

A Study on Applicability and Effectiveness of CBT-CSCA on Adults with Autism Spectrum Disorder

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Background

In light of the distinctiveness of Chinese culture as compared to the West, the CBT-Context-Based Social Competence Training for ASD (CBT-CSCA) was developed locally to cater the unique cultural and service needs for individuals with ASD in Hong Kong. Based on the social competence model proposed by Yager and Iarocci [1], the CBT-CSCA is a 15-weekly social competence programme incorporating cognitive-behavioural principles and cultural-sensitive training elements. Its effectiveness in improving autistic symptoms, general psychopathology and parent stress was previously demonstrated in a local sample of adolescents with ASD [2]. With the emerging positive results in adolescents, whether the group training could be applied on adults with ASD raised our clinical interests.

Objectives

The current study aimed at investigating the applicability and effectiveness of an adapted version of CBT-CSCA in adults with ASD (aged 18 to 29).

Participants

Twenty-six adults (aged 18 to 27 years, with an FSIQ above 80) completed the social competence training.

Measurements

The following measures were completed before/after the training, reported by the participants and their parents.

- **Multidimensional Social Competence Scale-Chinese Version (MSCS-C)**
- **Autism Spectrum Quotient-10 items-Chinese version (AQ-10-C)**

Intervention

The CBT-CSCA adolescent protocol was modified for the adult group. Session content is summarized in Table 1. Significant changes included condensing sessions on behavioural skills, friendship-building skills, and adding training on meta-cognitive skills, e.g. gistful thinking and cognitive flexibility.

Table 1. Adapted version of CBT-CSCA in adults with ASD

Category	Session	Objectives
Social Context	Session 1: Motivation and Knowledge	<ul style="list-style-type: none"> • Introduce to the group • Enhance motivation in group participation • Understand and detect hidden social rules
	Session 2: Active Listening	<ul style="list-style-type: none"> • Learn active listening skills • Detect signals of exiting conversations • Understand four conversation blockers
	Session 3: Conversation	<ul style="list-style-type: none"> • Learn how to initiate, maintain and end conversations
Behaviour	Session 4: Electronic Communication	<ul style="list-style-type: none"> • Practice conversations in different social contexts • Learn skills in electronic communication
	Session 5: Group Communication	<ul style="list-style-type: none"> • Understand interpersonal circle • Learn how to join group activities and detect unwelcome signals.
	Session 6: Recognition and Expression	<ul style="list-style-type: none"> • Learn how to recognize seven primary emotions • Practice expressing emotions facially, gesturally and tonally
Emotion	Session 7: Recognition and Expression	<ul style="list-style-type: none"> • Learn how to recognize secondary emotions
	Session 8: Regulation	<ul style="list-style-type: none"> • Learn skills to handle criticisms and related negative emotions.
	Session 9: Empathy	<ul style="list-style-type: none"> • Understand what empathy is • Learn how to deliver empathic responses
Cognition	Session 10: Social Inference	<ul style="list-style-type: none"> • Learn how to make inference on others' thoughts
	Session 11: Social Inference	<ul style="list-style-type: none"> • Learn how to detect and respond to incongruence between literal and latent meaning
	Session 12: Gistful Thinking	<ul style="list-style-type: none"> • Learn how to detect and respond to key messages in speeches
Integration	Session 13: Cognitive Flexibility	<ul style="list-style-type: none"> • Understand flexible and rigid thinking • Understand cognitive bias • Learn ways to enhance cognitive flexibility
	Session 14: Planning Group Activities	<ul style="list-style-type: none"> • Apply skills in planning group activities
Graduation	Session 15: Graduation	<ul style="list-style-type: none"> • Share learning in the programme • Celebrate for graduation

Results

Compared to pre-training, significant improvements in overall social competence at post-training was found in both self-report and parent-report.

Table 2. Result of the CBT-CSCA.

	N	Pre		Post		t	p	Cohen's d
		Mean	S.D.	Mean	S.D.			
Self-ratings								
AQ-10-C	26	2.36	0.35	2.44	0.30	1.04	.306	0.25
MSCS-C Total score	26	3.17	0.34	3.30	0.46	2.25	.034*	0.32
Parent-ratings								
AQ-10-C	17	2.45	0.33	2.46	0.22	0.09	.932	0.02
MSCS-C Total score	17	2.73	0.36	2.85	0.42	2.49	.024*	0.31

*p<.05; AQ-10-C: Autism Spectrum Quotient-10 items-Chinese version; MSCS-C: Multidimensional Social Competence Scale-Chinese version

Conclusion

The study provided initial evidence support to the applicability and effectiveness of CBT-CSCA as a social competence training for adults with ASD.

Acknowledgement

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References

1. Yager, J., & Iarocci, G. (2013). The development of the multidimensional social competence scale: a standardized measure of social competence in autism spectrum disorders. *Autism Research*, 6(6), 631-641.
2. Chan, R. W. S., Leung, C. N. W., Ng, D. C. Y., & Yau, S. S. W. (2018). Validating a Culturally-sensitive Social Competence Training Programme for Adolescents with ASD in a Chinese Context: An Initial Investigation. *Journal of Autism and Developmental Disorders*, 48(2), 450-460.