# A therapeutic photography intervention trial for autistic youth (age 16-25 years) to improve well-being

Submission date	Recruitment status	[X] Prospectively registered		
04/10/2024	Recruiting	∐ Protocol		
Registration date	Overall study status	Statistical analysis plan		
08/10/2024	Ongoing  Condition category  Mental and Behavioural Disorders	☐ Results		
Last Edited		Individual participant data		
13/06/2025		[X] Record updated in last year		

## Plain English summary of protocol

Background and study aims

This study aims to promote well-being in autistic people. Like many people with disabilities, autistic youth are disproportionally impacted by: lack of access to evidence-based care, reduced scientific and public understandings of their specific needs, and intersecting identities that place them at greater risk of marginalization (e.g., identifying as LGBTQ2S++, living in poverty, being unemployed, experiencing co-occurring health conditions and disabilities). Consultations with autistic community members reveal a desire to prioritize research and supports that focus on acceptance of neurodiversity and on positive psychological outcomes (i.e., the process of experiencing positive emotions and psycho-social functioning). Within this context, this study aims to test the feasibility and effectiveness of a simple, inexpensive, and easily-implemented intervention on increasing the well-being of autistic people in a way that appreciates them, is founded in their lived experience, and acknowledges their intersecting identities to help them to thrive. This intervention - therapeutic photography - involves taking pictures of environments that evoke participants' subjective experiences of well-being. The intervention consists of taking photographs linked to a different positive psychological constructs each week for four consecutive weeks (i.e., happiness, connectedness, optimism, and engagement/perseverance). At the end of each week, participants are asked to set aside time to reflect on their photos, select and upload four which they feel best represent the emotion, and then answer and upload reflection questions about each selected photo.

## Who can participate?

Any autistic person between 16-25 years of age can self-refer to participate in this research.

## What does the study involve?

This study involves recruiting autistic youth from a variety of sources including community organizations, online advertising, and social media. Caregivers are allowed to assist any participants who identify support or communication needs with any aspects of the study including enrollment, attending lab visits, and completing the intervention at home. After completing informed consent and demographics questions at home, participants will be randomized into one of two groups: Treatment (T) and Control (C). All participants will visit the

lab twice, with visits placed approximately 5 weeks apart. Participants in the T group will complete the intervention between their visits. Participants will work with two different research assistants, one who will be blind to the condition they have been assigned to. For all participants, change in well-being over time is the primary outcome of interest. Well-being will be examined by measuring the following during each lab visit: 1) psychological self-report measures of well-being and related constructs (e.g., thriving, mental health), and 2) a physiological measure thought related well-being (i.e., heart rate variability or HRV, derived from electrocardiogram data). During the first lab visit, additional information will be collected to control for individual differences such as cognitive and language abilities, autistic traits, and previous experiences of adversity. During the second lab visit, participants will complete a brief computerized tracing task designed to induce mild stress and watch a slideshow of pictures to facilitate measurements of physiological reactivity and recovery. At the end of the intervention, participants in the T group will engage in a semi-structured interview with the unblinded research assistant to gather qualitative data about their experience with the intervention.

What are the possible benefits and risks of participating?

It is hypothesized that therapeutic photography will lead to improvements in well-being, a potential benefit for all participants in the study. Since the study involves training all participants to conduct therapeutic photography independently or with the help of a support person, this means all participants will have learned a positive psychology activity they can continue to use following the intervention without requiring additional resources. This may mean that participants can continue to increase their well-being and thriving over the long term. The potential risks of participating are minimal. During lab visits, participants will place sticky electrodes with adhesive backings on their wrists and ankles to collect electrocardiogram data. These can leave a sticky residue on the skin which could be uncomfortable. Physical discomfort or skin irritation may occur as a result of the measurement. Emotionally, participants may experience discomfort, distress, or other negative emotions (e.g., embarrassment, anxiety) when having to journal (at home) or answer questions (during lab visits) about how they feel. Participants may decline to answer any questions that make them feel uncomfortable or overwhelmed.

When is the study starting and how long is it expected to run for? Participants can enroll in the study between November 2024 and October 2026; data collection is expected to end in October 2026, though it may end early if we recruit enough participants earlier.

Where is the study run from?

This research is being conducted at York University in Toronto, Canada.

Who is funding the study?

The Social Sciences and Humanities Council of Canada's New Frontiers in Research Fund.

Who is the main contact?

