The Theory and Efficacy of Cognitive Behaviour Therapy in Bipolar Disorder

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Abstract. The previous research showed that psychological treatment is effective for people who have a mental disorder, such as bipolar disorder. Bipolar disorder is a severe disorder that the patients can have two extremes of mood episodes, which are depression and (hypo)mania. Cognitive behavioural therapy is a talking therapy that helps patients rectify their patterns of thoughts and behaviours. Nowadays, therapists would like to use cognitive behavioural therapy as an adjuvant therapy with medical treatment. Therefore, studying the theory and efficacy behind cognitive behavioural therapy is important. This review is based on previous studies, which are about cognitive behavioural therapy in bipolar disorder. Cognitive distortion is the factor that can be used in cognitive behavioural therapy, to analyze the incorrect pattern of thinking and behaving in patients with bipolar disorder. The deficits in social cognition and coping skills caused by bipolar disorder are also key factors used in cognitive behavioural therapy. Cognitive behavioural therapy is effective to treat insomnia, which is one of the symptoms of bipolar disorder. Child- and family-focused cognitive behavioural therapy is effective for patients with pediatric bipolar disorder. A limitation of previous research is that medicines could affect the actual efficacy of cognitive behavioural therapy, which are not taken into account. Plus, the lack of intervention research on life quality in bipolar disorder patients is another limitation. This review can provide advice to future research in the field of cognitive behavioural therapy and bipolar disorder.

Keywords: Bipolar Disorder · Cognitive Behavioural Therapy · Pediatric Bipolar Disorder

1 Introduction

With the awakening of the concept of mental health in these decades, people are becoming more and more aware of mental disorders in society. Therefore, bipolar disorder became a term that almost everyone heard. However, despite this situation, to date, effective treatments for bipolar disorder are still developing. Accordingly, this paper reviewed previous research and provided future recommendations to help people understand cognitive behavioural therapy and bipolar disorder.

According to DSM-5, bipolar disorder is a mental disorder that belongs to mood affective disorders, in which includes two different extreme mood episodes that are mania and depression [1]. Bipolar disorder has four main branches, which are bipolar I
disorder, bipolar II disorder, cyclothymic disorder, and other specified bipolar disorders [1]. Bipolar is a complex and chronic disorder [2]. Patients present different symptoms when they are in different episodes or mixed episodes. Patients with bipolar disorder usually have two extreme mood episodes and swing between them. Patients with bipolar disorder have significantly lower life quality than typical controls [3]. As a disorder with a severe impact on dysfunction in social life and personal life, researchers are paying more attention to bipolar disorder [4].

Although medicines proved to be the first line of treatment for bipolar disorder, psychological treatment is still recommended to improve the life quality of the patients. Cognitive behavioural therapy (CBT), which is belonged to the psychological treatment, can be one of the most valuable treatments for reducing cognitive errors. Medicines are not enough for patients with bipolar disorder. Talking therapy is the most common adjuvant therapy accompanying medical treatment. CBT’s purpose is to help patients break the vicious circle of negative feelings by breaking thoughts and actions down into small segments. CBT is focusing on the problem in present rather than the past.

A previous study also showed the significant difference between sexes in bipolar disorder [5]. Males tend to report manic or hypomanic episodes, and females tend to report major depressive episode in hospitals [5]. Women, who are pregnant and have given birth, have more challenging conditions compared to others [6]. Although bipolar disorder rarely appears before adulthood, pediatric diagnosis rates have risen in recent years [7]. Teenagers showed mixed bipolar disorder symptoms with risk-taking behaviours [8]. Stigmatization of bipolar disorder is not only external but also internal [2]. Evidence shows that bipolar patients tend to have a comorbid anxiety disorder, due to the stress related to stigma [9].

In the past, children and adolescents were likely to be not diagnosed with bipolar disorder. Nevertheless, the incidence was more common nowadays [7]. Compared to adults, teenagers had a significantly higher risk of mixed bipolar disorders [8]. Teenagers with bipolar disorder had higher scores on depression and a significant rate of lower psychotic features [8]. Children and adolescents patients were likely to show severe mood dysregulation, which might mislead the diagnosis [7]. Pediatric bipolar disorder still needs more research, to help patients be diagnosed earlier and let them get the treatment as soon as possible.

