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A Comparative Evaluation of Cognitive Behavioral Therapy and Behavioral Parent Training in Treating Attention Deficit Hyperactivity Disorder

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Abstract: The article summarizes the popular treatment of attention deficit hyperactivity disorder. Attention deficit hyperactivity disorder (ADHD) is a mental disorder characterized as possessing two behavioral issues: inattentiveness and impulsiveness or hyperactivity. An individual with the first subtype of attention deficit hyperactivity disorder is recognized as having six or more symptoms related to inattention and less than six symptoms of hyperactivity in a duration of six months or more. By comparing cognitive behavioral therapy and behavioral parent training in treating attention deficit hyperactivity disorder, a validity and effectiveness declaration is drawn on both therapies. In the scope of this article, cognitive behavioral therapy, and parenting skills training on the consequences of children's behaviors will be examined and compared. It also provides some aspects of the differences for further studies. Cognitive behavioral therapy and consequence-based behavioral parent training are two effective and adequate treatments for ADHD. While the former consists of the section of planning and organizing, reducing distractibility and applying adaptive thinking, the latter centralizes on the idea of positive reinforcement where parents can choose techniques such as the token economy and praising to motivate particular behaviors.

Keywords: Behavioral Parent Training, Cognitive Behavioral Therapy, Attention Deficit Hyperactivity Disorder

1. Introduction

Attention deficit hyperactivity disorder (ADHD) is a mental disorder characterized as possessing two behavioral issues: inattentiveness and impulsiveness or hyperactivity [1]. Based on the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), there is a wide range of ADHD symptoms surrounding each of these two behavioral problems. Regarding inattentiveness, it includes but is not limited to the inability of concentrating on an item's details, a recurring transition between events even if each event is not fully completed yet, and significant difficulty in following instructions of activity [2]. As for the problem related to hyperactivity, examples of symptoms are a strong struggle to participate in quiet activities that do not require excessive physical movement, and an extensive demonstration of actions in an activity or an environment that are rendered to be inappropriate or unnecessary, such as moving intensely on a seat during a sedentary activity [2]. Aside from the documented symptoms in DSM-5, there are a few additional requirements that need to be

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fulfilled when diagnosing an individual as a patient with ADHD. For instance, for children, the symptoms should be reported as so detrimental that they seriously damage children's performance in different aspects of life [3]. Research has shown that the symptoms of ADHD are subject to develop across different stages of some individuals' life, and such disorder manifests differently between adults and children in a rather significant way. For example, compared to children, adults who developed ADHD were more difficult to be perceived by bystanders as they experience more urges to engage in related symptoms within their minds [4]. Even though the level of ADHD symptoms does not remain constant in one's life and is varied across patients, from a general perspective, this mental disorder can be categorized into three subtypes: ADHD predominantly inattentive type, ADHD predominantly hyperactive-impulse type, and ADHD combined type. An individual with the first subtype of ADHD is recognized as having six or more symptoms related to inattention and less than six symptoms of hyperactivity in a duration of six months or more; whereas a person with the second ADHD subtype is characterized as displaying six or more symptoms of hyperactivity and less than six symptoms of inattention for six months minimum. As for the third subtype of ADHD, a person is diagnosed with this mental disorder if they demonstrate at least six symptoms associated with inattentiveness and hyperactivity respectively for half a year [5].

