

The Development of Family Focused Therapy for Youth at Risk for Bipolar Disorder: A Review of Literature

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Abstract: Bipolar disorder (BD) is a severe mental health disorder with mood swings and activation. Youths at risk of BD need treatment to prevent the syndromes from worsening and developing. Among the mass treatment approaches. The psychosocial treatment method of family-focused treatment (FFT) gradually proved to be a good way of helping youths at risk of BD. The researcher reviewed the literature and searched and screened related articles in the past 11 years. As a result, a clear path of development for FFT in treating youths with BD is found, with four stages identified: the beginning, the transition, the development, and the new development. Moreover, it is suggested that in future research, more investigation under comorbid disorders can be analyzed, and researchers can continue to modify the experimental design of comparison between FFT and enhanced care to increase the research's validity. Additionally, technology can be used to better assist FFT in treating youths at risk for BD.

Keywords: youths at risk for bipolar disorder, psychosocial treatment, family-focused therapy, psychotherapy, bipolar disorder

1. Introduction

Bipolar disorder (BD) is a disabling and function-impairing mental disorder characterized by mood and activation and may have a long-lasting negative effect on patients [1, 2]. Individuals with bipolar disorder show mood swings between manic or hypomanic episodes and major depressive episodes [3]. Bipolar disorder is a severe disease, representing one of the top three causes of hospitalization worldwide [4].

Bipolar disorder is a highly inheritable mental disorder with frequent symptomatic manifestation in youth. A ten-fold added risk of being diagnosed with BD goes to pediatrics with parents diagnosed with BD [5]. Additionally, 65.3% of participants experienced early onset before age eighteen [6].

Due to high heritability and its symptom manifestation in youth, pediatrics at risk for BD are generally defined as the population with the possibility of developing BD due to genetic risk, physiological risk, or psychosocial risk, among which genetic risk is the primary factor that contributes to the further development of BD [7]. It seems that with the genetic risks and the developing symptoms, the offspring of parents with BD would likely develop BD later. Moreover, a 59% to 89% of inheritability rate was found in family studies regarding BD [8]. For the above reasons, early intervention for the at-risk group of BD is imperative, and early intervention of youth at risk for BD is mainly targeted at those offspring of parents with BD [7, 9, 10].

Early intervention for youth at risk of BD may be beneficial for reducing the early onset of symptoms and alleviating the adverse effects BD brings. As an early intervention, both pharmacotherapy and psychotherapy have been applied. Lithium is the most advocated pharmacotherapy approach with benefits for both the mania and depressive periods of BD, and either monotherapy or combination with other agents proved to be efficacious [11-13].

However, when it comes to treating at-risk groups of BD, drug treatment has its deficits. As a result of false treatment and a lack of appreciation for the risks of medication, drug treatment alone may cost great expense while having no evident improvement in symptoms for youths at risk for BD, and clinical worsening would possibly happen [7].

On the other hand, psychotherapy seems to be a better option for the at-risk groups of BD. Psychotherapy is concerned with less risk and expense, especially for those asymptomatic at-risk youth for BD [7, 14]. Furthermore, in recent times, more and more researchers tried to combine pharmacotherapy with psychotherapy for early intervention of BD and have generated positive results [15-18].

Family-focused therapy (FFT) seems to be a practical approach among psychotherapies for youth at risk of BD. With its assumption that negativity inside the family poses risk factors for the development of BD, FFT correlates closely with the high proportion of offspring with parents diagnosed with BD within BD's at-risk groups [19]. FFT developed three primary psychotherapeutic aims: to improve family recognition of early BD symptoms, reduce hostility within interactions, and improve problem-solving skills [19]. As a result, FFT was gradually found to reduce stress and conflict inside the family while enhancing the affective states among family members [20]. Additionally, FFT is frequently used with an adapted version of FFT explicitly designed for the at-risk group for BD [21-23].

Moreover, when it comes to investigating the effectiveness of FFT, researchers frequently use an educational control of FFT, generally referred to as enhanced care (EC), with a briefer intervention of psychoeducation [21, 22, 24].

The literature review tries to answer the question: "How does FFT develop over time?" After careful selection and investigation of the related materials, the development stages for FFT in treating youths at risk of BD can be divided into four parts, which will be analyzed in detail below.

