

# The effects of art therapy with various art media on emotion regulation strategies, stress, hormone levels and resilience for junior secondary school students

<b>Submission date</b> 14/02/2022	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered
<b>Registration date</b> 28/02/2022	<b>Overall study status</b> Completed	<input type="checkbox"/> Protocol
<b>Last Edited</b> 28/02/2022	<b>Condition category</b> Mental and Behavioural Disorders	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

### Background and study aims

Serious emotional problems of adolescents have become a pressing issue in Hong Kong (HK). While causes of the problems are inconclusive, effective measures to combat stress and control teen suicide carry vital significance at the present. As the literature shows that art therapy has a positive impact on emotion, this study aims to specifically investigate the effect of art therapy with mixed media (ATMM) by comparing it with a control group, in improving psychophysiological stress responses, which includes changes in various signs of emotion, interaction between cognition and emotion, and physiological stress response by analyzing salivary cortisol.

### Who can participate?

Hong Kong junior secondary students, aged 11-15 from band 1 - 2 were recruited for the study.

### What does the study involve?

Students will be randomly allocated to receive either the ATMM group for eight 1.5-hour weekly sessions or to receive no additional treatment. The participants in the no treatment group will receive two half-day expressive arts workshops after the study has finished.

### What are the possible benefits and risks of participating?

Participants will be able to receive 8 free art therapy sessions that will be instructed by registered art therapists. During the session, participants can learn different skills and techniques to create clay art pieces, freely express their own thoughts and emotions through art activities, which have possible effects of soothing emotions. Regardless of the group allocation results, both experimental group and waitlist control group participants (subsequently) will receive the free art therapy sessions. The procedure has no known risks.

### Where is the study run from?

Hong Kong Baptist University (China)

When is the study starting and how long is it expected to run for?  
August 2018 to March 2021

Who is funding the study?  
Research Grants Council, University Grants Committee, Hong Kong (China)

Who is the main contact?  
Dr Joshua Nan  
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## Contact information

### Type(s)

Public

### Contact name

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## Additional identifiers

## Study information

### Scientific Title

A study on the effects of art therapy with mixed media on emotion regulation strategies, psychological stress, cortisol rhythm, and resilience for junior secondary students: A randomized controlled trial

### Study objectives

The study aims to investigate and compare the effects of an art therapy program with mixed media and an active control group with conventional afterschool tutorial service on the following aspects:

1. Improving emotion regulation strategies;
2. Improving positive affective states;
3. Alleviating negative affective states;

4. Alleviating deficit of cognitive process in affect, exhibited in alexithymia,
5. Reducing psychological and physiological stress levels, and
6. Enhancing resilience.

### **Ethics approval required**

Old ethics approval format

### **Ethics approval(s)**

Approved 01/08/2018, Faculty Research Grant Category II (FRGII) of the HK Baptist University (Hong Kong Baptist University Road, Kowloon Tong, Hong Kong; +852 3411 6461; hkbu\_rec@hkbu.edu.hk), ref: FRG2/17-18/028

### **Study design**

Randomized controlled interventional trial

### **Primary study design**

Interventional

### **Study type(s)**

Treatment

### **Health condition(s) or problem(s) studied**

Depression

### **Interventions**

Participants from the art therapy with mixed media (ATMM) group attended eight 1.5-hour weekly sessions of art development class, with approximately 10 students in each group that were led by an experienced art therapist. During the early phase of the session, various kinds of art media have been introduced and shown on how the art media can facilitate expressions of different facets of themselves. The participants will be provided with a safe platform to create thematic artworks in the following sessions with various kinds of art materials and freely express themselves via art.

The control (CON) group received afterschool tutorial groups for academic support and extracurricular activities for social support during the treatment period of the ATMM group. To comply with ethical principles, the CON group members were given two half-day expressive arts workshop as compensation after the completion of the study.

### **Intervention Type**

Behavioural

### **Primary outcome(s)**

Measured at T0 (baseline), T1 (after completion of the intervention), and T2 (8 weeks following the completion of the intervention):

1. Salivary cortisol measured using the "Salivette" kits (Starstedt, Ag & Co., Numbrecht, Germany)
2. Emotion regulation measured using the State Difficulties in Emotion Regulation Scale (S-DERS)
3. Emotion measured using the Positive and Negative Affect Schedule (PANAS)
4. The 25-item Connor-Davidson Resilience Scale (CD-RISC)
5. Emotional awareness measured using the Toronto Alexithymia Scale (TAS-20)

### **Key secondary outcome(s)**

Experiences of the intervention measured using focus groups at completion of the intervention

**Completion date**

31/03/2021

## Eligibility

**Key inclusion criteria**

1. Hong Kong junior secondary students, aged 11-15 from band 1 – 2 were recruited for the study.
2. S.2-3 students, aged between 11-15;
3. Ability to understand and communicate in Cantonese;
4. Medical conditions that are likely to limit group participation during the course of the 6-week program will be excluded; and
5. Willing to perform art making activities in group activities with minimal assistance.

**Participant type(s)**

Healthy volunteer

**Healthy volunteers allowed**

No

**Age group**

Child

**Lower age limit**

11 years

**Upper age limit**

15 years

**Sex**

All

**Key exclusion criteria**

Participants were excluded if they had been clinically diagnosed with depressive disorder, anxiety disorder, or any other psychiatric disorder that required medical treatment or professional intervention during the past 12 months, diagnosed with other medical conditions or receiving counselling treatment during the program. Both parents and the participants gave written informed consent prior to the screening procedures and joining the study.

**Date of first enrolment**

01/09/2019

**Date of final enrolment**

30/12/2020

## Locations

**Countries of recruitment**

China

Hong Kong

**Study participating centre**

**Hong Kong Baptist University**

Room 1012A, 10/F

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Hong Kong Baptist University Road

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## Sponsor information

**Organisation**

Hong Kong Baptist University

**ROR**

<https://ror.org/0145fw131>

## Funder(s)

**Funder type**

University/education

**Funder Name**

Research Grants Council, University Grants Committee

**Alternative Name(s)**

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**Funding Body Type**

Private sector organisation

**Funding Body Subtype**

Universities (academic only)

**Location**

Hong Kong

# Results and Publications

## **Individual participant data (IPD) sharing plan**

All data generated or analysed during this study will be included in the subsequent results publication. Acquired participant level raw data will only be included in results publications /conferences of this study and will not be accessible for the public. All participants will be indicated by a participant code, no identifiable personal information will be stored with the data or published. All datasets will be destroyed within 3 years after the publication of research results.

## **IPD sharing plan summary**

Published as a supplement to the results publication