There are many theories regarding the etiology of ADHD, which come from a wide range of perspectives, such as biological, cognitive, and environmental points of view. In terms of the biological standpoint, one factor that has been examined extensively is genes. In Lichtenstein et al.'s study on the relationship between several mental disorders and monozygotic and dizygotic twins, researchers discovered that the heritability of ADHD is 79%, suggesting that there is a high likelihood that this disorder can be passed on from parents to their offspring. In studies that explore deeper what, specific genes may be responsible for ADHD, it had been found that dopamine D4 and D5 receptor genes, and catechol O methyl transferase genes all share a degree of association, to just name a few [6]. However, as the results of Lichtenstein et al.'s study show that it is not guaranteed that a child will develop ADHD just because their parents have this syndrome, theories associated with individuals' cognition also explain the causes of this mental disorder. One entry point of cognitive psychologists is working memory, a small amount of information stored temporarily in consciousness for cognitive tasks [7]. According to the working memory model devised by psychologists Alan Baddeley and Graham Hitch, there are four components involved in a person's short-term memory: central executive, phonological loop, visuospatial sketchpad, and episodic buffer. Within them, the central executive is a controlling system that regulates the flow of auditory and visual information between the phonological loop and visuospatial sketchpad, and it possesses the ability to carry out executive tasks such as attentional shift and decision-making [8]. Based upon this concept, a theory proposed from studies is that when individuals are experiencing a high level of difficulty in organizing the visual and auditory inputs from the environment with their central executive, they will become unable to effectively coordinate their behaviors while processing those modes of information in tasks [9]. Consequently, a demonstration of inattention and hyperactivity will emerge. Aside from the working memory model, another model involved in the explanation of the development of ADHD is the inhibition model. Based on its designers, inhibition of both behaviors and cognition can be divided into three mental parts: one part is the process of regulating the initial idea of responses to a stimulus before producing it in reality, and another one is the capacity to cease a response to allow additional thinking to take place before performing subsequent behaviors, and the last part is to maintain physical and mental status from any directing stimuli in the environment [10]. It can be seen that these parts are connected to the allocation of attention and the control of behaviors, therefore, a failure of either one of them can lead to the performance of ADHD syndrome. Yet, from the aforementioned description of working memory and inhibition, it is clear that the performance of these two executive functions is accompanied by the inputs or stimuli in the surrounding, which reflects that

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environmental factors are also playing a role in the etiology of ADHD. One of the factors can be traced back to when the individuals are still the fetus in their mothers. If a mother engages in a high frequency of alcohol consumption, there is a likelihood that her child may develop fetal alcohol spectrum disorder, as alcohol cannot be eliminated by the baby. Studies have discovered that some of the accompanying behavioral issues of this particular syndrome are the struggle to focus and complete tasks, and a difficulty to manage impulses [11]. Since these issues share a strong resemblance to inattention and hyperactivity, clinical psychologists have identified that pre-birth intake of alcohol is an environmental factor that leads to ADHD [4]. As for the postnatal element related to the occurrence of this disorder, parental neglect is one of the factors that share a correlation, and this is shown in Stern et al.'s longitudinal study. Psychologists involved in this research assessed several negative childhood experiences regarding the relationship between family members, such as abuse and neglect, and correlated this with the DSM-5 diagnosis of ADHD. The results revealed that there is a strong link between these two variables, and without psychological treatment, this mental disorder can be sustained to adulthood [12]. Thus, it can be concluded that the growing environment also affects the development of ADHD—biology, and cognition are not the sole causes of this disorder.

Given that there is a high level of complexity in the etiology of ADHD, a wide range of treatments are applied in modern clinical practices, such as cognitive behavioral therapy, parenting skills training, and medical treatment like atomoxetine drug [3]. In the scope of this article, cognitive behavioral therapy, and parenting skills training on the consequences of children's behaviors will be examined and compared.

2. Cognitive Behavioral Therapy

Cognitive behavioral therapy (CBT) was developed by psychiatrist Aaron Beck and Albert Ellis in the 1960s [13]. As the name suggests, it encompasses some principles of two renowned forms of therapy: behavioral therapy and cognitive therapy. Behavioral therapy explores the bidirectional relationship between individuals' behaviors and the environment they are in, thereby offering an understanding of how it leads to the demonstration of the behavioral symptoms connecting to specific mental disorders [14]. On the other hand, cognitive therapy takes the approach of viewing mental illness as a product of negative feelings, ideas, and thoughts towards certain events. Often, these aspects of cognition are distorted compared to reality, such as having an idea of what other people are thinking in their minds even if there is no support for such an idea. Building upon this concept, cognitive therapy alleviates mental disorders by identifying these distortions and making patients realize their incorrectness [15]. While behavioral and cognitive therapy each has their weaknesses when evaluated separately, from the above overview of these two types of therapy, it is evident that criticism can be made for both of them on the ground of a reductionist approach to treating human mental illness. According to the triadic reciprocal determinism in Albert Bandura's social learning theory, individuals' factors such as their cognitive processes, their behaviors, and their environment all interact with each other in a bidirectional way [16]. The indication behind this concept is that a person's behaviors and cognition should not be perceived as two isolated elements on the path of improving one's state of physical and mental being, rather, the connection between them is essential to be taken into account when treating mental disorders. Hence, CBT is a comprehensive approach that acknowledges the importance of the relationship between behavior and cognition and surpasses a rather reductionist method in treating mental disorders.

