

Original Articles

How Relevant is Cognitive-Behavioural Therapy in Paediatrics?

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Abstract

Cognitive-behavioural therapy is a relatively new treatment approach which has a firm theoretical base and has been subjected to empirical validation. Many treatments derived from the theory have demonstrated efficacy in rigorous clinical trials and applied to clinical problems of children and young people as well as adults. The major goal is to help bring about changes in the child's life by altering the undesirable factors maintaining a disorder through intervention in the immediate circumstances after systematic specification, analysis and measurement. The therapy is effective when used alone or in combination with medication.

Key words

Child care; Cognitive-behavioural therapy; Evidence-based approach; Psychosocial and medical problems

Introduction

Recent epidemiological studies indicate that from 17% to 22% of children and young people under 19 years of age suffer from developmental, emotional or behavioural problems.¹ Clearly there is a need for effective evidence-based therapies, especially those which can take into account the children's developmental and emotional needs and abilities.

In the late 1970's, many practitioners of behaviour analysis began to recognise that new needs were emerging in the general population that might be well served by behavioural approaches. As behaviourists and others looked at children and adults with medical diseases and at the health care system in general, sweeping changes were occurring in the delivery of services, the nature of disabilities, the course of disease, and the importance of prevention that spoke to the potential importance of learned or behavioural factors in disease genesis, maintenance and treatment.² Over the last 20 years, an enormous number of behavioural techniques have been developed, applied and researched.

Behavioural approaches have been applied to problems such as enuresis, encopresis, anxiety, mood disorder, aggression, lack of assertiveness, social skill difficulties, specific phobias, eating disorders, psychosomatic disorders, academic or learning difficulties, delinquency, drug abuse, addiction and withdrawal, sexual dysfunction, marital and family dysfunction, and so on.^{3,4} Soon it becomes apparent that behavioural explanations per se seem inadequate to account for the clinical situations and provide for clinical solutions. More recently, cognitive therapy emerges on a phenomenological basis which contends that the way individuals view themselves to a great extent in reality determines how they feel and how they behave.⁵ On this premise, these two approaches are now integrated for the sake of kinship and parsimony. Here, theorists have removed the doctrinaire attitude of strictly behavioural theorists by incorporating the cognitive activities of the child into the equation in order to complete the full clinical picture.

In its current form, cognitive-behavioural theory is a mediational conceptualisation and represents a hybrid of behavioural and cognitive research and assumptions. It represents an amalgam of behavioural and cognitive positions with an integration of emotional and contextual factors: the theory remains flexible to reformulation in accord with data. It is a data-driven, hypothesis-testing approach, combining cognitive and behavioural interventions into a new – and hopefully more useful – breed.⁶ It provides well-specified descriptions of the various therapeutic

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procedures and has shown success in a wide variety of medical and psychosocial disorders. Its clinical effectiveness and usefulness as demonstrated in randomised controlled trials has been reviewed in the editorial in a leading psychiatric journal just published recently.⁷ In fact, the efficacy literature of the therapy, compared with that of other types or modalities of treatment, is superior in terms of rigor and demonstrated uses.⁴

Cognitive-behavioural therapy fundamentally focuses on the behaviour problem or symptom which could have arisen from emotional or cognitive causes. Goals of therapy focus on specific behaviours (which are observable, measurable, quantifiable, comparable and susceptible to change) and an evaluation is made regarding conditions in the environment that trigger or maintain the undesired behaviours. By altering the behaviour, the environment, or both, the target behaviours are changed or modified.⁸ It is based on the assumption that children with deviant behaviour suffer from deficiencies in particular processes or from an inability to use or to apply cognitive skills.⁹ In this regard, cognitive-behavioural therapy is particularly useful for phobias and fears, obsessive-compulsive and other anxiety disorders, adjustment disorders, impulse control problems, and social skills deficits.⁸ In this context, therapy is directive, structured, time-limited, and problem orientated, aimed at modifying the faulty information-processing activities evident in psychological disorders.¹⁰ Oftentimes work with children involves the therapist and child sharing important experiences and the therapist guiding the youngster's attribution about prior behaviour, along with his or her expectations for future behaviour. The patient's success in correcting faulty cognitions or overcoming specific symptoms will in turn promote more general improvement by enhancing social competence and self-confidence.¹¹

