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Review Article

A Review of Psychotherapy for Panic Disorder

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ABSTRACT

Panic Disorder (PD) is a debilitating disorder characterized by frequent panic attacks. People affected by PD often have difficulties with controlling their emotions. Due to its severity and chronic course, psychological management of Panic Disorder has gained considerable interest and clinical importance in the last few decades. Different types of psychological treatments have been developed to help people with the Panic disorder. Several empirically supported psychotherapies have been identified for panic disorder, which are theorized to ameliorate symptoms by targeting its underlying psychological mechanisms. In this review, we have reviewed several psychotherapeutic approaches such as panic-focused psychodynamic psychotherapy, supportive psychotherapy, psycho-education, relaxation training, exposure, cognitive restructuring, and mindfulness strategies. The present paper aims at briefly reviewing the understanding of psychopathology and psychotherapy with respect to PD. With this goal, we will first describe the concept of panic disorder, followed by the psychotherapeutic approaches and their empirical evidence. Finally, we will suggest some considerations with respect to the future research in the treatment of the PD.

KEYWORDS: Panic Disorder, Psychotherapy, Cognitive Behavior Therapy, Exposure

INTRODUCTION

Panic Disorder (PD) is common in the general population and is a chronic and often disabling condition, with a lifetime prevalence rate of 1.6 to 5.2 percent.[1] Furthermore, PD accompanied by agoraphobia is found to be associated with heightened symptoms severity and worse treatment outcomes.[2] Many risk factors predicted the development of agoraphobia in people with PD including being female, social anxiety disorder, dysfunctional cognitions, dependent personality characteristics.[3] PD, with or without agoraphobia is found to have high prevalence, and co-morbidity with other psychiatric conditions such as phobias, generalized anxiety disorder, substance abuse, depression, bipolar disorder and suicidal attempts.[4-6]

PD is a major public health problem that is characterized by the presence of abrupt/sudden onset of recurrent unexpected anxiety attacks that are distinct episodes of intense fear or discomfort, accompanied by a variety of symptoms.[7,8] The cause of PD is not fully explored due to its probable heterogeneous nature. However, one of the most attributed factors is the person's tendency to misinterpret catastrophically certain normal bodily sensations which seems quite plausible.[9,10] This understanding focuses on how catastrophic misinterpretation of certain normal bodily sensations gives rise to a pattern of reactions and subsequent panic symptoms. Researchers have also argued against some psycho-physiological underlying triggering or maintaining factors such as increased interoceptive attention to the internal cues such as thoughts, images, emotions, and bodily sensations especially the cardiac perception can precipitate panic attacks and subsequent avoidance behavior.[12-13] Furthermore, the repeated experiences of certain bodily sensations also gets associated with an increased sense of probable threat or danger and this psychological vulnerability seems to play

crucial role in the development and maintenance of the PD.[14,15,10] Thus, acquisition of panic related fear with subsequent development of "fear of fear", maintenance of avoidant behavior, and cognitive biases are then addressed in the cognitive behavioral therapy sessions.[16,10]

Anxiety sensitivity is also believed to contribute as an another major causal factor for PD because it induces fear reactivity to normal physical sensations that give rise to increased bodily sensations, such as hyperventilation,[17] carbon dioxide inhalation[18] and balloon inflation[19] in normal population. In a review, panic self-efficacy has been found as an intermediate agent in the CBT outcome studies for PD.[20] Apart from these, many standardized self-report inventories have also been utilized that gives useful information for underlying psychopathology and subsequent treatment planning along with providing elements of therapeutic change. Among them, the Anxiety Sensitivity Index[21] and the multidimensional Anxiety Sensitivity Index–3 [22] have been widely administered as a measure of dysfunctional beliefs about certain bodily sensations.

With respect to the recovery process of PD, habituation plays a crucial role which is our nervous system's natural tendency to numb out to stimuli through repeated prolonged exposure with a new or avoided stimulus.[23] In PD, the active and passive avoidance behavior contributes to the failure of the habituation process and reflects increased sensitization to internal cues and cognitions. Persistent requests for reassurance for bodily check-ups is an active avoidance that also plays an important role in the maintenance of PD psychopathology. Hence, exposure based interventions are the crucial elements in CBT for PD, especially when avoidance is a noticeable feature. Further, as an adjunctive treatment exercise in both aerobic and non-aerobic forms has shown some evidence to reduce anxiety symptoms.[24]