When an individual with ADHD selects CBT as the treatment, several techniques will be applied by the psychiatrist throughout the sessions. While the extent of the practices of those techniques depends on factors like the severity of the disorder and the age of the patients, in general, they can be grouped into three main categories: planning and organizing, decreasing distractibility, and

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promoting adaptive thinking. Within these three categories, planning and organizing are labeled as the most fundamental stage of the therapeutic course. The central component of this session is for clinicians to assist clients to establish an organizational system that allows for an orderly and methodical daily life. For this kind of system, patients with ADHD are encouraged to devise a task list and a timetable on a single platform so they can easily check and revise when needed. Along this process, clients will practice prioritizing skills, task-breaking skills, as well as problem-solving skills [17]. Whether it is to assign and complete tasks based on their importance, note sub-sections of an overwhelming assignment, or propose a wide range of solutions to an issue and implement the best one, the common characteristic of the three aforementioned skills is that they all serve to the completion of tasks, which is a goal that is hindered by the symptoms of inattention and hyperactivity. Consider the fact that not only did ADHD leads individuals to be unable to concentrate on specific items, but there have also been studies reporting that people with this mental order tend to work on things that are urgent but carry relatively less importance, visuals such as a task list and schedule do provide a clear overview and direction of working for individuals. In addition, the establishment of priorities and problem-solving training committed by people with ADHD promote the alleviation of frustration and bewilderment when tackling daily tasks, assignments, and projects.

However, having difficulty paying attention to a subject and performing inhibition to the sensory inputs indicate that ADHD is associated with a high level of distractibility, and this element was not covered in the planning and organizing part of the CBT. This should not be identified as the limitation of this particular therapy, as in convention there will be several sessions dedicated to dealing with the issues of distractibility. One of the most common techniques implemented by psychiatrists at this stage is the distractibility delay practice, during which clients are instructed to record items that cause distractions when completing a task and examine them afterward [17]. During the examination, patients can label these items, or thoughts, as either "unimportant and do not require completion", "require completion but can be added to the task list first", or "must be completed as soon as possible" [16]. In evaluation, this technique allows patients with ADHD to be able to sustain in the doing of the current task, yet not going so far as to discard all the impulsive thoughts that emerge in their mind but to retain a space for them to manifest later in life. In that way, individuals would not be governed by their impulses and would develop a longer attention span and higher capacity of working memory to focus on specific tasks, as well as a stronger ability to inhibit the influence of surrounding stimuli. It can be seen that there is a clear engagement between behavior and cognition at this stage of therapy, in which there is behavioral management of impulsive actions and an internal reflection. However, when patients move to the third stage of CBT, elements in behavioral therapy will reduce, and concepts in cognitive therapy will be exercised more extensively and directly.

The third section of CBT concentrates on the promotion of adaptive thinking, or cognitive restructuring, which follows the principle of cognitive therapy rigorously. The cognitive construct that places at the center of this part of the therapy is automatic thought: a quick and recurring idea within the mind [5]. For instance, after sending a text, an individual may uncontrollably think that the other person is angry at him or her if that person did not respond immediately. While in the past there were questions on whether or not there is a connection between automatic thoughts and ADHD, in an academic paper written by Knouse & Mitchell, a discovery has been noted that there is an association between positive automatic thoughts and this mental disorder. An explanation for this finding is that individuals with ADHD have difficulties in performing cognitive functions such as directing attention to assess the situation, which causes them to develop a tendency to form positive views and thoughts about events. However, it must be noted that this relationship is not prevalent when it comes to negative automatic thoughts [16]. Nonetheless, the module about cognitive restricting in the CBT for ADHD still focuses on both types of automatic thoughts, and it aims to let patients identify and change those thoughts so they would not have, or have less, influence in later life. In the related therapeutic

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sessions, clients will be provided with a worksheet where they need to record down the automatic thoughts that emerged in their minds that obstruct their progress of a specific task [16]. The premise is that those thoughts are erroneous and do not reflect the corresponding aspects of reality. For example, the idea of "this project does not need to be completed today as I have the capability of finishing it at the last moment of the deadline" is registered as an overly optimistic thinking error if one does not have such ability based on past experiences. Thinking errors like this ultimately guide people to forgo focus and engage in other events, which are the symptoms of ADHD. Thus, psychiatrists will advise patients to write down a response to each them, which articulates a rational and critical argument that refutes automatic thoughts. Through this form of engagement with internal feelings, it is expected that clients develop a less frequent way of letting cognition cause behavioral issues related to ADHD. In turn, the symptoms of ADHD can be alleviated gradually, and this concludes the main modules contained in the CBT for this mental disorder.

