Chinese percussion training improves social functioning of adolescents with developmental disorders

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Introduction
Music therapy has been increasingly employed in recent years to help tackle various social and communication difficulties among adolescents with developmental disorders. It is found to be effective in improving the social and communication skills among people with autistic spectrum disorder (ASD). There have also been attempts to control impulsive behaviour in adolescents with attention-deficit and hyperactivity disorder (ADHD) by music therapy. The Hospital Authority Chinese Orchestra and Adolescent Medical Centre of Queen Elizabeth Hospital have started a Chinese percussion workshop for adolescents with ASD, ADHD, learning disability or other emotional and behavioural problems aiming to improve their social functioning since 2010.

Objectives
To evaluate the effect of Chinese percussion workshop in impulse control, social and communication skills among adolescents with various developmental, behavioural or emotional difficulties

Methodology
Adolescents aged 12-23 years old with diagnoses of ASD, ADHD or learning disability who participated in the Chinese percussion workshop in 2014 were recruited. All participants received percussion training of 10 hours divided into 5 sessions throughout the workshop at least once. Pre- and post-workshop questionnaires were distributed to each participant. Primary outcome measure was a five-pointed self-rating scale in the following four domains: concentration, social skills, impulse
control and communication skills (1= poor; 5=very good). Questionnaires were also distributed to social work interns who assisted in the workshop.

**Result**
Altogether 14 pairs of valid questionnaires were collected. The pre- and post-workshop mean scales showed an increasing trend in all four domains: 3.44±1.19 and 4.27±1.03 in concentration domain, 3.40±1.08 and 3.64±1.29 in social skills domain, 3.64±1.04 and 4.09±1.07 in impulse control domain and 3.60±0.96 and 4.05±1.09 in communication skills domain. Also 100%, 80%, 100% and 80% of social work interns indicated an improvement in participants’ performance regarding the concentration, social skills, impulse control and communication skills domains respectively. 63% of participants made new friends after the workshop. Only 20% of adolescents who had participated the workshop more than once failed to make new friends, and this increased to 50% among new participants (p=0.044). Conclusion: The workshop improved social functioning, broadened and maintained the social circle in adolescents with developmental disorders. A longer term study with larger sample size will better determine its effectiveness.