PSYCHOTHERAPEUTIC APPROACHES

Psychodynamic Therapy

Initially, the Panic disorder was viewed as intractable. Case studies related to psychodynamic theories of unconscious wishes produced several formulations and descriptions of Panic disorder but the treatments could not have reliably resulted in a significant reduction of its symptoms. However, there is some evidence for psychodynamic therapies especially panic-focused psychodynamic psychotherapy has demonstrated some preliminary efficacy for panic disorder patients.[25] Furthermore, in a previous study; it was found to alleviate associated psychosocial functional impairments and poor quality of life in panic disorder.[26]

Supportive Therapy

Supportive therapy is a dyadic intervention that is used achieve symptoms relief and maintain emotional equilibrium with an objective to restore or improve self-esteem and adaptive skills.[27,28] Being non-specific in nature, supportive psychotherapy of PD is not different from the measures used with any other disorder. Client-centered psychotherapy also shares many supportive measures in which a specific form of therapeutic relationship and a belief in the client's ability for self-healing are considered to be powerful agents that lead to symptom reduction and overall change.[29] Although the data are very scarce regarding its efficacy, the available evidence does not omit the possibility of supportive psychotherapy in the treatment of PD with agoraphobia.[30,31] In our review CBT and its derivatives have shown good empirical support in several studies that are as follows;

Cognitive Behavior Therapy (CBT)

Initially, psychotherapeutic approaches for PD were relatively nonspecific in nature which primarily included relaxation training.[32] Although, it was presumed that pharmacological treatment is needed for the management of panic attacks, the psychological management of PD with agoraphobia became specific since the emergence of CBT that mainly focused on exposure-based interventions to target anxiety attacks and subsequent avoidance behavior.

Psycho-education is an important component of CBT which helps patients gain insight and understanding about psychological problems. In the treatment of PD, psycho-education about the nature of the panic disorder, the causes of panic, and the subsequent role of anticipatory anxiety in causing additional panic attacks provide a better understanding of the illness to the patients which itself can produce symptoms relief.[10,33,34]

Relaxation techniques are the parts of overall CBT protocol and probably the most studied method in the psychological treatment of the PD. Within the context of breathing exercises, several studies highlighted the application of abdominal or diaphragmatic breathing as central technique.[35] In breathing retraining exercise, capnometry-assisted respiratory training (CART) has also been found effective in targeting respiratory dysregulation in PD, particularly hypocapnia.[36,37] which is a brief, 4-week training program. However, outcomes of breathing exercises in the PD management are mixed.[36] Progressive muscle relaxation (PMR) is usually applied to panic patients which leads to reduction in physiological arousal.[38] Another modified version is applied relaxation which is slightly different from other relaxation techniques[39] and has shown good outcomes in the reduction of frequent panic attacks.[40,41] Apart from relaxation techniques, the behavioral therapy of PD generally consists of imaginal exposure, in vivo exposure, interoceptive exposure, and virtual reality exposure in

graded fashion in order to reduce the symptoms.

Cognitive behavior therapy is based on the premise that certain dysfunctional cognitions cause undesirable patterns of emotions and behavior. In PD, CBT is usually progressed with the case formulation and psycho-education through which we help the patient to understand the negative effects of reassurance-seeking as an active avoidance. Subsequently the patient is encouraged to explore the relationship between PD symptoms and reassurance seeking behavior. Furthermore, other health professionals may also unintentionally reinforce the problem by providing reassurance repeatedly. Therefore, in the management plan this issue should also be resolved. Patients can also be suggested to reduce the frequency of consultations due to the constant fear of missing something important. Several meta analysis and outcome studies of CBT have highlighted superior effect sizes with respect to CBT for PD and also revealed the efficacy and enduring therapeutic effects for even resistant cases of PD with and without co-morbidity of other clinical conditions.[42-44]

Cognitive-behaviour therapy (CBT) for PD usually consists of various skill elements such as relaxation, diaphragmatic breathing exercise, cognitive restructuring and exposure to internal and external cues. Exposure-based strategies especially the interoceptive exposure has been found to be the robust tool for PD with and without agoraphobia emphasizing its efficacy for the disconfirmation of dysfunctional beliefs about the bodily sensations and the facilitation of extinction process of conditioned anxiety or fear responses.[10,23,45,46,47] A recent study with respect to Internet-delivered cognitive behavioral therapy has shown significant effect as same as face-to-face CBT sessions for panic disorder subjects.[48] A recent meta-analysis revealed that as compared to progressive muscle relaxation and virtual-reality exposure, interoceptive exposure was associated with better treatment efficacy and acceptability.[49] Furthermore, in another recent review, the greatest amount of empirical evidence has been found for interoceptive exposures and cognitive restructuring, whereas relaxation training appears to be associated with poorer outcomes.[50]

