



# A novel intervention devised to address the needs of high-functioning children with autism based on the principles of Drama in Education, Cognitive and Behavioural theories.

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## Introduction

Children on the autism spectrum lack the intrinsic motivation to engage in the social world early in development, missing out on learning opportunities available to their typically developing peers who become increasingly knowledgeable about interpersonal relationships as they get older and obtain more experiences. As a result, they struggle with social relationships finding it hard to make sense of the rules of social interaction that others take for granted.

The current study aims to introduce an intervention model primarily designed to provide children on the autism spectrum with the motivation to engage in the social world so that they can avail from learning opportunities in their environment, as opposed to teaching them a set of skills. Drama is used as a means to entice them into engaging in social interactions and providing them with positive experiences that will reinforce further engagement, thereby more learning opportunities. Acknowledging the importance that cognitive and environmental factors play in shaping behaviour, the model proposed in this study incorporates into the drama a number of cognitive and behavioural concepts and techniques, such as reinforcement, modelling, behaviour momentum, coping and problem solving, pivotal response training. The model is called hereafter Cognitive Behaviour Drama (CBD).

## Model

Given that the deficit in social communication is the hallmark of autism, the focus of the proposed intervention model is to provide children on the autism spectrum with a safe environment where they can learn and practise competences associated with communicative success, such as initiating and maintaining reciprocal conversations, identifying and expressing emotions, taking perspective, empathising, reading verbal and non verbal cues, and formulating arguments. However, individual areas of concern for each child, such as behavioural deficits or excesses, fears and anxieties that may additionally hamper well being and social functioning are also addressed.

The method involves engaging the children in fictional scenarios tailored around their strengths and special interests and encouraging them to seek various solutions on numerous problems that will lead them to an understanding of causal relationships (e.g. how a different course of action/behaviour may affect the outcome of an interaction). Participants are not explicitly instructed to perform target skills but rather led through a problem solving methodology to understand the functions that these skills serve and how these could help them to achieve their objectives. Motivation is based on understanding as opposed to reward, and reinforcement arises as a natural consequence. The approach does not rely on contrived reinforcement but rather uses drama as an 'establishing operation' to provide naturalistic intrinsic motivation for social engagement

## Method

The effectiveness of the model was examined through a series of interventions designed to address a number of problems commonly presented in children with autism, including but not limited to difficulties in social communication and phobic avoidances. The study involved six separate interventions and employed both single case and group designs. Overall 8 children aged between 6 to 13 years, diagnosed with ASD participated in the study. Outcomes were measured using theory of mind tests, executive functioning tests, behavioural observations, pre and post intervention standardised social competence questionnaires for parents and teachers.

