Treatment of Specific Phobia: Acrophobic Disorder (Fear of Heights)

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Abstract

This study was a case study therapy conducted on two subjects who suffered from a specific phobic disorder - acrophobic disorder, generally characterized by irrational fear of heights. The subjects with this behavioural problems were identified within the Calabar South local government. The problem behaviour was diagnosed to be clinically significant enough to call for a therapeutic intervention. The problem was seen to meet the intervention standard and criteria as outlined in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) by the American Psychiatric Association. The behavioural assessment and baseline recording was carried out within the period of two weeks (1st – 14th February, 2021). This was done using the RAC-S model of the instrument adapted from the SAGE Publications, Inc. (2018). In the instrument, "R" is for the target response or behaviour as a result of problem. "A" stands for the antecedents (the triggers of the behaviour). "C" is for the consequences of the problem behaviour, and "S" is the response strength (the frequency per unit of time). Short term and long-term goals were set. Therapy commenced from 15th to 27th February, 2021. The therapists utilised a combination of the cognitive behavioural therapy (CBT) and systematic dysensitisation for treatment. The set goals were evaluated. It was found that the techniques used yielded good results for treatment of "Acrophobic Disorder." It was therefore concluded that the techniques used were very effective, not only for acrophobia but for specific phobias in general. It was recommended that subsequently therapists dealing with acrophobic patients should explore and maximize the benefits embedded in the CBT and systematic desensitisation. However, subsequently, therapists delving into same treatment may explore other techniques to ascertain their efficacies in treatment of same or other specific disorders.

Key words: acrophobia, disorder, treatment, therapy, heights, fear

Introduction

Acrophobia is one aspect of specific phobia. Specific phobia is an intense irrational fear for a particular thing or situation. Acrophobia (irrational fear for heights) is an inherent part of every human. Acrophobia ranges from fear of climbing stair cases, flying in an areophane, climbing a storey building, crossing a bridge and similar situations.

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Acrophobia is derived from the Greek word "acron" meaning height. Many people work around with acrophobia, simply avoiding triggering situations (Holland, 2017). Acrophobia is an overwhelming and debilitating fear of heights (Roberts, 2018). Any person who has persistent and intense fear and nervousness with heights is said to be acrophobic, or is said to have acrophobia. The fear may occur even when the person is merely climbing simple stairs (Healthtopia, 2018).

According to Healthopia (2018), acrophobia may occur simultaneously with other kinds of fear as: Aerophobia - intense fear of flying or being in air, illyngophobia – having spinning and dizziness when looking down from a great height, Climacophobia –fear of climbing or going down a great height, especially stairs or slopes, bathmophobia- extreme fear that can occurs by simply seeing or observing stairs or slopes. Healthtopia, (2018) reported that acrophobia is one of the very common phobias in the world. The fear of heights is ranked second as the most common phobia in the UK after Arachnophobia (fear of spiders).

According to Fritscher (2020), the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) by the American Psychiatric Association's Diagnostic criteria for a specific phobia (which acrophobia falls into) are: unreasonable, excessive fear, immediate anxiety response, recognition that the fear is irrational is not necessarily required, avoidance or extreme distress, life limiting, at least six months' duration, and it is not caused by another disorder.

Causes of acrophobia can be traceable to factors including:

Traumatic experiences from the past, commonly in early childhood. Fear and phobia are used as protective mechanism to protect the body from possible trauma that may happen in the future (Diseases Zoom, 2017). Evolutionary factor; this posits that all humans are born with the fear of heights. It is like a defense mechanism formed by our body as a response to huge heights like during cliff climbing or looking down from a hill. This is a learned behaviour in all humans (Healthtopia, 2018). Difficulty in maintaining balance; this is a biological issue where a person

cannot seem to maintain their balance, leaving them vulnerable to the fear of going off balance when they are at a height (Dems, 2010). Generalisation; this is unintentional learning regarding one type of elevated position such as on flight or stairs, a ladder, a mountain top or a balcony. This can lead to generalization that all types of heights can cause pain, suffering and even death. The anxiety of one type of height can be intense that it can drive someone to develop a fear of all heights (Dems, 2010).

Some symptoms of acrophobia include: Intensely fearful of climbing, going down or being at a height.

Anxiety upon anticipating of great heights.

Immediate reactions such as lowering of the body, kneeling, going down instantly or desperately finding something to clutch when brought to a height.