2. Methods

The author carried out a literature search on this topic in databases such as PubMed, Wiley, ProQuest, Elsevier, and PsychInfo, with language restricted to English and dates starting from January 2011.

The following search terms are used in order to get a precise result: (Bipolar disorder OR bipolar OR bp OR mania OR bipolar mania OR Bipolar depression OR bipolar spectrum disorder OR bipolar spectrum disorders OR BSDs) and (Treatment OR treatment OR treatments OR treatments OR psychological treatment OR psychological treatments OR clinical treatment OR clinical OR therapy OR therapies OR pharmacotherapy OR psychosocial treatment OR psychosocial treatments) and (Child OR children OR youth OR adolescent OR adolescents OR juvenile OR puberty OR pediatric OR pediatrics OR kid OR kids OR students OR at risk) and (FFT OR family focused treatment OR FFT-A OR systematic care management OR psychoeducation OR enhanced care OR EC).

All the relevant articles were first screened according to their titles and abstracts, then the full texts were read in detail to determine their relatedness to the target topic, avoid uncertainty and increase investigation sensitivity. In addition, the researcher has also read the seemingly relevant articles in reference lists of the selected ones for further information.

3. Results

After searching and screening for relevant research on this topic in the past 11 years, the development of FFT in treating youth with BD is divided into four parts, with each part having a specific time range: the beginning (2011-2014), the transition (2014-2015), the development (2016-2021) and new development(2021-now).

3.1. The Beginning (2011-2014)

3.1.1. Leading Research for Future Investigation

Research has discussed areas of specific need for parenting support for youths at high risk for BD, and thus probably helped future research of FFT. Poor parenting is found in BD parents due to their difficulties in mood regulation and chaos inside the family, influencing offspring's disability in mood and behavioral regulation. As a result, the study proposed that family treatment specially designed for youths at risk of BD may establish a healthier route for development [25]. Moreover, Barron et al. compared the family environment of BD families to a healthy control group and discovered that BD families have more conflict and less expensiveness, which could add to the risk of offspring getting BD [26].

In short, the two studies both discussed the difference in the environment for BD and healthy families. They proposed that certain kinds of family intervention may reduce the risk of offspring getting BD in the future. Although they did not have a follow-up, they did give a direction to investigate further family treatment, such as FFT, in reducing the possibility for youths at risk for BD to be finally diagnosed with this disease.

3.1.2. First Trials of FFT and its Improvement in Experimental Design

Initially, after investigating the possible positive effects FFT might bring to adolescents with prodromal syndromes of BD, researchers carried out the first open trial of FFT on youths at risk of BD. It was an experiment with no randomized control, and it discovered FFT's promising future in the intervention of youth at risk for BD [9].

Later, the first RCT to test the efficacy of FFT on youth at risk for psychosis was carried out. Compared with a controlled situation of EC, FFT seemed to be efficacious in decreasing the prodromal symptoms and preventing the onset of full psychosis [22]. Although this experiment is not explicitly targeted at youths at risk for developing BD, its experimental design and results provide positive evidence for future research on FFT's effectiveness in BD.

Following FFT's first randomized control trial, researchers further modified their experimental design. FFT's effectiveness in treating symptomatic youths at risk for BD was tested through a blinded RCT, with four months of treatment and a one-year follow-up [27]. Compared to the first two experiments, this experimental design is more rigorous and contains a one-year follow-up. However, as one of the first trials, it still has its deficit over the different amounts of sessions in the same period for the two treatment conditions. As a result, it is hard to conclude whether the significant result in FFT is due to its effectiveness in the treatment design and content or the result is simply owing to more time exposure during treatment [27]. This kind of doubt continued into the transition period of development, in which FFT's effectiveness in specific areas was questioned.

3.2. The Transition (2014-2015)

3.2.1. Researchers had a Mixed Attitude Toward the Effectiveness of FFT

The leading research and first trials of FFT have drawn the attention of researchers, and consequently, more research in analyzing FFT's effectiveness had carried out. However, in the transition period, the effectiveness of FFT is doubted, with some research finding it effective while others did not.

