claustrophobia. The investigation is mainly conducted by going through past references, analyzing, and comparing them. Ideally, the review should offer a better understanding of these two specific phobias for the public.

2. Causes

2.1 Arachnophobia

Arachnophobia, the fear of spiders, is a type of animal phobia and a common mental disorder. The fear of this phobia is extreme and overwhelming, it happens when the person encounters a spider or more. Arachnophobia is one of the most common phobias with an incidence of 1.2% and 5.6% in

men and women, respectively [4]. There are many causes of spider phobia, that can be classified into three main groups: personal, cultural, and genetic factors. First of all, phobias that occur in adulthood can be consequences of personal childhood experiences. For example, if a person had been bitten by a spider before or any other negative encountering memories, then the person would have a higher possibility to have arachnophobia. Some people may argue that disgust is being experienced in arachnophobia rather than fear, either one is the negative emotion that can cause discomfort. This uncomfortableness may be caused by another personal factor - the sensitivity of the individual. Merckelbach's investigation determined that people with arachnophobia have higher disgust and contamination sensitivity than others [5]. Therefore, people that are born with higher sensitivity are more likely to fear spiders as the smell, view and other senses toward spiders are much stronger than theirs which make spider a potential stimulus. In a cultural aspect, most people are told by their parents or society members that spiders, as well as other insects, are dangerous and contaminating. Any physical contact with them might pass germs and viruses which could cause unknown diseases, not to mention the possible attack and bite caused by spiders. This kind of cultural influence is ingrained and it might be the fundamental cause of arachnophobia or the general unacceptance of spiders. Last but not least, scientists suggest that the fear of spiders may be an inborn fear. It's still not known the how this fear occurred in genes and how this DNA (deoxyribonucleic acid) might be passed on to the next generation. However, researchers have proven that mother crickets' harrowing experiences may lead to the fear of spiders in uborn crickets. Although this proven result is a large step forward, since spiders are crickets' natural predators, there's no way it can be compared with humans' arachnophobia.

2.2 Claustrophobia

Claustrophobia, or in other words – fear of confined or enclosed spaces. Just like arachnophobia, claustrophobia is also a type of specific phobia. But differently, it is a type of situational phobia. It is an extreme and irrational fear that doesn't match the actual danger presented. Common claustrophobia triggers include tunnels, elevators, caves, MRI (magnetic resonance imaging) machines, trains, airplanes, and any small rooms that have no windows or locked windows. Similar to arachnophobia, claustrophobia also can be caused by genetic and personal factors. However, there are no cultural causes for claustrophobia as society does not associate enclosed areas with negative connotations. The origin of the fear does not derive from what others say, but more from a genetic aspect or what the individual thinks. If one of the parents has claustrophobia, their children are likely to suffer it as well. A suspicious cause of claustrophobia is a gene called GPM6A. This gene encodes a stress-regulated neuronal protein that can be the genetic cause of claustrophobia. Same as arachnophobia, claustrophobia can be the result of a personal traumatic childhood event such as being bullied or abused, being trapped in a confined space for a long time, experiencing severe turbulence on an airplane, or witnessing the reaction of parents experiencing claustrophobia. All these horrible memories might be imprinted and therefore cause possible claustrophobic characteristics in adulthood. Other possible causes of claustrophobia include the overstimulation of the amygdala in the brain by neurochemicals. Emotions and memories associated with fear and stimulation are processed by the amygdala, which might be the reason why some people suffer from claustrophobia.

3. Symptoms

3.1 Arachnophobia

Arachnophobia is more than just a spider fear, it can be very disturbing due to the proliferation of spiders in almost all habitats, including a frequent presence in homes [6]. Therefore, arachnophobia can cause a lot of problems in daily life - clinical examples of severe impairments include not going off to work or struggling to sleep if one discovers the presence of a spider at home, covering one's home in expensive and toxic spider-repellant, refusing to visit the homes of friends and family, or having difficulty to enter the basement or attic in one's own house due to the possibility of

encountering with spiders in these locations [7]. These behaviors may limit the opportunities to go out and socialize or even live a comfortable life as the ones would always be sensitive and alert to the threat that is unlikely to appear. If these actions last for a long period of time, the emotional burden would be too heavy to bear in both physical and mental aspects and would lead to unpredictable consequences. Scientists suggest that people with arachnophobia tend to overestimate the likelihood of encountering spiders, as well as the size and number of spiders. Attention biases to spider stimuli are shown in spider-fearful individuals [8], displaying a looming bias [9], which is the overestimation of the speed at which a spider approaches [10]. This overestimation can then lead to serious physical symptoms, that may be experienced s well during anxiety or panic attack. Physical symptoms of arachnophobia include sweating or shaking, chocking sensation in chest, heart speeds up, expiratory dyspnea or hyperventilation, chills or flushing (red, hot face), stomachache or feeling of "butterflies" in your stomach, giddiness or passing out, xerostomia, freezing or clinging (these are typical symptoms experienced in children, although some adults may also experience these symptoms). These symptoms differ from each individual, some people won't experience any symptoms until they see one or more spiders in person, but it's also possible to experience the symptoms if the person sees a picture of spiders or just thinks about them. People who are experiencing severe arachnophobia symptoms that greatly interfere with their ability to live an ordinary life need to seek help from professional psychologists and follow their advice.