Complete avoidance of places at height (a person may even avoid a workplace or visiting a friend's place located at a height).

Acrophobia is always accompanied by panic attacks and physical signs such as sweating, trembling, fainting or dizziness, vomiting, trouble in breathing, chest pain, racing heart-beat, numbness around limbs, getting frozen, detachment from reality and feeling that one is getting mad, and more (Healthtopia, 2018). Some other symptoms of acrophobia as outlined by Disease Zoom (2017) include: shortness of breathing, rapid breathing, palpitation, excessive sweating, dizziness, trembling and shaking, unable to think and speak clearly, severe panic, feeling terrified. The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) outlines seven diagnostic criteria for specific phobias (Truschel, 2020), which acrophobia is one. These criteria are:

Marked fear or anxiety about a specific object or situation.

The phobic object or situation almost always provokes immediate fear or anxiety.

The phobic object or situation is avoided or endured with intense fear or anxiety.

The fear or anxiety is out of proportion to the actual danger posed by the specific object or situation and to the sociocultural context.

The fear, anxiety, or avoidance is persistent, typically lasting for 6 months or more.

The fear, anxiety, or avoidance causes clinically significant distress or impairment in social, occupational or other important areas of functioning.

The disturbance is not better explained by symptoms of another mental disorder, including fear, anxiety and avoidance of situations associated with panic-like symptoms; objects or situation related to obsessions; reminders of traumatic events; separation from home or attachment figures or social situations.

When acrophobia becomes pathological, it can be so devastating and debilitating to any victim. People who suffer this disorder like some other phobic disorders can be rendered socially and emotionally dysfunctional for a relatively long time. In fact, this affects effective functioning all round, and therefore calls for urgent need for therapeutic intervention. Acrophobic attack can generate great anxiety and stress in the individual. Most people who are prone to this problem mostly adopt avoidance as coping strategy. Some avoid renting living apartments or offices at high buildings, or taking jobs that have to do with heights. They try as much as possible to avoid contact with height situations. Some who cannot avoid heights for some obvious reasons like job or office locations are on daily basis faced with enormous task of dealing with this problem to function normally and efficiently. A good number of people around us suffer acrophobic disorder and hardly find help from knowledgeable persons or professionals. This problem is always taken lightly and over-looked most times. Organised and purposeful intervention programmes are scarcely provided in our society for victims of acrophobia.

Some approaches for the treatment of acrophobic disorder include: Cognitive behavioural therapy (CBT), coping mechanism, medications, virtual reality (VR), systematic desensitisation and exposure therapy. Cognitive behavioural therapy (CBT): CBT is a therapy focused on recognising the negative thoughts and images associated with fear of heights. The therapist will have enclosed

counselling sessions with the person and tries replacing the negative thoughts with positive ones. The major purpose is to modify the fearful behaviour to a positive behaviour by teaching different skills (Healthtopia, 2018). It must be known that no behaviour therapy can be effective without some form of reinforcement. In reinforcing a client in the process of therapy for acrophobia, it may not necessarily be tangible material items, but could be words of encouragement, praise, a nod of approval and appreciation, a smile of appreciation of improvement and so on.

Coping mechanism: In this approach, the individuals start facing their fears by exposing themselves to heights gradually. The person starts by slowly exposing and adjusting higher little by little until they can endure, and the feeling of fear starts to diminish. The individual starts to think positively when he/she starts to feel panic.

Medications: Drugs like anxiolytics (Anti-anxiety) and anti-depressive are sometimes used to relieve symptoms related to acrophobia (Disease Zoom, 2017).

Systematic desensitization and exposure therapy: According to the Healthtopia (2018), this has been considered as a very effective therapy in acrophobia. The therapist exposes the person to the feared object, and tries to reduce the level of fear gradually. In the case of acrophobia, the person may be given task related with heights such as climbing stairs. The therapist would learn why and how the person gets fearful. Through regular sessions, the therapist would increase the height and try reducing the level of fear. One of the effective techniques used in the whole process is relaxation method. The therapist would teach relaxing ways such as breath control, muscle relaxation and mental visualisation to the person to deal with the fear. The main aim is to instill relaxing habit in the person when confronted with the fear and panic attack.