On the one hand, some research affirmed FFT's effectiveness. For example, FFT's effectiveness was compared to EC in the interactional behavior of the at-risk group and improvement in communication and listening. In contrast, a significant decrease in conflictual behaviors, irritability, and criticism was found [22]. Moreover, FFT was also found to reduce symptoms effectively during follow-up, and a more significant improvement in attenuated positive symptoms was displayed [21].

On the other hand, however, additional research findings have questioned FFT's effectiveness over specific syndromes. For example, although a significant improvement in positive symptoms was found in the research by Miklowitz et al., their research still found the result insignificant in negative symptoms, such as the decreased experience of emotion [21]. Moreover, EC seems to work better for participants at risk of developing psychosis with an age range of 16 to 19 [21]. Moreover, after the previously conducted research exhibiting FFT's effectiveness across different areas of interaction, O'Brien et al. continued their study in 2013 and investigated the perceived maternal criticism for people at risk for psychosis [28]. However, no difference was found between FFT and EC [22].

Lack of specific interest in the specific field of youths at risk of BD may be a possible explanation. In the beginning part, the first trials of FFT had just been carried out, suggesting its promising future [9, 24]. It is possible that though researchers in the transition period had an interest in FFT, they had not developed a targeted interest in the field of youths at risk of BD. They have a mutual interest in determining FFT's treatment effectiveness, while the researchers are focused on a broader topic of psychosis instead of bipolar disorder in particular. Moreover, the age range of the participants being investigated is much broader. Because of the above reasons, the results can only represent the broader topic of psychosis or a larger age group, and FFT's effectiveness from this research cannot be simply deduced to youths at risk for BD.

However, to see things from another perspective, the doubts over FFT's effectiveness can bring about new research in the specific field of youth at risk for BD in later times, and the research designs already existed would serve as protocols for future researchers, which is an excellent thing for the development of research. Moreover, the idea that although generally an effective treatment method, FFT could not be that effective in improving specific syndromes can help future researchers think critically about FFT.

3.2.2. Researchers Initiated a New Research Area

In the transition period, researchers first investigated FFT's effects on the brain activation of youths at risk for BD. Garrett et al. found an increase in the dorsolateral prefrontal cortex under FFT, suggesting a connection between FFT and improvement in manic symptoms [28]. Moreover, the researchers of this experiment had given specific areas to be investigated, such as a healthy control group and experiments with a larger sample size, which may set an example and provide enlightening ideas for future research in this area [29].

3.3. The Development (2016-2021)

In the development period, various research has been carried out based on previous findings, investigating FFT's effectiveness in different areas for youths at risk for BD and the underlying mechanism related to changes in neuron activities.

To begin with, researchers are interested in increasing FFT's effectiveness by modifying its treatment to meet the need of youths at risk of BD. For example, Marvin et al. found that FFT performed better than EC in enhancing skills related to communication and problem-solving [30]. Moreover, trained clinicians could carry out their modified version of FFT at a high-fidelity level [30]. Moreover, Müller et al. presented and tested a newly developed model of family intervention presented and tested [31]. Additionally, with the accumulation of related research, Farris et al. systematically investigated the treatment history of youths at risk for severe mental illness [32]. Its comparison of the treatment methods for an at-risk population with attenuated syndromes and asymptomatic could provide areas for future investigation and a new adaptation of FFT.

Moreover, other researchers conducted in-depth research targeting treating youths at high risk for BD. According to research, FFT can delay the full display of mood disorder episodes and prolong the intervals for participants without suicidal behaviors [33,34]. Additionally, with the help of FFT, Weintraub et al. discovered that functional recovery may take longer than symptomatic ones and that FFT is as important as those treatments focused on symptom alleviation [35]. Thirdly, following Farris et al. research, Besenek investigated FFT's effectiveness for asymptomatic youth at risk for BD and discovered its ability to produce a more extended remission period, with a significant reduction in manic symptoms [32,36].