3.2 Claustrophobia

Just like arachnophobia, people that have claustrophobia experience mild anxiety or a panic attack when situate in a confined place, usually it's a feeling of fear or losing control. People with this phobia, or other specific phobias tend to avoid the stimuli in order to control the fear. However, it's not an efficient solution for claustrophobia. By simply avoiding confined areas, life quality can be hugely reduced as those areas are quite often found in daily life. The elevator is probably one of those confined areas that appears the most in everyday life. It's in the shopping mall, office building, hotel, and apartment. Without being in the cabin of an airplane or railway carriage, it's almost impossible to travel to places that are far away. If there is an emergency and the MRI machine scan is needed, but the fear of being in it is way too strong, it might also cause a lot of trouble. According to statistics, approximately 1 out of 100 or 12 out of 1000 people scanned experience a claustrophobia reaction requiring premature termination of the scan [11]. There is no definition or the exact size of a 'small' or 'confined' room in claustrophobia. It can vary depending on the severity of the phobia of each individual. Not only is claustrophobia, but in any other specific phobias, avoiding the stimuli may reinforce the fear and even make it worse. Apart from avoiding confined rooms, people with claustrophobia would spend a fair amount of time looking for the exits for every place they enter. This action would become automatic and compulsive once the phobia grows. Some people even need to stand next to or close to the exit in an enclosed area to gain a sense of security. The physical symptoms when experiencing claustrophobia are similar to arachnophobias. Apart from those listed above in the 3.1 section, other physical symptoms of claustrophobia include hearing non-existed ringing, nausea, hyperventilation, confusion or disorientation, hot flashes, and others. The exact symptoms vary with the individual and the situation, but no matter what symptoms are experienced, it matches with the claustrophobia symptoms and starts to affect the normal living. That's the time to ask for professional advice or go and book an appointment with psychologists or psychotherapists to get an insight into the phobia itself and a clear diagnosis.

4. Treatments

4.1 Arachnophobia

In recent decades, scientists invented many ways to treat specific phobias. CBT (cognitive-behavioral therapy) and exposure therapy are the two types of psychotherapies that are used the most. CBT focuses on managing the phobia by changing the way that the patient thinks, feels, and behaves.

In this case, CBT would help patients to gain a better understanding of the stimuli and change the negative cognitive misattribution related to spiders. Exposure therapy is also called desensitization therapy. Just like the name of it, this is when the patient is gradually exposed to the fearful situation of the specific phobia. To create the ideal condition without letting the patient encounters an actual spider at the early stage of the therapy, VR (virtual reality) is often used. Breathing exercises and relaxation learning are usually involved in exposure therapy as well. As breathing trouble and feeling overwhelmed are two of the main symptoms of arachnophobia. The breathing and relaxation exercises suppose to help the patient learn how to deal with the anxiety and symptoms once encountering a real spider or the one that might appear in VR. CBT and exposure therapy are usually used together in the same treatment plan rather than two, but the plan can vary based on the difference of individuals and the severity of the symptoms. Medications are sometimes prescribed, based on the situation and the needs of the individual. But medication can't treat arachnophobia on its own, it is more like an auxiliary tool for psychotherapies. It is crucial to personalize the treatment plan for each individual, book an appointment with a psychotherapist and stick to the plan. Normally, the whole treatment consists of multiple sessions, there is a gap and adapting time in between, try not to miss any of the sessions and follow the suggestions offered by the psychotherapist. If the patient does need medications, Benzodiazepines, selective serotonin reuptake inhibitors, sedatives, tranquilizers, beta-blockers are the drug classes that are usually prescribed when needed, and there can be others drugs prescribed as well.

4.2 Claustrophobia

The choice of claustrophobia is justified by the unique characteristics of this phobia. It is similar to agoraphobia (a fear of being in situations where is hard to escape or no help available if things went wrong) with a more constricted range of avoidance [12,13]. Moreover, claustrophobia can be incapacitating and disturbing, since enclosed areas are frequently found in daily life. Similarly to arachnophobia, CBT (cognitive behavioral therapy) and exposure therapy are also two of the main and most common treatments for claustrophobia. Apart from these two, another type of psychotherapy that is used to treat this phobia is REBT (rational emotive behavioral therapy). REBT is an action-oriented form of CBT that includes disputing irrational beliefs to help people develop realistic and healthy alternatives. Virtual reality is commonly used to treat specific phobias including claustrophobia as well. This is a gentle and effective approach that can help patients face their phobia rather than simply avoid it. In addition to psychotherapies, medications are sometimes prescribed for a short period of time spent in a confined space that can't be avoided. Such as flying in an airplane cabin, sitting in the boardroom for work needs, and many other occasions. Although seeking professional help is necessary, that doesn't mean nothing else can be done privately. If talking to a stranger such as a psychologist is a challenge, try to talk to a person that is trusted first, and then gradually get used to exposing the phobia to others. Learning mindfulness or other relaxation strategies is also important as these strategies might be helpful when an unexpected situation occurred.

5. Conclusion

Specific phobias have many causes that may be hard to categorized and differ in the situation of individuals. The symptoms of arachnophobia and claustrophobia are wide ranged, from irrationality and overwhelming feeling to physical discomfort. People that suffer from any other specific phobias experience the same symptoms. Although the severity varies, the strong anxiety is always hard to get over. This review aims to eliminate the misunderstandings and potential stigmatizations of phobias. People with phobias must not be blamed for being too timid, no matter which kind of phobia, as all of them are considered uncontrollable anxiety disorder that requires unimaginable effort to deal with. The appropriate and effective treatment is equally important. The key is professional suggestions and resilience, face the fear instead of avoiding it. For future research or analysis, the focus would be on

the treatment development of specific phobias. As treatment approaches are so significant and directly affect the life expectancy of patients.

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