Virtual reality (VR): The term ‘virtual reality’ basically means ‘near-reality’. This could of course mean anything but it usually refers to a specific type of reality emulation (Virtual Reality Society, 2017). Virtual reality is an artificial environment that is created with software and presented to the user in such a way that the user suspends belief and accepts it as a real environment. On a

computer, virtual reality is primarily experienced through two of the five senses: sight and sound (Rouse, 2015).

According to the Virtual Reality Society (2017), the affected person wears a heard mounted display (HMD) complete with a tracking system and headphones. They are shown a series of images as part of a virtual environment which they interact with. For example, the HMD will display a virtual balcony or another similar situation in which the person is placed at a height and appears to be looking down towards the ground. The tracking system within the headset monitors the movement and position of the person's head as they look around their virtual environment, example looking downwards. As they tilt their head the images change to reflect the change in perception which also adds a sense of realism.

The therapists monitor clients' physical reactions by means of biofeedback, such as heart rate, skin conductivity and respiration. This provides data on the person's reactions to the object or situation of fear and level of stress and anxiety. The therapist recommends that the person undergoes this treatment several times so that they become familiar with heights and how to deal with similar situations. They learn how to change their thoughts and behaviours so that they are better placed to deal with such situations. Choi, Jang, Ku, Shin and Kim (2004) noted that several studies for treating patients with acrophobia using virtual reality therapy (VRT) have been relatively good. There has been rapid improvement of phobic symptoms among patients who received VRT.

According to Barrus (2016), in a study at the University of Amsterdam, Clinical Psychology Department used clinical hypnosis of virtual reality exposure to treat acrophobia, thirty-three participants were separated into three groups (head mounted display group, a control group, and the computer automatic virtual environment) for a period of thirty days. Each session lasted for ninety minutes. Four virtual environments were used, these are: going to the local mall with four floors, climbing a fire escape with a group, a virtual commercial building with eight floors, climbing a roof garden. Each participant had to record their level of anxiety during each virtual reality location.

After a four week's follow-up, researchers noted that using the virtual environment was better at adjusting anxiety versus no treatment at all.

Moldovan and David (2014) conducted a therapy session for 32 acrophobic subjects in the United States of America, to investigate the efficacy of one session treatment of Virtual Reality Therapy (VRT) combined with Cognitive Behavioural Therapy (CBT) for patients with social phobia, flight phobia and acrophobia. Participants were grouped into treatment (VRT and CBT) and control groups. Pre-test was conducted to ensure they met the Diagnostic and Statistical Manual (DSM-V) criteria. In the session, they used the VRTCBT. As earlier explained, virtual reality is an artificial environment that is created with a software and presented to the user in such a way that the user suspends his belief and accepts it as a real environment. Cognitive behavioural therapy is a cognitive reorientation and restructuring to change irrational beliefs. Following treatment and evaluation of the overall treatment efficacy, the analysis yielded no significant differences between the pre-test and post-test of the treatment group (VRCBT) and the control group on acrophobia.

Acrophobia becomes a problem when the fear is not commensurate to the feared situation or heights, and the fear, anxiety, or other accompanying symptoms become clinically significant and pathological to the extent of rendering the individual incapacitated or ineffective to function maximally, and cope with work situation or daily living. An individual is ascertained acrophobic if symptoms have become part of the individual for up to at least 6months. Many people have abandoned jobs, educational programmes, avoided paying visits to some important places and so on as a result of fear of having encounter with heights. Acrophobic individuals can be rendered dysfunctional for a considerably long time when they have an encounter with feared situations. Many people move around with acrophobic disorder that need therapy intervention, but unknown to themselves that there is a remedy. This therapy was conducted on the subjects in this study to eliminate or reduce this behavioural disorder and substitute it with a better social behaviour.

Methodology

The study design was the case study design. Participants were accidentally encountered in the locality. The therapists developed interest in their problem, developed an interaction with them, where they were informed of the intent for intervention, which was consented to by the clients. The clients' parents were also contacted and informed to seek their consents for the subsequent intended intervention exercise, which was granted. The therapists worked with the clients to develop the goals and programme of the therapy. The instrument used for data collection was the RAC-S model which measures the target response (R), the antecedents (A), the consequences of the behaviour (C), and the strength or frequency of the behaviour (S). These data were obtained through interview with the individuals over a period of 2 weeks. A pre-test was conducted on both individuals to affirm the data obtained. The clients in question in this therapeutic session were adolescents who had exhibited unusual irrational fear for heights. In this study, for reason of confidentiality, the subjects' data are simply presented as follows: Client A: Age: 16 years Sex: Male. Client B: Age: 18 years Sex: Female. Area of residence: Calabar South Local Government Area.