From the above discussion, there is a sufficient demonstration of how CBT for ADHD builds upon the indispensable link between behavior and cognition, and comprehensively trains skills needed to and imparts knowledge to evaluate internal thoughts to cope and reduce the symptoms of ADHD. These elements imply that there is a high level of effectiveness in the approach of using this therapeutic operation to treat this mental disorder, and the effectiveness was found in several studies. For example, college students with ADHD in Anastopoulos et al.'s study attended the CBT that encompassed the three main modules for six to ten weeks, in the afterward assessment of individuals ' symptoms and executive functions, they averagely showed a decrease in the former and a better performance of the latter. In evaluation, this study possesses a high level of ecological validity as participants were not completely disconnected from their daily life in the course of the experiment. That is, while they were participating in the CBT, they continued to engage with their normal daily activities and follow their living patterns. While it can be argued that many latent variables could influence the effect of the treatment along the way, the fact that the participants still displayed an improvement in cognitive functions and an alleviation of the symptoms suggests that CBT is effective in real-world scenarios. But the results of Anastopoulos et al.'s research have a low level of population validity since the subjects being studied were college students. Individuals at different ages have different levels of cognitive functions and these abilities tend to decrease as people become older, so judging on this study solely, it is questionable if the training provided in CBT can lead to the same improvement in people from other age demographics. Yet, by examining the results of other studies, it is clear that CBT has the same positive effects on both children and older adults. Aside from the evaluation of CBT on patients with ADHD from a wide range of age groups, another entry point for analyzing the effectiveness is the duration of its effects on the mental disorder. What must be emphasized here is that most, if not all, mental illnesses cannot be cured once and for all, but therapy does offer a reliable way to reduce associated symptoms significantly. Research had found that after receiving a full course of CBT, the improvement in individuals 'ADHD symptoms was about seven months, despite the time being three months in other experiments.

3. Behavioral Parent Training

Even though CBT does offer a series of treatments targeting the behavioral and cognitive aspects of ADHD, external factors that may also be beneficial in curing this mental disorder are overlooked. An example of the external factor is the adults in the family. Of course, grown-ups rarely live with their parents nowadays, but children are in the opposite condition. Based on the statistical finding published by the National Institute of Mental Health, in the year 2003 alone, the prevalence of ADHD in teenage children was 8.7%, which was 4.3% more prevalent than that in adults. Thus, it is a valuable approach to see how parents can be involved in treating this mental illness. In the current time, parenting skills training, or parent training program, is the psychological method that

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incorporates the impact of parents on the treatment of ADHD, with the fundamental assumption that children's physical and mental disorders can be improved as long as their parents create a positive and appropriate interaction with them. Based on the results of Luman et al.'s study, positive reinforcement was shown to be effective in treating ADHD among children. In the context of this article, this popular concept in behaviorism is about providing rewards when kids perform a desirable behavior. The training program that is highly associated with this concept is behavioral parent training.

The structure of BPT can be divided into three sections. The first section is to impart knowledge to parents so they to develop a general understanding of ADHD, then the program will move to the second part which is for physiatrists to examine and offer suggestions for the interactions between parents and children. The third and last section is to evaluate the outcome of the second session so the most effective way of interaction can be identified for parents to practice in the future. For this article, the focal point among these sections is the second one as it explores different positive reinforcement strategies that treat ADHD. From a general perspective, these strategies are associated with token economy and compliment, and they are analyzed in the following three paragraphs.