In general cognitive-behavioural therapy with children aims to help them to select appropriate behaviour for everyday life, focusing on the process rather than on the outcome, teaching behavioural and cognitive methods to lead them to an effective solution.¹² The therapy also involves an on-going and self-evaluating process of assessment, facilitating a process of self-therapy while accentuating the maintenance and generalisation of learned skills to the child's external environment.¹⁰

It can hardly be over-stressed that cognitive-behavioural therapy has become an umbrella term for different treatment techniques that can be offered in many different sequences and permutations. At present, cognitive-behavioural therapy with children has come to be a combination of strategies, including behavioural performance-based procedures as well

as cognitive interventions to produce change in thinking, feeling and behaviour.¹⁰

Differences of Cognitive-Behavioural Therapy from Other Psychological Therapies

The features that distinguish cognitive-behavioural methods from other treatments are: they are concerned more with discovering and altering the current determinants of the patient's problems than with original causes, they are based on psychological experimentation, and they have limited and rather specific indications.¹¹ The therapist will focus on antecedent and subsequent or contingent events in relation to the problem behaviour or symptom and features that may modify their effects such as mood or the presence of others.

Another major difference between cognitive-behavioural and psychodynamic therapies lies in the degree of importance given to exploring early childhood experiences for the origins of maladaptive patterns of thinking and behaviour. In cognitive-behavioural approaches, it can be helpful to explore early experiences to enable the client to place his problems in historical context, but this is not seen as a major part of the therapy. The latter view is that people are not disturbed so much as past events as by the way that these events are viewed in the present, so the focal point of treatment is the present and immediate future. Past history and long-term goals are of only marginal relevance to the work of the cognitive-behavioural psychotherapist. He is much more concerned to isolate carefully the stimuli which are currently maintaining the maladaptive behaviour than to explore possible cause and hypothesise about the distant future.

In cognitive-behavioural approaches, problems are viewed operationally. The definition of the presenting problem must be concrete, specific, and observable whenever possible. It is assumed that problems are functionally related to internal and external antecedents and consequences. For example, behavioural assessment, which is particularly relevant in child care, is idiographic (concerned with the individual) in that it attempts to understand the antecedents and consequences of behaviour for that particular individual. This is important because it is this specificity that is necessary to develop individualised treatment plans. One of the contributions of the behavioural approaches is the close relationship between assessment and treatment.¹²

Cognitive-behavioural interventions include various

combinations of cognitive and behavioural techniques and are aimed at changing either cognitions, behaviour, or both.¹³ Cognitive-behavioural interventions are directive, structured, goal-directed, and time-limited treatment, and most types involve the patient in a collaborative relationship with the therapist. The use of homework assignments and skills is practised along with a focus on problem-solving ability.¹⁴

Unlike the psychoanalytic or the humanistic psychotherapist, the cognitive-behavioural therapist does not regard the relationship with the patient as being the central focus of the therapy itself, though the importance of therapist-patient relationship is still acknowledged and recognised.

Special Relevance of Cognitive-Behavioural Therapy for the Treatment of Children

In the first place, children seen in treatment are often nonverbal or minimally verbal, especially at younger age groups. This is clearly the case in children whose problem includes muteness, autism, mental retardation, deafness or communication skill deficits. Even in other children, however, insight therapies or highly verbal methods may prove ineffective for reason of immaturity. Since behaviour therapy makes explicit use of largely nonverbal procedures, such as arrangements of appropriate reinforcement contingencies, such methods may be especially appropriate with children.

Secondly, in essence cognitive-behavioural therapy treatment is often relatively simple and direct, and therefore more readily accepted by parents. A therapy which the parents understand, agree with, and are able to contribute to is more likely to be successful than a treatment which the parents fail to understand either in theory or practice, make no contribution to, and may view with some suspicion or scepticism.

Thirdly, the development of cognitive-behavioural therapy for the child is of particular importance when there is no parent to work with. This may be due to severe family dysfunction causing removal of the child from the home (e.g. due to neglect or abuse) or when the parent is unwilling or unable to participate in parent management training.¹⁰

Fourthly, in attempting to specifically deal with maladaptive behaviour, cognitive-behavioural therapists make explicit efforts to identify, encourage, and reinforce adaptive behaviour. A behavioural assessment not only points to maladaptive behaviours to be reduced, but also to positive behaviours that can be strengthened. Whereas the

aim in therapy with adults is often to break down a behavioural pattern, in treating children the therapist usually has to build up a definitive and adequate behaviour pattern. To this end, clear attempts are made to produce adaptive responses that will be maintained by natural feedback from the child's environment. This may change the child's interaction with his environment from a largely negative one to a more positive one, and contribute to the development of a happy child who will continue to develop new skills and achievements as he grows up.