The principal investigator, Dr. Jonathan Weiss (jonweiss@yorku.ca)

#### Study website

https://www.yorku.ca/health/lab/ddmh/therapeutic-photography-and-wellbeing/

# Contact information

Type(s)

Public, Scientific, Principal Investigator

#### Contact name

Dr Jonathan Weiss

#### **ORCID ID**

https://orcid.org/0000-0002-5849-7334

#### Contact details

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# Additional identifiers

## **EudraCT/CTIS** number

Nil known

#### **IRAS** number

#### ClinicalTrials.gov number

Nil known

# Secondary identifying numbers

Nil known

# Study information

#### Scientific Title

Mobilizing environments to improve the psychological and physiological experiences of well-being in autistic people: a feasibility randomized controlled trial

#### Acronym

**TPARCT** 

## **Study objectives**

Current study hypothesis as of 13/06/2025:

- 1. The RCT method and the Therapeutic Photography intervention will be feasible for participants.
- 2. Participants who engage in therapeutic photography will show greater improvements in their psychological well-being compared to those who do not engage in therapeutic photography.
- 3. Participants who engage in therapeutic photography will show greater improvements in their physiological well-being compared to those who do not engage in therapeutic photography.

#### Previous study hypothesis:

1. The randomized controlled trial (RCT) method and the Therapeutic Photography intervention

will be feasible for participants.

- 2. Participants who engage in therapeutic photography will show greater improvements in their psychological well-being compared to those who are on the waiting list for therapeutic photography.
- 3. Participants who engage in therapeutic photography will show greater improvements in their physiological well-being compared to those who are on the waiting list for therapeutic photography.

#### Ethics approval required

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#### Ethics approval(s)

Approved 26/11/2024, The Human Participants Review Committee (HPRC), Office of Research Ethics, York University (4700 Keele St, North York, M3J 1P3, Canada; +1 (0)416-736-5914; ore@yorku.ca), ref: e2024-295

#### Study design

Single-center interventional assessor-blinded randomized control feasibility trial

#### Primary study design

Interventional

#### Secondary study design

Randomised controlled trial

#### Study setting(s)

University/medical school/dental school

## Study type(s)

Treatment

#### Participant information sheet

https://www.yorku.ca/health/lab/ddmh/wp-content/uploads/sites/407/2024/10/TPhoto-Flyer\_2-Paged.pdf

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

Enhancing the well-being of autistic youth

#### **Interventions**

Current interventions as of 13/06/2025:

Upon providing informed consent, participants will be randomized into one of two conditions using a random number generator: Those in the "Treatment" condition (T) will be trained at the end of the Time 1 visit to participate in a 4-week therapeutic photography intervention. These participants will be instructed to take pictures that relate to a different aspect of their well-being each week: happiness, connectedness, optimism, and engagement/perseverance. At the end of each week, they will be asked to choose four photos from the week and upload them along with answers (typed or audio-recorded) to four reflection questions for each photo. Those in the "Control" condition (C) will not receive this training and will be instructed to keep track of any supports they access to document treatment as usual. Five weeks after their first visit, all participants will return for a Time 2 visit to the lab, where outcome variables will again be measured.

#### Previous interventions:

Upon providing informed consent, participants will be randomized into one of two conditions using a random number generator: Those in the "Treatment Immediate" condition (TI), will be trained at the end of the Time 1 visit to participate in a 4-week therapeutic photography intervention. These participants will be instructed to take pictures that relate to a different aspect of their well-being each week: happiness, connectedness, optimism, and engagement /perseverance. At the end of each week, they will be asked to choose four photos from the week and upload them along with answers (typed or audio-recorded) to four reflection questions for each photo. Those in the "Waitlist Control" condition (WC), will not receive this training and will be instructed to keep track of any supports they access to document treatment as usual. Five weeks after their first visit, all participants will return for a Time 2 visit to the lab, where outcome variables will again be measured. At the end of the Time 2 visit, the WC condition participants will be trained to complete the intervention in the same manner as the TI condition. Ten weeks after their first visit, only the WC group will return for a Time 3 visit to the lab, where they will again complete the outcome measures.

#### Intervention Type

Behavioural

#### Primary outcome measure

Current primary outcome measures as of 13/06/2025:

- 1. Psychological well-being is measured using three Likert scales (EPOCH Measure of Adolescent Well-being, The PERMA-Profiler, The PROMIS-MP: The Meaning and Purpose Scale, and the Mental Health Continuum Short Form) at baseline and 5 weeks
- 2. Physiological well-being is measured using resting Heart Rate Variability (HRV) at baseline and 5 weeks

Previous primary outcome measures:

- 1. Psychological well-being is measured using three Likert scales (EPOCH Measure of Adolescent Well-being, The PERMA-Profiler, and the Mental Health Continuum Short Form) at baseline and 5 weeks (all), and 10 weeks (WC group only)
- 2. Physiological well-being is measured using resting Heart Rate Variability (HRV) at baseline and 5 weeks (all), and 10 weeks (WC group only)

#### Secondary outcome measures

Current secondary outcome measures as of 13/06/2025:

