

Modifications to Cognitive Behaviour Therapy to Accommodate the Cognitive Profile of People with Asperger's Syndrome

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Children and adults with Asperger's syndrome are prone to develop secondary mood disorders (1). This may be due to insight into their difficulties with social integration and because they have considerable difficulty conceptualising and managing their emotions. When clinicians diagnose a secondary mood disorder, they need to know how to modify standard psychological treatments in order to accommodate the unusual cognitive profile of people with Asperger's Syndrome. As the primary psychological treatment for mood disorders is Cognitive Behaviour Therapy (CBT), this paper examines such modifications based on our knowledge of the syndrome and preliminary clinical experience (2).

CBT has been designed and refined over several decades and proven to be effective in changing the way a person thinks about and responds to feelings such as anxiety, sadness and anger. The treatment program focuses on aspects of Cognitive Deficiency in terms of the maturity, complexity and efficacy of thinking and Cognitive Distortion in terms of dysfunctional thinking and incorrect assumptions. Thus it has direct applicability to clients with Asperger's syndrome who are known to have deficits and distortions in thinking.

The therapy has several components, the first being an assessment of the nature and degree of mood disorder using self reporting scales and a clinical interview. The next stage is affective education with discussion and exercises on the connection between cognition, affect and behaviour and the way in which individuals conceptualise emotions and construe various situations. Subsequent activities are cognitive restructuring, stress management, self-reflection and a schedule of activities to practise new cognitive skills. Cognitive restructuring corrects distorted conceptualisations and dysfunctional beliefs. The person is encouraged to establish and examine the evidence for or against their thoughts and build a new perception of specific events. Stress management and cue controlled relaxation programs are used to promote responses incompatible with anxiety or anger. Self-reflection activities help the person recognise their internal state, to monitor and reflect on their thoughts and construct a new self-image. A graded schedule of activities is also developed to allow the person to practise new abilities, which are monitored by the therapist.

Assessment of the Nature and Degree of the Mood Disorder

The initial component of CBT is an assessment of the nature and degree of the mood disorder, the cognitive abilities of the client and an evaluation of their circumstances. There are several self-rating scales that have been designed for children and adults with specific mood disorders that can be administered to clients with Asperger's Syndrome. However, there are specific modifications that can be used with this clinical group, as they may be more able to quantify their response using a pictorial representation of the gradation in experience and expression of mood. Examples include an emotion 'thermometer', bar graphs or a 'volume' scale. These analogue measures are used to establish a baseline assessment as well as being incorporated in the affective education component and used to measure changes attributable to the therapy. To minimise word retrieval problems multiple choice questions can be used in preference to open-ended sentence completion tasks. A pictorial dictionary of feelings can also be used as additional cues for diary or logbook measures.

The assessment includes the construction of a list of behavioural indicators of mood changes. The indicators can include changes in the characteristics associated with Asperger's Syndrome such as an increase in time spent engaged in their special interest or solitude, rigidity or incoherence in their thought processes or behaviour intended to impose control in their daily lives and over others. This is in addition to conventional indicators such as a panic attack, comments indicating low self worth and episodes of anger. It is essential to collect information from a wide variety of sources as children and adults with Asperger's Syndrome can display quite different characteristics according to their circumstances. For example there may be little evidence of a mood disorder at school but clear evidence at home. Parents and teachers can complete a daily mood diary to determine whether there is any cyclical nature or specific triggers for mood changes.

An assessment is conducted of the client's cognitive abilities using standardised intelligence scales to determine their level of intellectual reasoning and style of learning. Some individuals with high functioning

autism and Asperger's Syndrome have asymmetrical abilities with regard to verbal and visual reasoning and this can be valuable information in determining whether the client's comprehension is enhanced by strategies emphasising verbalisation skills such as discussion and reading or visualisation skills such as drawing and role play. At present we do not have a range of standardised tests to measure social reasoning skills or the understanding and expression of emotions but the research literature includes tests that can be incorporated in the client's initial assessment. Examples are tests of advanced Theory of Mind skills, the conceptualisation of friendship and ability to read the facial cues of particular feeling states. Finally, an assessment is made of whether key individuals in their life understand and accommodate their profile of abilities and whether their mood is modelled upon or reinforced by certain individuals.