A recent study with respect to Internet-delivered cognitive behavioral therapy has shown significant effect as same as face-to-face CBT sessions for PD patients with presence or absence of agoraphobic condition.[48] Furthermore, recent studies have suggested that in spite of a few failure cases, some factors or variables predict good improvement in CBT for PD especially the incorporation of Motivational Interviewing (MI) to CBT can lead to improve therapeutic outcomes, as compared to CBT alone. [51-53]

Despite the recommendation for the use of CBT as the first line psychotherapeutic intervention in PD, many other psychological interventions have also been proposed as alternative psychotherapeutic choices.[54] Several studies empirically have shown the efficacy of CBT especially its exposure component as a stand-alone intervention for PD.[55-57] There are also some CBT manuals available for PD which are usually represented by the sessions consisting various structured cognitive and behavioral interventions.10,45 Although CBT module for PD has been found to be of moderate efficacy, usually 25% and above dropout rates are not uncommon during the therapy sessions.[45]

Third-wave Therapies

Third-wave therapies refer to a family of different therapeutic approaches emerged from the cognitive-behavioral module which share the common goal of dealing with the form of thoughts instead of their content in a nonjudgmental acceptance way. Among these, Mindfulness-Based Stress Reduction (MBSR), Mindfulness-Based Cognitive Therapy (MBCT) and Acceptance and Commitment Therapy (ACT) have been found to be useful in the treatment of anxiety related disorders. However, currently the empirical support of these therapies for PD is very limited.

MBSR has been found to be efficacious in various clinical conditions including cancer, chronic pain, and independent emotional problems especially the anxiety ones.[1-3] Mindfulness strategies are assumed to be beneficial in dealing with PD symptoms and its underlying factors such as high AS, dysfunctional attitudes, and avoidance behavior.[19] ACT has been found to be a viable treatment option for treatment-resistant PD with agoraphobia patients and may enhance the acceptability of and engagement in exposure therapy in PD. [58-61]

Studies with respect to the effect of MBCT on PD have resulted in reducing intolerance to uncertainty, anxiety sensitivity (AS), and other prominent symptoms in PD.[62-66] Furthermore, previous studies have also shown its long term effectiveness on PD.[64-65] Recently, a five-year longitudinal study has revealed an enduring long term therapeutic outcome of MBCT in patients with PD.[67] Many adapted modules of MBCT have been developed for anxiety disorders and despite several methodological limitations, recent studies have supported their use in the treatment of PD. [68-72] Although, currently the data related to its efficacy are scarce, it has shown some evidence for the treatment of panic disorder.[73] In other findings, MBCT has been found to be effective at ameliorating both anxiety and depressive symptoms in patients with panic disorder.[74] However, well-designed, randomized controlled trials are needed to establish their implications.

CONCLUSION

In general, psychotherapy is found to be more effective than usual treatment in reducing Panic disorder symptom severity. The recommended and widely used psychotherapeutic treatments for PD may usually include the diverse variations of exposure techniques alone or in

combination with cognitive strategies, and the elements of third wave therapies. Evidence based psychotherapies especially CBT is an effective well known intervention for PD that heavily relies on exposure-based strategies with cognitive restructuring. Initially, psychodynamic formulations were made but they failed show efficacy in several studies. Subsequently, several behavioral interventions were developed to alleviate panic attacks, with varying degrees of success. They were aimed at reducing panic attacks and subsequent avoidance behavior by exposing the patient to anxiety-provoking situations until habituation occurs. Nevertheless, there has been observed a number of limitations in the studies on the efficacy of these interventions.

Firstly, most patients with PD are also found to have comorbid clinical disorders, but many studies typically excluded substance abuse or bipolar disorder conditions which further limits its efficacy for comorbid psychiatric conditions. Secondly, a recent systematic review and meta-analysis have revealed that suicidal attempts in panic disorder subjects were nearly four times more as compared to other conditions which warrants further attention to its management.[75] Apart from this, a review has also shown that despite the high prevalence and availability of different treatment approaches, almost one-third of all PD patients still suffer from PD symptoms even after the appropriate treatment.[76] However, some short-term symptom reduction has been reported with augmentation of the pharmacological treatment along with ongoing CBT sessions in treatment-resistant PD.[75] Finally, the evidence from a wide variety of sources suggests that that, though the focus of research in psychotherapeutic interventions for PD in the last few decades has shifted away from traditional CBT approaches to mindfulness-based interventions, the main choice of CBT as the first-line treatment for PD remains the same. Longitudinal studies are in progress to find the long-term effectiveness of these psychotherapeutic interventions. However, further controlled studies of cognitive-behavioral and mindfulness-based interventions of PD are warranted to explicitly establish its treatment efficacy. Future attempts should also be aimed at figuring out as which of the elements of cognitive-behavioral and mindfulness-based treatment would be having more lasting effects.

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