Psychological treatments, such as talking therapy, are helpful as well [10]. Psychoeducation, as known as a psychological therapy, can reduce the risk of impatient care [11]. Bipolar disorder patients can improve their situation by changing lifestyle as well, which means doing some exercises and having a healthy diet [10]. Even though bipolar disorder is a lifelong illness, patients still can be healthier and better after treatment. Those treatments are interactive and indispensable.

The situation of unstable mood states increases the difficulty of having an acceptable life quality. How to live better could be an important topic that patients and their therapists are still working on. Bipolar patients experience poor physical health situations, low quality of daily life, and disturbed social life [12]. The two extreme mood episodes can cause patients to overeat or lose their appetite [12]. Stigma also caused patients’ life quality to be lower compared to others. Previous research also showed that patients’ relative hypocortisolism and hypercortisolism would cause depression and lead to their
life quality being reduced [3]. The influence was destroyable if the patient did not receive effective treatment.

Stigma was related to the severity of bipolar symptoms. Stigma is divided into external and internal types. The external stigma is correlated with a stressful life, which means a low life quality and a lack of social support [4]. Bipolar disorder also brought tremendous stress to their family. Some families refused to have children due to the stigma of bipolar disorder [13]. In addition, people’s stereotype towards bipolar disorder patients was violent and dangerous [14]. However, if a celebrity had bipolar disorder, people would know better about bipolar disorder and reduce the external stigma to the patients [14]. Furthermore, internal stigma, known as self-stigmatization, was also a central part that caused the patient’s low life quality [2]. When people label patients with stereotypes and bias, patients cannot help but think of themselves as such. Therefore, their life quality was reduced.

CBT is the preferred non-drug intervention for patients with bipolar disorder [15]. CBT is a talking therapy that manages the issue of patients by changing their way of thinking and behaving. CBT can increase the coping skills to stressful life events [16]. Therefore, CBT can be one of the most effective ways of improving the life quality of patients. Studying the relationship between bipolar disorder and CBT is necessary for helping patients improve their life quality. CBT is an important field that need to be proved in its efficacy to bipolar disorder. As a severe mental disorder, bipolar disorder needs attention from people. It is important and necessary to review previous studies in the field of bipolar disorder and CBT, to make improvements and give advice in this area. This review analyzed the previous research, to discuss the efficacy of CBT on bipolar disorder. Furthermore, CBT needs to be further proven to be effective. It is important to discuss the efficacy of CBT on pediatric bipolar disorder. However, there is not much research to show the relationship between CBT and pediatric bipolar disorder in the past. The relationship between CBT and bipolar disorder is still a field that needs to be explored further. This research analyzed previous studies in the field of CBT and bipolar disorder and can give important advice to the future intervention research.

2 The Theories Behind CBT for Bipolar Disorder

2.1 Cognitive Distortions and Bipolar Disorder

The reason that causes cognitive distortion is multiple and complex. Cognitive distortion means people use incorrect thoughts and biases that were deviated from the original and usual way of cognition. For example, patients with bipolar disorder who are in the manic or hypomanic period would wrongly consider that they have a superpower compared to normal people, which could lead patients to take the risk in their life and make their life quality decrease. According to the specific treatment, which is used in CBT, the method in CBT could include the cognitive distortion as CBT’s background. In the study by Mansell et al., a new cognitive approach to understanding the moods swing and bipolar disorder was introduced by qualitative research with the historical method, which reviewed lots of research about CBT in bipolar disorder [17]. This research also brought a new model of the thinking way of patients, especially those who have bipolar disorder. This model includes four major periods and is connected by the dotted line,
which means the direct influence on the internal state, and the unbroken line, which means the confirmation of the extreme personal appraisals on the internal state. The first period is the change in the internal state caused by the event trigger. The second period is several extreme personal meanings of appraisals, which interplay ascent behaviours and descent behaviours. The third period is self-beliefs and the beliefs of worlds and others. The fourth period is life experience which includes the current environment. This model is the fluctuation of moods of the internal state of patients with bipolar disorder whose moods are going to swing and change strongly. This model has clinical significance because it has the same strategy as CBT. This study showed the issue of the thinking way of patients could from the vicious circle of this model [17].