Affective Education

The client learns that emotions are experienced along a continuum of intensity of personal experience and expression. They are then tutored in the ability to detect the degree of emotion within themselves and others. This includes the identification of internal and external cues from physiological signs to overt behaviour. Technology can be used to identify internal cues in the form of biofeedback instruments such as auditory EMG and GSR machines. The client creates a list of their physiological, cognitive and behavioural cues that indicate an increase in emotional arousal. Instruction is also provided in the identification of observable and contextual cues that indicate the emotional state of others and the natural and appropriate range of responses to those cues. This aspect of CBT is invaluable for clients with Asperger's Syndrome as they have difficulty conceptualising the spectrum and continuum of emotional experience and expression. With other clients one starts with an education program that focuses directly on the emotion or mood that most affects their daily life such as feeling anxious, sad or angry but it may be wise to start the education program for a client with Asperger's Syndrome using a simple positive emotion such as happiness or pleasure to first learn the techniques of identifying and measuring one's mood(3) This can incorporate the creation of a special book or folder that includes the client's choice of items that illustrate or act as a personal cue for feelings of wellbeing. Some of the items can be idiosyncratic and reflect their special interest, for example a client with an interest in insects could include a picture of a rare beetle they recently observed. The book can also be used as a diary that includes compliments, records of achievement and memorabilia. The book or folder is subsequently used in the Cognitive Restructuring component of the therapy as a means of changing their mood and self-perception. Once the client has explored a positive emotion, the therapist can progress to the emotion or mood that is of primary concern.

During the education program it is important to ensure the client shares the same interpretation of words to describe a particular feeling state. Clients with Asperger's Syndrome and the therapist can misinterpret the intended meaning of a specific word or statement. An emotion 'thermometer' can be used with the client and therapist indicating at which point they think the word or comment should be placed. Clinical experience has suggested that some clients with Asperger's Syndrome may use extreme statements such as "I am going to kill myself" to express a more moderate level of emotional experience than would be expected with other clients. The education program includes activities to extend their vocabulary of words and behaviour to more precisely and subtly express their feelings.

The identification of the salient cues in another person's facial expression, body language and tone of voice can take considerable time and practice. Their typical errors include not identifying which cues are relevant or redundant and misinterpreting cues. This latter characteristic can result in false assumptions regarding the thoughts and intentions of others. A useful technique is to encourage the client to think of themselves as being a detective or scientist looking for clues or data and not making accusations or conclusions without thoroughly examining the evidence for and against their theory

Conventional CBT programs primarily focus on affective education but when considering therapy programs for clients with Asperger's Syndrome, one needs to consider education in social reasoning skills. This involves tuition in the codes of social conduct, conflict resolution and friendship skills. The anticipation and experience of breaking the social codes can be one of the causes of their anxiety, depression and anger. Social Stories, developed by Carol Gray specifically for this clinical population, provides tuition in the rationale for the codes, the cues that indicate a specific social rule and the script for what to do (4). As many clients with this diagnosis are relatively less proficient with Theory of Mind skills, they fail to recognise the perspective, beliefs and thoughts of the other person which results in a

propensity for disagreement and conflict. They are also often less skilled in the art of compromise and strategies to repair the conversation or interaction. Such situations can be the trigger for inappropriate emotional responses, particularly anger. Tuition may be required in Theory of Mind skills (5), and conflict resolution.

As one of the causes of Depression in people with Asperger's Syndrome is the strong desire to have friends while recognising their considerable difficulties with achieving and maintaining genuine friendships, education programs can be used that assist the client to improve their abilities in this area. The programs are based on conventional activities designed for ordinary children and adults with adaptations to incorporate the client's level of social maturity. Finally, the education component of CBT includes informing significant individuals in the client's life about the nature of Asperger's Syndrome and how it affects their recognition and management of emotions. This knowledge can lead to a change in their attitude towards the client and subsequent changes in expectations and circumstances that has a beneficial effect on their mood.