Fifthly, there is an obvious advantage that the focus of cognitive-behavioural therapy with children lies in treating the children within their own natural environment.¹⁰ It is worthy of note that although maladaptive patterns of perceiving, feeling and behaving are rooted in the past, they are sustained by present forces and, therefore, it is these that must be changed.¹¹

Sixthly, to the extent that behaviour approaches emphasise control of the natural environment, such control may be easier and more common with children than with adults. The approaches employ agents of change in the school and home where the child is spending most of his time anyway. Therefore the therapist can effectively manipulate the child's special experiences by instructing a fairly small group of people, the teacher and parents. These people have considerable control over the child. Manipulation of the social environment would be considerably more difficult in the case of the adult, both because that environment is less localised, and because its members would be less willing to impose clear contingencies and constraints on behaviour.

Seventhly, children unlike adults seldom come to the clinic of their own volition. It is often someone else (parents or school staffs) who want to change their behaviour rather than they themselves. Thus control over reinforcement contingencies may be indicated and necessary. Nevertheless, if possible, the child should be seen as someone who can be an active partner in decision making concerning the aims of therapy, establishing criteria for target behaviours, and making decisions about the kinds of techniques to be used. It is useful to bear in mind that the child is not a passive receptor of treatment, but rather can learn and know about the techniques needed for behaviour change, understand their rationale, and take responsibility for their practice and application.¹⁰

Eighthly, adults are accustomed to using vague terms in describing children's problems. Adults often use such labels as "nervous", "lazy", or "bad" to describe adults' traits, and they also use these labels to describe children's. In contrast,

the behavioural clinician will instead attempt to determine exactly what behaviours have been occurring to warrant the trait label. The clinician often prefers to make a translation from the trait label to specific behaviours because people tend to use trait labels to refer to a wide variety of behaviours.⁸

Underlying Tenets of Treatment Techniques

It follows that in a cognitive-developmental frame, the therapist summarises concrete cause-and-effect sequence through the awareness and analysis of antecedent-behaviour-consequence,¹⁵ focusing on the here-and-now rather than on past events¹⁶ and assuming overt behaviour to be an expression of underlying cognitions and covert emotions. Relying heavily on the scientific approach to problem-solving, the therapist then uses a systematic, objective, and data-based methodology to developing interventions.

The suggestion that emotional disorders are maintained by unrealistic thinking leads naturally to the idea that emotional problems can be treated by teaching people how to identify, evaluate and change their distorted thoughts and associated behaviours. In this context, cognitive-behavioural therapy specifically emphasises on helping the patient to monitor cognitions (e.g. negative, automatic thoughts); to recognise the connections between cognitions, affections and behaviours; to examine the evidence for and against distorted automatic thoughts; to substitute more reality-orientated interpretations for these biased cognitions; and to learn to alter dysfunctional beliefs that predispose the patient to distort his or her experiences.¹⁰

In cognitive-behavioural therapy, children and adolescents change their own behaviour with guidance from the therapist through the use of self-instructions, self-monitoring of behaviour, self-reinforcement, self-punishment, or a combination of these methods. These methods have been increasingly explored for both increasing appropriate behaviours and decreasing inappropriate behaviours. All of these techniques involve self-control in that the client is free to behave or not behave. Society greatly values the learning of self-control because less effort then has to be expended to arrange external contingencies. In fact, the research literature suggests that the teaching of self-control to children holds considerable promise for increasing appropriate behaviours. Self-control procedures produce effects that are comparable to external control procedures and may be superior for maintaining therapeutic goals.⁸