Secondary outcome measures

- 1. Anxiety symptoms will be measured using a Likert scale (GAD-7: The Generalized Anxiety Disorder 7-item Scale) at baseline and 5 weeks (all), and 10 weeks (WC group only).
- 2. Depressed mood symptoms will be measured using a Likert scale (PHQ-9: The Patient Health Questionnaire 9-item Scale) at baseline and 5 weeks (all), and 10 weeks (WC group only).
- 3. Meaning and purpose will be measured using a Likert scale (PROMIS-MP: The Meaning and Purpose Scale) at baseline and 5 weeks (all), and 10 weeks (WC group only).
- 4. Emotion regulation will be measured using a Likert scale (ER-Q: The Emotion Regulation Questionnaire) at baseline and 5 weeks (all), and 10 weeks (WC group only).
- 5. Savouring experiences will be measured using a Likert scale (SBI: The Savouring Beliefs Inventory) at baseline and 5 weeks (all), and 10 weeks (WC group only).
- 6. Physiological reactivity will be measured using Heart Rate Variability withdrawal (resting HRV at baseline minus HRV during a computerized tracing task) at 5 weeks (all). 1. Anxiety symptoms will be measured using a Likert scale (GAD-7: The Generalized Anxiety Disorder 7-item Scale) at baseline and 5 weeks

- 2. Depressed mood symptoms will be measured using a Likert scale (PHQ-9; The Patient Health Questionnaire 9-item Scale) at baseline and 5 weeks
- 4. Emotion regulation will be measured using a Likert scale (ER-Q: The Emotion Regulation Questionnaire) at baseline and 5 weeks
- 5. Savouring experiences will be measured using a Likert scale (SBI: The Savouring Beliefs Inventory) at baseline and 5 weeks
- 6. Physiological reactivity will be measured using Heart Rate Variability withdrawal (resting HRV at baseline minus HRV during a computerized tracing task) at 5 weeks.
- 7. The acceptability and feasibility of the intervention is measured using three Likert Scales (IAS: Implementation Acceptability Scale, FIM: Feasibility of Intervention Measure, AIM: Acceptability of Intervention Measure) at 5 weeks
- 8. The acceptability of the RCT design is measured using the Acceptability of Randomization and Assessment Procedures Questionnaire at 5 weeks

#### Previous secondary outcome measures:

- 1. Anxiety symptoms will be measured using a Likert scale (GAD-7: The Generalized Anxiety Disorder 7-item Scale) at baseline, 5 weeks (all), and 10 weeks (WC group only)
- 2. Depressed mood symptoms will be measured using a Likert scale (PHQ-9: The Patient Health Questionnaire 9-item Scale) at baseline, 5 weeks (all), and 10 weeks (WC group only)
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- 6. Physiological reactivity will be measured using Heart Rate Variability withdrawal (resting HRV at baseline minus HRV during a computerized tracing task) at 5 weeks (all)

## Overall study start date

15/08/2024

# Completion date

01/06/2026

# Eligibility

## Key inclusion criteria

- 1. A formal diagnosis or self-identified diagnosis of autism (e.g., autism spectrum disorder)
- 2. Between the ages of 16-25 years

# Participant type(s)

Healthy volunteer

# Age group

Mixed

# Lower age limit

16 Years

#### Upper age limit

25 Years

#### Sex

Both

#### Target number of participants

60

#### Key exclusion criteria

- 1. Presence of a disorder that would make it too difficult or unsafe to participate
- 2. Previous participation in therapeutic photography intervention
- 3. Level of support need or intellectual impairment that cannot be supported by a companion

#### Date of first enrolment

15/12/2024

#### Date of final enrolment

01/02/2026

# Locations

#### Countries of recruitment

Canada

## Study participating centre

York University

4700 Keele St.

Toronto

Canada

M3J1P3

# **Sponsor information**

#### Organisation

York University

## Sponsor details

4700 Keele St.

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Canada

M3J 1P3

+1 (0)416 736 5290

gradpsyc@yorku.ca

#### Sponsor type

University/education

#### Website

https://www.yorku.ca/

#### **ROR**

https://ror.org/05fq50484

# Funder(s)

## Funder type

Research council

#### **Funder Name**

Social Sciences and Humanities Research Council

#### Alternative Name(s)

**SSHRC** 

#### **Funding Body Type**

Private sector organisation

#### **Funding Body Subtype**

International organizations

#### Location

Canada

# **Results and Publications**

## Publication and dissemination plan

The researchers aim to present findings from research at peer reviewed scientific conferences and plan to publish in peer-reviewed journals.

# Intention to publish date

01/12/2026

# Individual participant data (IPD) sharing plan

With participant consent, the researchers will provide an anonymized dataset in a publicly available repository: York University's Dataverse data repository: https://borealisdata.ca.

## IPD sharing plan summary

Stored in publicly available repository

# Study outputs

Output typeDetailsDate createdDate addedPeer reviewed?Patient-facing?Participant information sheet08/10/2024NoYes