One of the therapists had a personal encounter with them within the area of residence and observed the irrational fear. The observer asked them to narrate their experiences that could lead to the fear of heights, which they did. The observer therefore initiated interactive processes in which they were somehow convinced that the fear was baseless and that there was need for further exercise to prove this, as this beginning of cognitive reorientation was still inadequate for a reasonable behavioural change. The observer also convinced them to go into a therapeutic programme to see how they would feel. Other two experienced therapists were requested to lend their skills and experiences in the therapy sessions, which they did.

The steps taken were as follows:

Step 1: Identification of a case of behavioural concern. Discussion with the individual and meeting with parents letting them know about the intention and seeking for permission to go into intervention. Both the parents and clients were made to know about the goals of the exercise.

Step 2

Behaviour observation and data or baseline recording

Duration of observation: Thirteen (13) days

Problem behaviour: Fear of heights (acrophobia). It occurred anytime the individual had the chance of climbing high buildings, crossing bridges or crossing high pedestrian walk-way.

Target observed behaviour: Closing of face, avoid looking down, shivering, anxiety, tension, breath increases.

Antecedent events: When with friends or unavoidably made to climb to a reasonable height.

Negative consequences: Shivering, increased breathing rate and heart beat increased, dizziness and similar symptoms.

Table 1: Daily behaviour recording chart of clients

Days	Target response(R)	Response strength (S)	Antecedents(A)	Consequences (C)
Sat. 1/2/2021	A: Tension, faster heartbeat	A: once	A: At school	A: Tensed
Sun. 2/2/2021	A: Partial closing of eyes/face. B:holding of breath, dizziness	A: once B:twice	A: Visited a neighbour living in a storey building. B: Crossing a bridge	A: Tensed, poor coordination. B:Tensed
Mon. 3/2/2021	Nil	Nil	Nil	Nil
Tues. 4/2/2021	A. Dizziness, holding somebody.	A: once	Going through a walk-over	Tension, poor coordination.
Wed. 5/2/2021	Nil	Nil	Nil	Nil
Thur. 6/2/2021	A: Avoidance	A:once	Encounter with a walk-over	A:Relief
Fri. 7/2/2021				
Sat. 8/8/18	A: Avoidance of the situation, staying behind	A: once	To cross a deep gully with local bridge.	Tensed
Sun. 9/2/2021	B:Avoidance	B:once	Storey building	Relief
Mon. 10/2/2021	Nil	Nil	Nil	Nil
Tues. 11/2/2021	A: Dizziness, faced down. B:Dizziness	A: twice B: once	A: Crossing a bridge in a bus. B: At a storey building	A: Bus occupants laughed. B: Dizziness, holding someone
Wed. 12/2/2021	Nil	Nil	Nil	Nil
Thur. 13/2/2021	B:Fear	B: Once	B: climbed a storey building	Tensed, held breath.
Fri. 14/2/2021	Nil	Nil	Nil	Nil

Observations:

It was observed that client A had an encounter with situations of fear 7 times (response strength) within the two weeks' period of behaviour observation. The consequences of the problem were tension, poor coordination and functioning, relief on avoidance of the feared situation (which is rather a negative reinforcer), attraction of laughter from immediate audience, holding of breath and similar reactions.

For client B, the response strength was 5 times. The consequences included tension, relief on avoidance, dizziness, grabbing or holding, breath holding and similar reactions. The therapist saw these as serious enough to need intervention to forestall further greater consequences on the victims. These target responses were strong enough to be pathological, meeting the clinical criteria diagnosed and identified by the American Psychological Association in the Diagnostic and Statistical Manual of Mental Illnesses (DSM-5).

Step 3: Setting the goals of therapy

1. Short term goals:

Clients should be able to:

i. Accept that their beliefs and feelings are irrational.

ii. Appreciate and consent to the proposal for intervention.

iii. Co-operate and give useful information about their experiences and behaviour in the process of the intervention exercise.

iv. Make some efforts toward self-help.