When adopting a token economy approach to treat ADHD, several items must be included. First, before giving any token to children, there should be a clear establishment of the desirable behaviors that are qualified in earning the token. As for the token itself, it works most effectively when it is countable and aesthetically pleasing. Additionally, it should be distributed immediately after a desirable behavior is performed. Since there is a high likelihood that the children will have a large number of tokens collected, parents can utilize this situation by including some backup reinforcers in the system. They can be items such as privileges and toys as long as they are sufficiently motivational to promote the maintenance of desirable behaviors. It is expected that through this series of interactions, children who have ADHD will gradually habituate behaviors that are the opposite of the symptoms of this mental disorder, thus advancing towards a more normal physical and mental condition. This expectation is shown to be achievable in the results of some studies. Aside from distributing tokens to motivate children with ADHD to develop positive behaviors, parents could also allocate their focus on the technique of praising, which is a component introduced in the course of the BPT. Despite there is a rather prevalent mindset that praising is a simple way to promote certain behaviors, a growing body of research has shown that many dimensions must be taken into account to achieve the expected effect. Among those dimensions, there are overlaps between praise provision and some concepts in the token economy. For instance, it is advised that parents should offer compliment immediately after seeing a child performs a desirable behavior, so there is a higher chance for children to repeat that action. As for the characteristics of praise in general, one of the aspects is that it should be specific to the behaviors of the children, such as when a child with ADHD control themselves adequately in completing a task without engaging in any unnecessary and disturbing movement, this control should be stated directly within the praise. Moreover, since ADHD manifests itself through inattention and hyperactivity, parental praise will primarily surround the demonstration of improvements in these two subjects. As a result, parents need to alter their comments on children's behaviors frequently to maintain a sense of differentiation. Otherwise, young individuals will quickly find praises to be tedious and no longer be incentivized by them, causing a decrease in the effectiveness of praising techniques [17]. Align with this aspect of the treatment is the need for praise to contain consistency and sincerity: being able to provide consistent praise to children with ADHD can assist them to develop a clear understanding of the exact desirable behaviors they should be performed in their daily life; meanwhile, children can sense and determine whether or not the comments they received is genuine and whether or not their behaviors are being truly appreciated by the parents. With a lack of sincerity, even if compliments are offered consistently, there may be an increasing unwillingness for children to practice attentive behaviors and inhibition that alleviate the

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symptoms of ADHD. To summarize, when parents are applying the praising approach, they should be giving immediate, specific, specialized, sincere, and consistent comments.

However, it must be noted that even if the features of praises discussed above are being followed rigorously by parents, there may still be drawbacks involved in this technique of the BPT. One disadvantage is that there is a possibility that praising can undermine the improvement of future behavioral performance, as suggested by Xing et al.'s study. In this study, children were given a task for them to complete within a specific time limit after this time experimenters calculated participants ' scores on the task, and each child would either receive no praise, praise for their ability, or praise for their effort. By asking participants to finish a few similar tasks afterward, it had been found that individuals who heard the praise for their ability demonstrated the lowest level of development in their scores: the average score difference between the third and the first task was 0.11, whereas the difference among children who received no praising or effort praising was 1.34 and 1.03 respectively. Connecting this result with the context of the article, the content of the praises given to children with ADHD is usually a direct and specific address on their ability to pay attention and restrain themselves from performing excessive actions, so it is susceptible if such praises can undermine the overall improvement in the long run. Another disadvantage of the praising technique is its influence on the internal motivation of parents, and their attention on the repeated tasks completed by their children with ADHD. Some of the principles of praising discussed in the previous paragraph are linked closely to the requirement of parents to observe children's behaviors closely in the first place, there is evidence suggesting this requirement can be difficult to achieve in real-life practices. For instance, based on the findings of Kakinuma et al.' study on ability-specific praising, individuals who offered this kind of praise tend to demonstrate a lower level of attentional engagement on subsequent tasks. Thus, parents may fail to detect the desirable behaviors performed by children if they delivered compliments in the previous time, which reduces the consistency of the praises and thus hinders the effectiveness of this technique in BPT. Nonetheless, given that children involved in Xing et al.'s study did not have ADHD and the attentional engagement measured in Kakinuma et al.' study was not associated with observing children's behaviors, it is not absolute that the results of these two studies reflect the limitations of parental praising in the real-life application.

