ISRCTN16350180 https://doi.org/10.1186/ISRCTN16350180

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

Submission date
04/10/2024

Recruitment status
No longer recruiting

Registration date
08/10/2024

Overall study status
Completed

Last Edited
24/02/2026

Condition category
Mental and Behavioural Disorders

[X] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[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)

Contact information

Type(s)
Public, Scientific, Principal investigator

Contact name

Dr Jonathan Weiss

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

Contact details
York University
4700 Keele St.
Toronto
Canada
M3J1P3
+1 (0)4167362100
jonweiss@yorku.ca

Additional identifiers

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
Ethics approval required

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

Primary study design
Interventional

Study design
Single-center interventional assessor-blinded randomized control feasibility trial

Study type(s)
Treatment

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(s)

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)

Key secondary outcome(s)

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)
3. Meaning and purpose will be measured using a Likert scale (PROMIS-MP: The Meaning and Purpose Scale) at baseline, 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, 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, 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)

Completion date
27/03/2026

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

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
16 Years

Upper age limit
25 Years

Sex
All

Total final enrolment
65

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
27/01/2026

Locations

Countries of recruitment
Canada

Study participating centre
York University
4700 Keele St.
Toronto
Canada
M3J1P3

Sponsor information

Organisation
York University

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

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 type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Participant information sheet			08/10/2024	No	Yes
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes
Study website	Study website	11/11/2025	11/11/2025	No	Yes