Cognitive Restructuring

Cognitive restructuring enables the client to correct distorted conceptualisations and dysfunctional beliefs. The process involves challenging their current thinking with logical evidence and ensuring the rationalisation of their emotions. The first stage is to establish the evidence. People with Asperger's Syndrome can make false assumptions of their circumstances and consequences and the intentions of others. They have a tendency to make a literal interpretation and a casual comment may be taken out of context or to the extreme. For example, a young teenage boy with Asperger's syndrome was once told his voice was breaking. He became extremely anxious that his voice was becoming faulty and decided to consciously alter the pitch of his voice to repair it. The result was an artificial falsetto voice, which was quite incongruous in a young man. A teenage girl with Asperger's Syndrome overheard a conversation at school that implied that a girl must be slim to be popular. She then had a dramatic weight loss in an attempt to achieve the acceptance of her peers. We are all vulnerable to distorted conceptualisations but people with Asperger's Syndrome are less able to put things in perspective, seek clarification and to consider alternative explanations or responses. The therapist encourages the client to be more flexible in their thinking and to seek clarification using 'rescue' comments such as "are you joking?" or "I'm confused about what you just said" Such comments can also be used when misinterpreting someone's intentions such as, "did you do that deliberately?" and to rescue the situation after the client has made an inappropriate response with a comment such as: "I'm sorry I offended you", or "Oh dear, what should I have done?"

To explain a new perspective or to correct errors or assumptions, Comic Strip Conversations can help the client determine the thoughts, beliefs, knowledge and intentions of the participants in a given situation. This technique has been developed by Carol Gray (4) and involves drawing an event or sequence of events in story board form with stick figures to represent each participant and speech and thought bubbles to represent their words and thoughts. The client and therapist use an assortment of fibre tipped coloured pens to represent emotions. The person's choice of colour indicates their perception of the emotion conveyed or intended as they write in the speech or thought bubbles. This can clarify the client's interpretation of events and the rationale for their thoughts and response. This technique can help them identify and correct any misperception and to determine how alternative responses will affect the participants' thoughts and feelings.

Cognitive Restructuring also includes a process known as attribution retraining. The client may exclusively blame others and not consider their own contribution or they can excessively blame themselves for events. One aspect of Asperger's Syndrome is a tendency for some clients to adopt an attitude of arrogance or omnipotence where the perceived focus of control is external. Specific individuals are held responsible and become the target for retribution or punishment. They have considerable difficulty accepting that they themselves have contributed to the event. However, the opposite can occur when the client has extremely low self-esteem and feels personally responsible and unable to improve their abilities, which results in feelings of anxiety and guilt. Attribution retraining involves establishing the reality of the situation and determining how the client can change their perception of themselves. The client may have a limited repertoire of responses, especially verbal as opposed to physical responses. The therapist and client create a list of appropriate and inappropriate responses and the consequences of each option. Inappropriate options for adults can be responses observed in action

movies or consuming alcohol as a self-administered anxiolytic. With children, various options can be drawn as a flow diagram that enables the child to determine the most appropriate response in the long term. It is also important at this stage to stress the importance of self-disclosure. The client with Asperger's Syndrome may be unaware that other people are interested in their experiences and mood and can suggest solutions.

Another technique is to use the client's special interest as a metaphor to help them conceptualise the treatment program and to generate new strategies. For example, if the client has a special interest in the science fiction character, Dr. Who, a scenario can be constructed where the client imagines they are a hero who is stranded on a planet where there is an invisible monster that creates and feeds upon people's anxiety. The therapist is a scientist who has studied this monster and between them they can devise a way for the hero to escape.