Cognitive error is defined as how people cognize an event in the wrong way. For example, when patients with bipolar disorder whose weight is overweight or obese hear that others want them to lose weight, they would like subconsciously and negatively infer and think that the speaker is full of malicious. It means that patients might believe that the speaker is shaming their bodies. However, it could be incorrect because the reason that speaker said that might be out of consideration and concern for the patient’s health. This situation is an example of a patient’s cognitive errors. Another example could be that patients with bipolar disorder may take unintentional jokes from others as the truth. It is dangerous that this cognitive error could make patients to trigger their extreme mood symptoms, which are depression and (hypo)mania. In the study by Kramer et al., with Beck’s universality hypothesis, the correlation between the cognitive errors and the clinical cognitive therapy for the treatment of mood disorders, especially bipolar disorder, was introduced by qualitative research with the method of a one-on-one interview [18]. This research used the dynamic interview to assess participants of two groups. One of them was 30 in-patients with bipolar disorder, and another group was 30 healthy matched people as the compared group. The researcher divided the group of participants with bipolar disorder into the patient with more depressive symptoms and the patient with more manic symptoms, depending on their symptoms. This research expanded Beck’s universality hypothesis in depression to bipolar disorder, which includes the two moods of depression and (hypo)mania. This research showed that bipolar disorder was relevant to the positive cognitive errors and the harmful cognitive errors. Patients with bipolar disorder had more errors in general compared to the healthy people group. Patients with more manic symptoms had more positive errors. Patients with more depressive symptoms were negatively correlated to the positive errors but did not correlate to the negative errors. Therapeutic alliance negatively correlated to the positive errors and had no relationship with negative errors. There were two clinical implications, which were that patients with bipolar disorder had a cognitive bias, and selective abstraction might be the barrier to the construction of positive therapeutic alliance [18].

Cognitive errors could be based on the general inaccuracy in the interpretation of reality, which means the negative bias and stereotype that patients with bipolar disorder gave themselves. Therefore, how to treat patients’ cognitive errors could be an important issue that needs to be solved. Thus, it is important to find a way that rectifies the cognitive distortion. CBT is a treatment that helps people manage problems by changing their way of thinking and behaving; CBT is required to figure out what is processing wrongly in their patterns of cognizing. Cognitive distortions could be a good point of penetration
into the background of CBT. It could help therapists to divide the pattern of thinking into different segments correctly with the model of understanding patients’ behaviours and thoughts depending on the cognitive distortions such as cognitive errors in patients with bipolar disorder.

2.2 Deficits in Social Cognition and Coping Skills

Social cognition refers to the way of understanding, explaining, and predicting behaviour from people themselves and others, by processing, remembering, and using the information in social contexts [19]. For example, people could explain why they chose to help a person who was having a heart attack and ask for help because they received the information that this person was needed to be helped in that social situation. Coping skills are the way and method which people use to figure out the problem when the problem comes. For example, people know how to do such as yelling at the pillow when they feel anger. However, due to the way of thinking has been changed in patients’ minds who have bipolar disorder, their deficits in social cognition and coping skills have been explored. In the study by Montag et al., the deficit of social cognition, for example, the theory of mind, in patients with bipolar disorder was assessed by the non-experimental quantitative research with the correlational study, which explored the correlation between the deficit in social cognition and the diagnosis of bipolar disorder [19]. This study is the first research that studied the theory of mind in patients with bipolar disorder who is in a normal mood. The observed groups in this research were divided into two groups, which are 29 outpatients with bipolar-I disorder and 29 healthy people as the compared group. The researcher used the movie for assessment of social cognition and the auditory verbal learning test to assess participants. The dependent variables were the score of emotional and cognitive mental state recognition. Patients with bipolar disorder expressed significant deficits in the cognitive domain in the theory of mind. However, bipolar disorder did not impair the decoding of the ‘emotional’ mental state. The deficit of the theory of mind would be more significant with the increasing language requirement [19].