1. Long term goals:

By the end of the intervention or therapy, the clients should be able to:

i. Substantially rationalise and counter the false beliefs resulting in acrophobia.

ii. Access heights with very minimal fear (for the fact that fear of heights is innate in humans)

Step 4**:** Development and application of therapy programme

(15th -27th Step February)

1.Therapy approaches: The approaches that were adopted in this intervention process were the Cognitive Behavioural Therapy (CBT) and the systematic desensitisation techniques. The CBT approach focused on making the individual change his false and irrational beliefs and behaviour about the object and situation of fear. The systematic desensitisation technique focuses on gradually and systematically making the individual to face the real object or situation of fear until the fear completely or reasonably diminishes.

2.Schedule of meeting between therapist and the client.

3.The therapist with the consent of clients, and knowledge of parents scheduled meetings as follows:

15th -27th February, 2021

Date	Time/duration
15th	5-5:30pm
18th	5-5:30pm
21st	5-5:30pm
24th	5-5:30pm
26th	5-5:30pm
27th	5-5:30pm

After the informed consents of clients and their parents, the therapist started the formal therapeutic intervention sessions with clients on the 15th as in the schedule. Bearing in mind the approaches to be employed in the process of therapy.

15th February:

The therapists bearing in mind the cognitive behavioural therapy, cum the Rational Emotional Emotive and Behavioural Therapy (REBT) by Albert Ellis, commenced the intervention. Ellis's theory known as the ABC theory states that A is an event that occurred, B is one's interpretation of the event, and C is one's reaction to the situation. The theory notes that A is not the cause of C, which is often irrational behaviour as a result of the interpretation of A as being awful, but B which is the way one interprets A. Based on this, the therapists explained to the client that their fears

might be baseless. It was a session of cognitive re-orientation and disabuse of the way of thinking and feeling based on whatever experience. At this first session, there was no exposure. The clients were asked to go and visualise themselves being at a height of about a two-storey building, and prepare his mind towards a visit to such buildings.

18th February

Exposure to the feared situation: After a brief interactive session, the therapists with the clients made their way to a nearby shopping mall in a storey building. On reaching the entrance, the therapist made the clients to do some breathing exercise, muscle relaxation and tension reduction exercises. After these, the therapists held the client's hand and they moved gradually to the first floor. The therapists continually gave the client emotional support. The clients were asked to feel relaxed and look out of the mall. After moving together to and fro the balcony, the session was ended.

21st February

Therapists had interactive session with clients, after which they made out for another exposure exercise. One therapist was at the front, one at the middle side and the other at the rare of the clients while going through some heights around the vicinity. Client's pulses, anxiety levels and phobic reactions were closely monitored and were continually given emotional support (a form of reinforcement which is very critical in any form of behavioural change).

24th, 26th and 27th February.

For these last three days, therapists went out with the clients, guided and watch them did the exercise themselves while therapist observed and recorded how they felt and the feelings they reported about themselves. Clients reported a considerable improvements marked by a considerable reduction in the level of anxiety, dizziness, frightful walk, grabbing persons or objects, breath holding and similar symptoms.

Post-test

After about two weeks, the clients were again asked to come for a post-test to confirm for the last time the effectiveness of therapy. The therapists watched clients while they follow

instructions and performed heights climbing exercises. The result showed a greatly sustained reduction in this phobic disorder. Both the short and long- term goals were accomplished. Therapy session was therefore ascertained effective and closed.

Conclusion

From this therapeutic programme, it could be concluded that for the treatment of chronic acrophobia, a combination of the cognitive behavioural therapy (CBT) and the systematic desensitisation techniques prove more effective. These can leave a more lasting experience and solution as compared to any other.

Recommendations

It is therefore recommended that subsequent studies and therapies in the treatment of acrophobia or specific phobic disorders may explore other techniques and approaches outside cognitive behavioural therapy and systematic desensitisation to verify their efficacies in treatment of specific phobic disorders. However, the cognitive behavioural therapy and the systematic desensitization provide the fulcrum for treatment of specific phobia in general. Therapists and other clinicians carrying out treatment of the different forms of specific phobias or behavioural change should make greater use of the cognitive behavioural therapy (CBT) in combination with systematic desensitization for maximum results. If for reasons beyond the therapist's control this seems not to yield the desired results, therapists should make referral to professionals in otyherr fields like the biomedical therapists. In combination with the cognitive and behavioural therapy and systematic desensitsation, students and practitioners in the area of treatment of specific phobia should explore more techniques, as there is a pool of other approaches yet to be utilized by practioners.

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