Another development lies in investigating neuron functions and brain activities related to FFT. Garrett et al. continued to investigate FFT and brain activities [23]. They found that FFT can help syndrome improvement by activating the dorsolateral prefrontal cortex in visual attention networks, which is helpful for completing tasks. Moreover, the improved interaction inside the family can help develop the prefrontal cortex, preventing youths at risk of BD from developing further mood symptoms [37]. Moreover, a bottom-up processing change in neural response was found in the FFT, which is quite different from the neural response with EC [38]. The comparison of FFT and EC from the perspective of brain activities was further investigated, with more robust connectivity between the ventrolateral prefrontal cortex and the anterior default mode network being found. It suggested that FFT could raise self-awareness and improve emotional regulation [39]. Moreover, with the development of investigation under neural changes, Miklowitz et al. incorporated the investigation of neural and behavioral mechanisms in their research design [40]. They found FFT's effectiveness in reducing harms caused by manic episodes and alleviating mood syndromes.

In a nutshell, researchers acknowledged FFT's effectiveness more in the development stage, while deficits still exist. The research carried out in this period has a more extended follow-up period of 1 to 4 years, a larger sample size, a healthy control group other than the generally used treatment control of EC, and more focus on the inner neural changes due to FFT, suggesting future adaptation in FFT and a generally clear understanding of the internal processing. On the other hand, there is still more to investigate and improve in experimental design. Though researchers had realized a deficit in the experimental design regarding the different frequencies of getting treatment in the same period for FFT and EC as early as 2013[27], this kind of deficit in experimental design continued to exist, and researchers continued to use the previously set up model of comparison, expecting future research to have a control group with the same frequency of treatment or FFT and EC [41]. Moreover, it is suggested that more research should be carried out about some comorbidities, and the treatment studies should be more organized, with a pilot study at the start, followed by case series and more organized ones such as RCT and randomized placebo-controlled trials [42].

3.4. New Development (2021-now)

In the new development stage, researchers are generally focused on how to use FFT better to help youths at risk for BD, as well as to understand the underlying mechanism for FFT better to help better improve the treatment.

To begin, the investigation continued better to understand FFT's functioning and the underlying mechanism. Enlightened by Miklowitz et al., Wong et al. discovered the link between changes in the perception of family functioning and the improvement in depressive symptoms. They emphasized FFT's importance in improving depressive symptoms [41, 43].

Apart from that, researchers continued to modify FFT to help youths at risk for BD better. With the recognition of FFT's effectiveness, researchers proposed that the next step could be finding a more efficient and economical way of enhancing family communication, which may require improving FFT [44]. Furthermore, by assessing the mediating process of FFT, it is found that the overall closeness of the therapeutic alliance of youths with their parents and therapists may influence the symptomatic outcome, indicating that enhancing the engagement of youths during FFT may have a long-term effect on the overall effectiveness of the treatment [43]. Moreover, to better help youths at risk of BD, researchers have developed a pilot study of the technology-enhanced version of FFT by developing a mobile app, using videos, graphs, and daily task reminders to help implement FFT [44].

4. Conclusion and Discussion

In conclusion, the literature review analyzed the development process of FFT for youths at high risk for BD. A clear development route is found by careful investigation of the related research.

In the beginning stage, a few first trials of FFT were carried out, and researchers are constantly modifying their research design and developing new topics for future investigation.

Later in the transition period, researchers cast doubt on FFT's effectiveness. This is probably due to the lack of research targeting youths at risk of BD. As a result, though the effectiveness of FFT for a larger age group or in terms of psychosis is doubted, FFT could be possibly effective in the specific area of youths at risk for BD.

Following the transition period is the development stage, in which more researchers are focused on the specific area of youths at risk of BD, and researchers gradually acknowledge the effectiveness of FFT. Moreover, in this stage, various investigations exist on brain activity and neuro changes related to FFT. With the help of these investigations, FFT's effectiveness in neuroscience is developed, making it much easier to understand and modify FFT.

Finally comes the new development stage. Researchers are taking a step further in this stage to investigate how FFT can better help youths at risk of BD. They have developed a technology-enhanced model of FFT to help it become more efficient and effective.

For future studies, more research on comorbid disorders could be investigated. Moreover, future experimental design regarding the comparison of FFT and EC should be modified, enabling participants to receive the same frequency of treatment within the same period. Additionally, as the pilot study of the technology-enhanced version of FFT had been designed [44], future research could investigate more under the topic of connecting FFT to modern technology to facilitate its use better and increase its efficiency in treating youths at risk of BD.

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