Cognitive-behavioural approaches take many different forms depending on situations owing to presence or absence of certain factors. Some concentrate on the modification of deviant perceptions of self and others, while other cognitive-behavioural therapies focus more on altering the child's environment.¹⁷ At this juncture, it may be apt to refer to clinical problems where cognitive-behavioural therapy is deemed pertinent and useful and spend some length in expounding the application. However, owing to the limitations of space, only very specific examples of paediatric conditions which can illustrate the application of cognitive-behavioural methods will be discussed and the criteria of the conditions cited will follow and be in accord with those of the Diagnostic and Statistical Manual for the Mental Disorders IV (1994) of the American Psychiatric Association. It is admitted that it is quite impractical to detail the operational steps (including practical difficulties and pros and cons at each step) in this short review and it is proposed that a general, albeit notional, outlook be adopted in covering the clinical entities which are selected mostly for their clinical relevance and significance in child care. It is intentional to demonstrate the development of intervention techniques from the hypotheses in one example, to compare the efficacy of various treatment methods in another example, to substantiate the rationale of the use of cognitive-behavioural therapy in yet another example, or to provide more details in terms of steps in one of the examples, so that the presentation can permit a more comprehensive coverage or afford a more variegated perspective. However, it must be borne in mind that a single technique does not always work in a given condition, and it is likely that one or more techniques should be employed at the same or different stages even in the same condition.

Nocturnal Enuresis

Bed-wetting is a common, and particularly uncomfortable, behavioural disorder. Beyond the age of five, many more boys than girls are persistent bed-wetters, and this is often taken as an indication that enuresis is a developmental disorder, that is, an abnormality of development which is related to biological maturation.

Bell and pad method is commonly used in the treatment of childhood nocturnal enuresis. After a complete behavioural analysis and a medical examination, enuresis can be successfully treated by the bell (buzzer) and pad method. The bell is connected to a pad and makes a loud

noise when activated by urine. The child sleeps on a special pad placed in his own bed. When he wets himself, the urine completes an electric circuit on the pad, and an alarm bell or buzzer is set off. This immediately wakes the child. For this technique to be effective, the children should have reached an age at which continence is expected, that is, at least five years of age.

Whatever the causes, the treatment most successful with enuresis is the bell-and-pad. Success rates with this form of treatment are usually around 80%, varying in different studies from 50% to 100%, after about eight weeks of treatment.¹⁸ The relapse rate can be as high as 40%, but the majority of them usually responded to a booster course of treatment.

Monda and Husmann¹⁹ compared the effectiveness of three approaches and found success rates of 39% for imipramine, 68% for desmopressin (DDAVP) and 63% for alarm therapy. Relapse rates six months after therapy was discontinued were quite high for imipramine (only 16% continent) and desmopressin (only 10% continent); however, 56% of the patients treated with alarm therapy were still dry at night. Although oral desmopressin remains as an effective treatment modality for primary nocturnal enuresis,²⁰ a more recent study confirmed the alarm therapy to be a new approach to primary nocturnal enuresis, with a success rate of about 80%.²¹

Assuming no physical pathology, the most important initial step is to minimise the handicap, namely to point out to the parents the very favourable natural outcome of the condition, and to relabel the child's enuresis as immaturity rather than laziness or wilfulness. It is useful to combine a buzzer with a star chart. The success of this approach is probably because the child becomes more aware of the sensation of a full bladder, along with the encouragement from parents for dry nights.²² There is local experience in managing nocturnal enuresis in children.²³

Fears and Phobias

Children's fears are often associated with avoidance, subjective discomfort and somatic complaints.²⁴ The most frequently feared stimuli relate to fears of danger, death, and physical injury. Normally children's fears are mild and short-lived enough that they do not interfere with social growth. Phobias can be distinguished from fears in that phobias are more persistent, disproportionate to the demands of the situation, irrational, and cause significant interference

in functioning due to avoidance of the feared stimulus.²⁵

Systematic desensitisation is regarded as the most effective way of treating phobic disorders (i.e. severe fears of particular objects, people, places or events), such as spider phobia. If a response antagonistic to anxiety can be made to occur in the presence of anxiety-provoking stimuli, so that it is accompanied by a complete or partial suppression of the anxiety responses, the bond between those stimuli and the anxiety responses will be weakened. The original technique developed by Wolpe²⁶ involved three stages:

1. Training the child in progressive relaxation
2. Constructing with the child a hierarchy of clearly defined anxiety-arousing situations and ranking them in ascending order of intensity
3. Presenting phobic items from the hierarchy in a graded way, whilst the child in a state of deep relaxation inhibits the anxiety.

