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'Lego Therapy' Club for children with Autism Spectrum Disorder

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'Lego Therapy' Club for children with high functioning autism and Asperger's syndrome

Charlotte Evans, David Sanders & Rosie Knight

This article describes lego therapy club within a Child and Adolescent Mental Health Service (CAMHS) setting. Children with a diagnosis of autism spectrum disorder (ASD) were invited to attend an eight week 'Lego Therapy' Club to improve social skills with peers.

IT HAS BEEN suggested that Lego can be used to motivate learning and behaviour change by drawing upon the child's natural interests (Owens et al., 2008). Previous research has supported the use of Lego as a therapeutic medium for improving social competence in children with ASD (e.g. McMahon, Lerner & Britton, 2013; Legoff & Sherman, 2006). Legoff (2004) found that Lego play materials appear to be an effective medium for working with ASD due to the rule-based mechanical system of the materials. This study indicated short-term gains in social development from the Lego-based interactive play groups (Legoff, 2004). Improvements in a broad range of social skills were found over a three year follow-up period, when children with a diagnosis of ASD were involved in 'Lego therapy' groups, compared to those who were not (Legoff & Sherman, 2006).

What is Lego Club?

The aim of the Lego group is to encourage and develop a range of social skills for children with ASD including:

- sharing;
- turn-taking;
- following social rules;
- using names; and
- problem-solving.

The Lego Club was facilitated by a clinical psychologist, a trainee clinical psychologist and assistant psychologists from a Tier 3 CAMH service. The club was offered to children aged

6–11 years with the autism spectrum diagnoses. Those within the clinic who had a special interest in Lego were invited to attend – all of whom were boys. The club ran weekly on two separate occasions, for eight weeks, with different groups of children. For the first group, 10 boys were invited and seven attended; for the second group, out of the 15 boys were invited, 11 attended. There was one drop-out across the two groups.

At the beginning and end of the eight weeks there was a 'parents/carers session' offered for questions and answers and to get feedback about the group. Whilst the Lego Club was running, parents/carers were offered a space to meet. During the final session parents/carers received a written report about their child's progress throughout the eight weeks of the club and each child received a colourful certificate for taking part (Figure 1).

At the beginning of each session all children and helpers received a name badge to facilitate familiarity between group members. The children were then divided into four groups of three with each group having an adult present to facilitate team work. The group was structured in a way which meant the children had to work together as a team to complete set Lego models. There were three roles which each child had a turn to play – the Planner, the Searcher and the Builder.

The Planner used descriptive language to explain to the Searcher which Lego piece to find next and direct the Builder where to place the Lego pieces to build the model. The

Lego play materials appear to be an effective medium for working with ASD.



Figure 1: Lego Club certificate

Searcher used observation and listening skills to search for the Lego pieces as instructed by the Planner. The Builder also used listening skills, sharing and turn-taking to construct the model as instructed by the Planner. All three roles required patience, team work and problem solving for the model to be built successfully. The roles were rotated throughout the session so each child had a chance to try each one and practice the different responsibilities.

Feedback from children and parents/carers

Across the two 'Lego Therapy Club' groups, 16 children returned completed short questionnaires. Almost all the children reported that they would tell other children that Lego club was 'really good' ($n = 14$). This was measured using a Likert scale of cartoon faces, ranging from 'really good' to 'not very good'. The feedback also included an open-ended

section to give the children an opportunity to describe what they liked best about Lego Club (e.g. 'We got new friends' and 'That you got to build Lego') and what they least liked (e.g. 'Not enough weeks'). A large proportion of the children reported that there was 'nothing' they didn't like about Lego Club ($n = 9$), things that the children reported they did not like included being the Searcher ($n = 2$) and getting stuck ($n = 2$).

In order to understand parents'/carers' satisfaction regarding the Lego Club a 14-item questionnaire was developed, this was completed by 14 parents/carers across the two groups. This used four point Likert scales (strongly agree to strongly disagree) and also included space for further comments. Encouragingly, parents/carers agreed or strongly agreed when asked whether they felt they and their child benefited from attending the club (agree $n = 6$;

strongly agree $n = 8$) and whether they felt there was a need for more groups like this to be provided by the NHS (strongly agree $n = 14$). The potential for use of 'Lego therapy' within the school system is already evident (Legoff & Sherman, 2006) and this is something which was brought up during the parent/carer's session. The parent/carers as a group were keen to try and initiate Lego clubs within their children's schools (agree $n = 3$; strongly agree $n = 10$).

In general, parents/carers reported that their child had made a friend from attending the club (agree $n = 6$; strongly agree $n = 5$). Parents/carers reported in the further comments section that the group was very supportive and it had helped them to understand ASD further. They found it useful to share their experiences with other parents/carers, to know that they were not alone in their difficulties, and to receive comforting advice on how to manage their child's behaviour more effectively, from others in a similar position.

In the final parents/carers session, several parents/carers commented that it would be helpful to have a short talk by a member of the multidisciplinary team at CAMHS to further understand ASD and how to effectively manage behaviour using advice from professionals. They also agreed that having some books available for information would be helpful. Based on this feedback, in order to improve future Lego clubs we will introduce some short talks or hand outs from professionals, along with selected relevant books. We noticed that parents/carers appreciated details for further clubs for children on the autism spectrum. As a result, it may be helpful at the next club for the contact details of these groups to be given out as part of an information pack.

Reflections

The Lego Club overall was thought to be a success and helpful for both the children and their parents/carers. The group facilitators, the parents/carers and the children themselves observed that the children made new friends. The children were also seen to be going through into the room with more independence as the weeks went on. In addition, unstructured play such as 'tag' and talking to

one another without facilitation increased. The children were proud of the models they had built – they enjoyed showing one another and the parents/carers what they had made and having their photographs taken at the end to keep. The nature of the Lego Club meant that it was easy for the children to pick up and for them to know what to expect as it is a structured and regulated group, which has been found to suit children with ASD (Legoff, 2004).

One of the advantages of such a group is that it is relatively inexpensive to run. It was facilitated by a small group of CAMHS workers (assistant psychologists and trainee clinical psychologist) and supervised by a clinical psychologist. The clinical psychologist was available for parents/carers to speak to during the sessions. The group was held at the local library, which has a more informal atmosphere than a clinical setting. It felt important to the facilitators that the club was to be held somewhere different to the CAMHS building where the children had often been assessed and diagnosed.

We feel that it would be useful in future Lego Club groups for the children to have some free time to play with the models they have made. This is something which wasn't included in the structure of previous clubs and was requested by the children attending. A recent review of group-based social skills interventions for adolescents (10–20 years) diagnosed with ASD identified child-directed learning to promote regular, positive social interaction among group members, through collaboratively engaging in an activity – such as building things with Lego – which is of interest to the group (McMahon, Lerner & Britton, 2013). This suggests that groups such as the Lego Club described in this report could be beneficial to both children and adolescents who are diagnosed with ASD.

Locally, there is not a large variety of clubs or groups uniquely for children with a diagnosis of ASD to attend, which could be another reason why this club was well attended and received by children and their parents/carers alike. Parents/carers reported it to be a useful source of information and support, and some planned to keep in touch when the club finished.

In conclusion, we feel that the Lego Club was successful and uses the personal interests of the children attending to facilitate their learning and social skills. Due to the club being cost effective to run and the positive feedback received by those who attended, it is something which could be easily facilitated by other services for children who may have autism spectrum traits.

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