4. Comparison

Judging from a general perspective, it is clear that there are several similarities, as well as differences, between CBT and BPT. While each of these treatments approaches ADHD with different methods, they all offer a valid improvement for patients with different types of ADHD. One similarity between CBT and BPT is that in the course of the treatment, they all incorporate and apply the knowledge of how behaviors themselves play a vital and powerful role in influencing ADHD. For both the token economy and the praising method, the central idea is to offer a sufficient amount of reinforcers to motivate individuals with ADHD to voluntarily perform more behaviors that are against the symptoms of this mental disorder, thereby gradually becoming people with a high level of ability to concentrate on tasks and inhibit the demonstration of impulsive thoughts and behaviors. While the CBT does not provide any clear positive reinforcers to the patients, it imparts several behavioral skills, such as organizing skills and distractibility delay, to make patients maintain themselves the completing their current assignment longer and reduce the effects of internal and external distractions [16]. Another similarity shared between these two kinds of treatment is the characteristic of being patient-orientated, and this similarity can be recognized as their strength possessed by them. In terms of CBT, while the aim of each session is established clearly, patients are still able to integrate the aspects of their daily life into the course. For example, the design of a timetable is individualized to people's tasks, and in the adaptive thinking part patients only need to focus and evaluate their thinking errors that result in distraction and hyperactivity, and alter these cognitive processes to improve the

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syndrome. Similarly, even though the name suggests that the BPT is about parents learning ways to encourage children's display of desirable behaviors, for each child, there is a huge emphasis on the identification of the most effective technique for parents to apply, so that the positive outcome of the treatment can be maximized. In other words, some of the young patients will be more motivated by the system of token economy, some will show a higher level of preference for other types of interactions such as parental praising, rather than appointing a specific technique to parents, therapists will inform parents about their children's reactions to different methods and advise them on the most suitable method. Through this stylized training, patients with ADHD can be benefited in the best way possible. Thus, aside from the incorporation of behavioral training, the similarity of considering patients 'characteristics in the CBT and BPT enhances the improvement of ADHD.

On the other hand, differences between the two treatments exist. Aside from that, the BPT is more suitable for children who live with their parents, one of the most evident differences is the account of patients' cognition. The CBT integrates concepts of cognitive therapy into the therapy. In particular, the idea of adaptive thinking, which was categorized as one of three main sections, during which patients will systematically record and reflect on their errors of thinking, then rationally respond to them to decrease their effects on the symptoms of ADHD. By contrast, the BPT shares a closer connection with the idea of positive reinforcement in behaviorism, which aims to use rewards—such as tokens and praises—to reduce the demonstration of ADHD-related symptoms, and so the module of adaptive thinking was not included in the treatment. While there is a significant level of attention drawn to the features of praising to ensure it does not negatively influence the internal or mental motivation of children and the effectiveness of the method, patients do not have the opportunity to comprehensively examine their thinking and improve mental disorders from that point. Aside from the training in cognition, another difference between the two treatments is the way they address the etiology of ADHD. As the second paragraph of the article discussed, there is a large number of theories that explains the causes of this mental disorder. Certainly, both of these treatments do not tackle the causes of maternal drinking during pregnancy and genetic materials that lead to the occurrence of ADHD, nonetheless, the role of cognition and some of the other environmental factors are being approached. In CBT, patients will practice several skills that improve their ability to inhibit behavioral and cognitive impulses, such as recording them before evaluating their validity. This facet of the treatment touches on the theory that individuals may develop ADHD because of the failure in at least one part of the inhibition model. In terms of the BPT, an essential feature in both the token economy and praising is that parents need to accompany children and offer reinforcement immediately after the performance of desirable behaviors, which links to the environmental factor, parental neglect, of ADHD [17]. So it can be seen that the connection of the two treatments with certain etiology is different. Also, due to the different paradigms, limitations concerning each treatment are different. For instance, in the use of token economy and praising, studies suggest individuals' attentional engagement tends to decrease after offering ability-related praises, so parents may not detect every desirable behavior, which reduces the effectiveness of the treatment. This limitation may not be found in CBT as it promotes patients to be autonomous in modifying their thoughts and behaviors.

5. Conclusion

In conclusion, CBT and consequence-based BPT are two effective and adequate treatments for ADHD. While the former consists of the section of planning and organizing, reducing distractibility and applying adaptive thinking, the latter centralizes on the idea of positive reinforcement where parents can choose techniques such as the token economy and praising to motivate particular behaviors. Despite both treatments placing behaviors as one of the focal points for patients with ADHD to alleviate their symptoms, and allow patients to integrate their characteristics and mental

processes into the sessions so they can improve upon or through them, there are significant differences between them. These differences include but are not limited to the emphasis on cognition, links to the etiology of ADHD, and the overall weaknesses of the treatments. Nevertheless, whilst different in several facets, CBT and BPT are valid in treating ADHD.

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