## Results

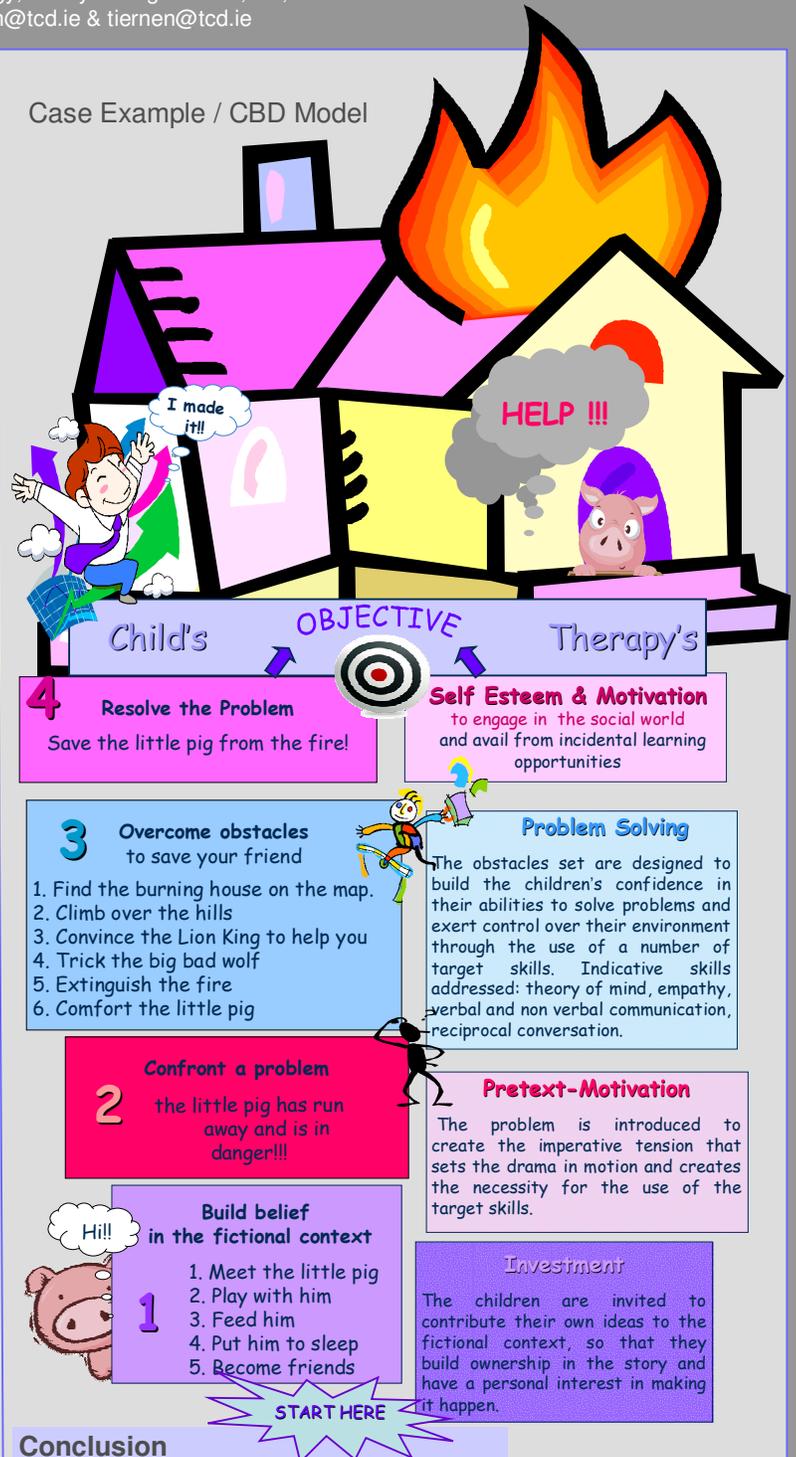
Collectively, the results indicated positive changes in the self esteem and behaviour of all eight participants. In particular improvements in the ability to solve theory of mind tasks were noted in the younger group; and qualitative improvements in social communication, in terms of verbal (content) and non verbal expression (body posture, vocal expression, fluency, eye contact, reduction of ritualistic mannerisms) were noted in the older group. Finally, decreases in fear related behaviours were noted in the three cases of children for whom a reduction of fear motivated avoidance was the intervention's target. Reliable changes in the standardised measures of social competence were not observed.

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## Case Example / CBD Model



## Conclusion

The findings from the applications of the CBD model on a number of problems associated with ASD suggested its potential in bringing about positive changes in all participants behaviour and self esteem. However, there are a number of limitations in the current study, such as the small size of the sample, the lack of control groups and inadequacy of impact measures that need to be addressed in future research in order to establish the methodological validity of the CBD model as evidence based practise. Despite its methodological shortcomings, the value of the current study primarily lies in introducing an intervention model that addresses two of the most commonly occurring limitations noted in previous studies: lack of motivation to engage in therapy and lack of generalisation of skills outside the therapeutic context. Given that unlike most social skills interventions the objective here is not on teaching specific skills but rather nurturing the motivation for learning, generalisation is an intrinsic component and not an added-on element into the structure. Furthermore, the inherently enjoyable nature of the intervention, provides an unobtrusive and ethically acceptable source for encouraging children on the autism spectrum to submit themselves to a programme intended to bring about positive changes in their behaviour. Further research is needed to determine appropriate methods to evaluate progress more systematically in different contexts, and over a greater length of time, as well as to establish whether improvements are translated into global changes in social functioning that are clinically as well as statistically significant.