Theory of mind is the ability of “mind-reading”, which means people have the capacity to understand others’ behaviour and thought, because they ascribe people’s mental state to others. Plus, people should know that different people can have different mental state. Therefore, the impairment in the ability to understand people can have different mental states could be one of the deficits in social cognition. For example, patients with bipolar disorder could think others are negative as well when they are thinking in a negative way. In the study by Fletcher et al. [20], the difference between bipolar-I disorder and bipolar-II disorder, which was considered from two psychological factors: cognitive and coping styles, was assessed by quantitative research with the method of correlation study, which explored the different correlation between bipolar-I disorder or bipolar-II disorder and those two psychological factors. This research used multiple questionnaires to assess patients’ cognitive and coping styles with bipolar-I disorder and bipolar-II disorder. The number of samples was 151 patients, which included 69 patients with bipolar-I disorder and 82 patients with bipolar-II disorder. The research showed that the cognitive style, coping style, symptom severity and variability existed a difference between bipolar I and II. The research showed two key findings in cognitive style: the difference in dysfunctional attitudes and stress appraisal processes
was linked to the depressive symptoms in bipolar I and II; the broad negative cognitive style was linked to the depressive symptoms in bipolar II. The research also showed that assessing stress as a challenge was uniquely and positively correlated to the depressive symptoms in bipolar II. The research showed that maladaptive coping strategies for positive mood states were uniquely positively associated with the depressive symptoms in bipolar I in coping style. This research also showed that the tendency to ruminate about affect was the central role in bipolar I in coping style. Differing in coping styles could predict depressive symptoms differently in bipolar I and II; however, there are no cognitive and coping styles that could predict the hypo(manic) symptoms in bipolar I and II. This research brought clinical implications [20].

Cognitive and coping styles have belonged to the coping skills. In CBT, therapists are required to find the incorrect pattern of patients’ thoughts and behaviours. How to find the incorrect part in their patterns of thinking and behaving is important in CBT. The impairment in social cognition and coping skills has been proved that it could influence the way of thinking and behaving in patients with bipolar disorder, which is the main point that therapists need to figure out as the background of CBT.

3 The Implementation of CBT and Its Efficacy

3.1 The Effectiveness of CBT for Bipolar Disorder

Although CBT has been a psychological treatment which is mature to be used for mental disorders such as depression and anxiety disorder, its efficacy for bipolar disorder is still controversial. However, there are studies that show that CBT is still an effective treatment for patients with bipolar disorder. In the study by Chiang et al. [15], the efficacy of CBT in patients with bipolar disorder was proved by quantitative research with the method of meta-analysis, which reviewed lots of studies to collect the statistic to show how CBT successfully affected the states of patients with bipolar disorder. This research collected 19 randomized controlled trials research. The samples of this research included 1384 patients with bipolar I or bipolar II. One part of the samples used CBT as adjuvant therapy apart from their medicine, and another part used regular therapy as a comparison. This research showed that CBT could significantly decrease the relapse rate of bipolar. Another key finding of this research was that CBT could improve the depressive symptoms, mania severity, and psychosocial functioning in patients with bipolar I and II. Based on the findings of data comparison in this research, patients who were being treated with CBT gave positive responses of decreasing their depressive and manic states. The research showed that CBT in the treatment of bipolar I and II had a moderate effect size on improving patients’ situations. This research showed that patients required a longer time of CBT, such as 90 min because CBT relies on a strong partnership between the patient and the therapist [15].

According to the data that the previous study provided, CBT has efficacy as a psychological treatment which is used for patients with bipolar disorder. The symptoms, such as depression, mania, and psychological dysfunctions, could be relieved to some degree—the more interactions between therapists and patients, the more effective CBT. Insomnia, as one of severe symptoms that bipolar disorder, could lead patients to have nightmares, lack sleeping time, or/and have trouble falling asleep. It could be one of the
reasons that patients with bipolar disorder’s life quality is decreased. Only the treatment of medicine is unable to cure patients’ insomnia completely. In the study by Killgren et al. [21], the feasibility of treatment, which is the CBT, in patients with bipolar disorder who had the issue of insomnia was assessed by quantitative research with the method of descriptive research, which was trying to figure out if CBT could improve their insomnia. This research is a within-group trial, which had no compared group. This research included 34 participants who were patients with bipolar disorder. This research showed that patients with bipolar disorder reported that their insomnia issues improved after they received the treatment CBT. The research showed that CBT could improve the severity of insomnia in bipolar disorder. Although the research showed that CBT did not improve the mood symptoms, the researcher responded that the CBT in this research focused on insomnia. Another key finding of this research was that mood-specific adverse events did not increase after the participants received CBT. However, the life quality did not significantly change in this research, which the researcher inferred could happen due to low power [21]. In the treatment of bipolar disorder, it is not possible to treat the symptoms entirely with medication alone, so it is important to verify the effectiveness of psychological treatments, such as CBT. Therefore, clinical attention has been paid to the effectiveness of CBT. The efficacy of CBT has been tried to be proved by analyzing statistics from related research. CBT can positively affect patients’ patterns of thinking and behaving.