In simple words, children are taught to relax their muscles, and once they are completely relaxed, they can be gradually reintroduced to the anxiety-provoking stimuli. Progress in hierarchy can be made in imagination, in real life (in vivo) or by a combination of both, depending on such factors as the availability of the feared object or situation and how easily the graded steps can be reproduced in real life.²² It is important to note that children are re-exposed to the feared objects only very gradually. If they show signs of anxiety, the objects are removed immediately.

For social phobia or social anxiety disorder, a highly prevalent yet often overlooked problem that can cause severe disability, the child is trained to improve on deficiencies in social skills by using various techniques such as role-playing and modelling. The cognitive social approach (also called social learning) stresses that children can be noncoercively instructed in desired behaviour patterns, even without many special incentives, through providing them with interesting and appropriate models. Such models are particularly useful when the behaviours to be acquired are subtle, complex, and unlikely to be learned in the child's normal setting. For nearly all children, social development consists largely of learning to delay gratification, inhibit aggressive behaviour, and be kind to others. These behaviours are not easily learned, and children who are delayed or deficient in prosocial behaviour require careful nurturing in order to become well socialised, constructive adults.¹⁷ It has in fact been shown that cognitive behavioural therapy, with or without specific antidepressant therapy, is the evidence-based treatment of choice for most patients.²⁷ This may apply equally well for cases of school phobia.

Behaviour and Conduct Disorders

Certain behaviour disorders tend to cluster together because they are what might be termed acting-out or externalising behaviours.²⁸ That is, the children who have these problems are doing something that violates the standards or norms set by adult society.

These disruptive behaviours may be so well entrenched, aversive, and resistant to change that behaviour-reduction procedures used in isolation may not be effective and may need to be combined with behaviour-enhancement techniques.²⁹ Therefore, after punishment, attention should immediately be refocused towards positive behaviour with appropriate reinforcements. If possible, treatment should be directed towards reinforcement of achievement rather than towards obedience. Generally, when dealing with children with conduct or behaviour disorders, consistency is critical if unwanted behaviours are to be extinguished or counter-conditioned.⁴

Therapists, parents and teachers should use modelling, positive reinforcement of desired behaviour, extinction and mild negative consequences (such as loss of privileges) for undesirable behaviour in order to foster the development of pro-social behaviour. The goal is to train the child in various cognitively mediated strategies, such as self-control and response-delay strategies, problem-solving skills, self-instructional training, and anticipation of consequences.³⁰ In particular, combined cognitive and behavioural techniques have been proven effective in teaching appropriate behaviour and basic skills to behaviourally disordered children.³¹ This approach emphasises realistic personal situations with siblings, parents, peers, and teachers, and directly teaches problem-solving skills through generating alternative solutions, consequential thinking, and taking perspective of the other person. Thus it is evident that these techniques are not exclusively for use with disruptive children³² and should be promising in guiding or training normal children.

Depression

In clinical practice, antidepressant drugs may be quite helpful, particularly in cases of endogenous depression. However, the side effects can be problematic with the tricyclic agents, unless newer classes are used, and when drugs are prescribed, there is still a constant need to carefully monitor the effects on behaviour and learning, which makes the nonpharmacological modalities an attractive option to paediatric patients and their parents.

Conversational nondirective or psychodynamic forms of therapy aimed at uncovering presumed underlying psychological conflict are more difficult to conduct with depressed children than with depressed adults, as discussed above. The fact that young children may find it difficult or impossible to understand and describe their feelings of depression, anxiety, and concern¹⁷ has opened up alternative, or more practical approaches to this very important and common condition.

Depressed individuals often appear to lack the social skills necessary to obtain reinforcement from their social environments. As a result of very little reinforcement in many of their primary activities such as work, play, school, or homemaking, they engage in fewer activities and in turn obtain even less pleasure from them. Programmes based on this theory are thus geared to teach social skills in order to help increase the depressed person's participation in a variety of pleasurable and rewarding activities.²⁵

Another theory is that depression is a form of learned helplessness, whereby depressed people have learned to attribute failure to highly predictable, global, internal factors. They do not seem to recognise that they are not responsible for all negative events or that they can change what will happen to them. Intervention therefore consists of cognitive strategies for correcting the depressed person's causal misattributions of success and failure.²⁵

Yet another cognitive theory of depression suggests that depressed people have adopted a negative bias in their thinking and view themselves, the rest of the world, and the future in predominantly negative terms. These negative styles of thinking, by misinterpreting the world and distorting reality, lead to many of the symptoms of depression. The negative self-schema and other maladaptive schemata (attitudes that are economically developed from past experiences) are maintained through, and give rise to, errors in information processing which result in the depressed individual exhibiting a negatively biased distortion in active information processing,⁶ a matter which is of clinical relevance in respect of its effect on suicidal ideations. Active intervention based on this theory consists of not only behavioural activities and cognitive exercises for changing the person's characteristically negative behaviour and belief systems, but also the skills necessary for them to identify and modify their own self-defeating thoughts and beliefs.

