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First Joint Research by City University of Hong Kong and Bricks for Autism United Kingdom shows LEGO®-Based Therapy Effective in Improving Social Behaviors of Autistic Children

Background

Autism Spectrum Disorder “ASD” is a developmental disorder, and people with ASD generally encounter various levels of difficulties in their social, communication and behavioural aspects. In Hong Kong, the number of ASD students in ordinary public schools has a dramatic increase of 114% from 4,150 in 2012/13 to 8,870 in 2017/18. In cooperation with Dr. Andrew Low Yiu Tsang at City University of Hong Kong, Department of Social and Behavioural Sciences, and with the assistance from Dr. Gina Gómez de la Cuesta, Founder and Director at Bricks for Autism C.I.C. United Kingdom, yNOTplay Play Therapy Social Enterprise with its three recognized LEGO®-Based Therapy facilitators organized the first research program on the effectiveness of LEGO®-Based Therapy for the autistic children in Hong Kong, namely “Magic BRICKS Club Social Program”.

The goal of the program is to help the children to enhance their social and communication skills through alluring collaborative play using LEGO® bricks as the vehicle, and research would be conducted to assess the result. The program offered ten LEGO®-Based Therapy sessions (60-min per session) to 9 qualified children. In the research, the children were divided into 3 groups of three, and each group was led by a recognized facilitator. Children were asked to build a LEGO® set together as a group within 45-min and each team member took turn playing a role as either a “Supplier”, “Engineer”, or a “Builder”. In the last 15-min of each session, there was a free play bricks-building time and they were encouraged to share their works. In order for the parents to understand what LEGO®-Based Therapy is and how it works, two parents’ sessions were additionally arranged during the program.

Research Result

The result shows that social behaviors of the children were improved significantly after attending the 10 sessions, which is a statistically significant difference; particularly in the peer problem and conduct problem aspects, a score of 4.78 (1.39) and 3.56 (2.35) before the treatment were reduced to 4.11 (2.03) and 3.11 (2.37) after the treatment respectively. In view of the social ability, the result though did not show a statistically significant difference upon completion of the program, there were signs of positive changes in the children’s social behaviors after the treatment in 6 out of 9 cases.



We conducted follow-up calls to 6 families after completion of the program. Family members notice on-going changes and improvements on their children in social communication including focusing, patience, cooperation, sharing and verbal expressions, etc. There was also noticeable improvement in children's emotional control such as reduced frequency on screaming, as well as willingness to greet and smile to others.

Recommendations

This research has indicated that LEGO®-Based Therapy can be applied on the autistic children in Hong Kong to enhance their social communication skills through a common interest. The skills learnt during the treatment can be generalized in their daily lives which can re-build a better family relationship. If LEGO®-Based Therapy can be brought into families and schools as one of their social building activities, we believe that the children would be better integrated into their schoolings, families and social communities.

Media Enquiry

For further enquiries on the research, please contact Assistant Professor Dr. Low Yiu Tsang Andrew at City University of Hong Kong, Department of Social and Behavioural Sciences (email : yiutlow@cityu.edu.hk, phone no. : 3442 8994). For the enquiries on the program, please contact Ms. Canace Yee (email : ynotplayhk@gmail.com, phone no. : 9790 2370), Founder and Play Therapist, yNOTplay Play Therapy Social Enterprise. For press enquiry, please feel free to contact Mr. Evan Wong (email : evan@opr-pro.com, phone no. : 2253 1161 / 9601 8177).

Remarks :

LEGO®-Based Therapy was introduced through a 3-year research by a Neuropsychologist, Dr. Daniel B. Legoff in Philadelphia, United States. It was proven that LEGO®-Based Therapy could help autistic children in their social competence development in 7 areas including verbal and non-verbal communication, turn taking and sharing, task focus, compromise, collaborative problem solving, joint attention and joint creativity (LeGoff et al., 2014) . Dr. Gina Gómez de la Cuesta then brought LEGO®-Based Therapy to United Kingdom. She has continued to develop and conduct research in The University of Cambridge Autism Research Centre as well as extending the treatment to those with social difficulties but not only to the autism.