3.2 Family-Centered CBT for Children and Adolescents

Pediatric bipolar disorder is a controversial topic. Despite controversy and disagreement about the criteria for diagnosis, many children are still diagnosed with pediatric bipolar disorder. Compared to healthy children, children and adolescents with pediatric bipolar disorder show more impairment in their cognitive and psychological dysfunctions. Therefore, finding an effective way that therapists can use it on children is important. CBT, which focuses on changing behaviour and thinking patterns, maybe a treatment that meets the needs caused by pediatric bipolar disorder, such as improving the situation of psychological dysfunction. Child and family-focused cognitive behavioural therapy is a type of CBT which is family-centred; it means the whole family needs to support the child with pediatric bipolar disorder. Child and family-focused cognitive behavioural therapy might be an effective way of treating children with pediatric bipolar disorder apart from medicine. In the study by West et al., the efficacy of child and family-focused CBT in patients with pediatric bipolar disorder was assessed by quantitative research with the method of descriptive research, which was designed to understand what the improvement of mood symptoms and global function that child and family-focused CBT brought to the patient [16]. This research used randomized controlled trials research. This research included 69 patients with pediatric bipolar disorder whose ages were 7–13 years old. This research showed that patients who used child and family-focused CBT were unlikely to quit the course of treatment and reported higher satisfaction [16]. Compared to the control treatment, this research showed that the parents of patients with pediatric bipolar disorder reduced the times of reporting their children’s symptoms of mania after they received child and family-focused CBT [16]. Another key finding was that the reporting of the symptom of depression from the parents of patients also was reduced.
This research also showed that child and family-focused CBT also improves the general function of the patient with pediatric bipolar disorder. This research showed that child and family-focused CBT would improve the long-term psychosocial functioning of the patient with pediatric bipolar disorder [16].

There are mediators around family in child and family-focused cognitive behavioural therapy, which can be improved by this therapy. The research showed that child and family-focused CBT improved parenting skills and coping, which could be a part of mediators of manic symptoms in pediatric bipolar disorder [22]. In addition, the research showed that family flexibility was also significantly improved. Another key finding of this research was that child and family-focused CBT significantly improved family positive reframing, which serves as a mediator in the efficacy of CBT [22]. Although CBT is a talking therapy that focuses more on the group of adults because they have more clear cognition about their patterns of thinking and behaving, child and family-focused cognitive behavioural therapy is an effective adjuvant clinical therapy for patients with pediatric bipolar disorder. It means child and family-focused cognitive behavioural therapy is feasible and effective in pediatric bipolar disorder by improving the mediators between family and patient after receiving the treatment. For example, parents of patients would know how to handle the situation of depressive and (hypo)manic symptoms of their children instead of blaming children; it could help the child get back into normal and everyday life soon because children feel supported. Thus, child and family-focused cognitive behavioural therapy could be an effective treatment for patients with pediatric bipolar disorder.

4 Conclusion

Bipolar disorder is one of the significant burdens of global mental health. The treatment of bipolar disorder other than medicines has become one of the most concerned topics. CBT as a psychological treatment is one of the most common methods that can be used to rectify the pathological patterns of thinking and behaving of patients with bipolar disorder. Cognitive distortion, such as cognitive errors, is one of the factors that are targeted by CBT. The deficits of social cognition and coping skills are other factors that are used to figure out the patient’s patterns of thoughts and behaviours in CBT. CBT is an effective treatment for patients with bipolar disorder. Not only CBT has effectiveness for adults, but also the child- and family-focused cognitive behavioural therapy is helpful for children and adolescents with pediatric bipolar disorder.

However, previous research has some limitations as well. One limitation is that previous research lacks the study of life quality in patients related to CBT. Another limitation is not considering the efficacy of medication at the same time. For example, the improvement of insomnia in bipolar patients could happen due to medicines for treating insomnia. Therefore, this review suggests that future research should measure the quality of life (e.g., related to CBT and sleep) in bipolar patients. Future research also needs to focus on developmental study. CBT requires a long-term relationship between therapists and patients. Thus, just a few months of follow-up and tracking is not enough to achieve the perfect desired results. This paper suggests that research in the future use longitudinal methods, which can increase the time of interaction between therapists.
and patients and observe the long-term influence of CBT. This review discussed the foundation of CBT in patients with bipolar disorder and can provide some guidance to the future intervention studies in this field.

References


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