Finally, intervention may be based on a theory of self-control deficits. According to this theory, a depressed person has deficits in self-monitoring, self-evaluation, and self-reinforcement. He or she selectively attends to negative events and their immediate consequences, sets criteria for self-evaluation that are too stringent, makes inaccurate

attributions of responsibility, and engages in too much self-criticism and self-punishment. Intervention consists of training in respective areas so as to make the person's interpretation of and response to events more realistic and gratifying.²⁵

It is evident from the above that explanations for the causation of depression in fact abound and it is probable that with different propositions different treatments can be derived and made available to different patients. In this regard, a recent leading article discourses on new possibilities in cognitive therapy for depression.³³

Limitations

Cognitive-behavioural therapy is very goal limited precisely because it recognises it cannot deal with immense complexity of human life. Contingency management systems, in particular, will always be an impoverished representation of the full range of behaviour involved in living, simply because the very need to systematically specify behaviour-consequence contingencies, to be at all possible, requires considerable simplification. There is often a constellation of behavioural problems.

Even though there is a danger in premature assignment of behavioural deficits as symptomatic, there is also a danger in premature assumption that the alteration of the presenting problem is the final solution. The successful treatment of a specific problem behaviour may sometimes be followed by increases in other problem behaviours or the occurrence of new problem behaviours.

Indeed, given that children's problems are normally multivariately determined, treatment with a unitary focus on one aspect of the behaviour problem in a single context is not likely to be effective or generalisable. A developmental approach to the understanding of the disorder is critical to treatment efforts. By the same token, it is abundantly clear that a single intervention is insufficient to deal with the complex and multidimensional nature of a child's problem. Some techniques are effective with certain problems for certain people while others are less effective with other people, depending on the parameters of patients' problems. Any one technique would be only minimally effective with a varied group of individuals. Ultimately, there is a need for more exacting studies to specify which patients, under what conditions, will respond best to which techniques, given a particular problem area.

Eventually it may be increasingly accepted that preventive approaches that combine several different treatment approaches to promote family competence, reduce school

failure, and improve social relationships early in a child's life may be an alternative to chronic management.¹⁷

Conclusion

The cognitive-behavioural framework is an expanding and promising one and the therapy is a relatively new treatment approach which has a firm theoretical base and has been subject to empirical validation. Since the theory has spawned a proliferation of research in the treatment of clinical problems in youth, many techniques derived from the theory have subsequently demonstrated efficacy in rigorous clinical trials. It is futile to argue that cognitive-behavioural theory and therapy have already offered a panacea for all the clinical problems of all children and youth, but it is not unreasonable to assume that the approach does advance the understanding of child psychopathology and psychotherapy and in doing so, the approach has itself expanded in response to data now available. To this end, it is hoped that the service needs, sometimes desperately anticipated, will be met in the most sensitive and efficacious manner.⁶

One of the underlying assumptions of the approach is that there is no clear distinction between "normal" and "abnormal" behaviour. And an important characteristic of treatment procedures is that the same treatment techniques used to eliminate "abnormal" behaviour may also be used to deal with "normal" behaviour problems in "normal" children. One of the exciting potentials of cognitive-behavioural therapy is that it may help use to deal more effectively with minor behaviour (such as compulsive acts) or emotional (such as anxiety or depression) problems before they become major and thus less remediable.

In a nutshell, cognitive-behavioural therapy has a great opportunity to make a profound impact in the area of paediatrics and medical care in general. For example, one of the current challenges in paediatrics is to develop evaluation models that adequately represent complex clinical concerns and that translate the empirical rigor of the cognitive-behavioural approach into clinical practice in a cost-effective manner.³⁴ The achievement of success in paediatrics may one day result in the promotion of functional behaviour analysis within medicine in general.³⁵

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