Stress Management

Relaxation is used as a counter conditioning procedure. Traditional relaxation procedures can be taught to clients with Asperger's Syndrome but one must also consider the circumstances in which they are particularly prone to stress. Perhaps the greatest stress is socialising and the client and therapist determine the social situations when they are most vulnerable. A common situation is break-times at school or work. One option is for the child to be able to withdraw to the school library at these times or for the worker to complete a crossword puzzle or go for a walk. A particularly stressful time for children is the journey to and from school and measures can be taken to ensure they are safe from being tormented or bullied. Another source of stress for adults is unexpected changes in work demands or circumstances. They may need advance preparation and time to adjust their work schedule.

Cue controlled relaxation is also a useful stress management strategy. One example is for the client to have a special key in their pocket. This is used as a cue or symbol of a key to metaphorically open the door to an imaginary world where they are relaxed and happy. A few moments contemplating this scene helps the person relax and achieve a more positive state of mind. Adults can have a special picture in their wallet such as a photograph of a woodland scene, which reminds the person of the solitude and tranquility of the wilderness.

Self Reflection

The client's self-perception and ability to self reflect is examined and strategies designed to encourage a positive and realistic self-image. Children and adults with Asperger's Syndrome are renowned for their difficulty in conceptualising the thoughts and feelings of others and clinical experience suggests this characteristic also applies to their ability to reflect on their own thoughts and feelings. Personal Construct Assessment, originally developed by Kelly can be used with adults to develop an insight into their conceptualisation of themselves and others and to establish the direction in which they would like to change. (6).

Children with Asperger's Syndrome can have an unusual self-perception, considering themselves more as an adult than a child, for example acting as the class policeman. They may need to learn not to resent being treated as a child and to learn and accept their role.

When self-perception indicates low self-esteem, self talk strategies can be used such as "I am doing well", "I can control my feelings" or if the concern is the management of anger, "I can stay calm".

Practice

Once the client has improved their cognitive strategies to understand and manage their moods at an intellectual level, it is necessary to start practising them in a graduated sequence of assignments. The first stage is for the therapist to model the appropriate thinking and actions in role-play with the client, who then practises with the therapist, vocalising their thought processes to ensure they are using appropriate strategies. Further supported practice or rehearsal can be achieved through social skills groups with similar individuals and ordinary children or adults who have been informed of the specific skills the client has been learning and are willing to participate in the practice sessions. The final stage is graduated practice in real situations.

Additional Comments

When conducting Cognitive Behaviour Therapy, the therapist will encounter some of the anticipated issues associated with individuals with a mood disorder but there are some aspects that are more apparent in this clinical population. The development of a rapport between client and therapist is essential but clients with Asperger's Syndrome can take an instant and lasting like or dislike of other people, especially professionals. The therapist will have to be able to convince the client that CBT will provide a more effective alternative to their current coping mechanisms. The client may not know the social ground rules for a therapeutic relationship and need guidance in aspects such as when is an appropriate time to contact the therapist by telephone, knowing what the therapist needs to know and that they are helping them in a professional capacity, not as a personal friend (7)

The therapist will need to become knowledgeable in their unusual linguistic profile which includes difficulties with the pragmatic aspects of language, especially conversational turn taking, when and how to interrupt and being pedantic. In comparison to other clients who do not have Asperger's Syndrome, they will require more time to cognitively process explanations and new strategies. They will need a clear, structured and systematic approach with shorter but more frequent therapy and practise sessions. It will help to have the main points from each session typed and made available to the client and to review them again at the start of the next session. The therapist will also need to maintain regular contact with key people in the client's life to ensure the accuracy and validity of their descriptions of events and that the cognitive strategies are realistic for their circumstances. Finally, it is important to objectively establish whether the therapy has been successful and which components were particularly valuable. This paper suggests that Cognitive Behaviour Therapy could be an effective treatment for the mood disorders associated with Asperger's Syndrome but to date, we do not have an extensive body of research studies that substantiate it's effectiveness or extensive clinical experience in how to modify the therapy components for this clinical population. However, the next millennium should begin with the start of such research and clinical practice.

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