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Benefits of participating in art museum activities on health and wellbeing

Submission date
29/10/2025

Recruitment status
No longer recruiting

Registration date
30/10/2025

Overall study status
Completed

Last Edited
08/07/2026

Condition category
Mental and Behavioural Disorders

[ ] 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
There is increasing interest in how participation in art events, including museum and exhibition visits, contributes to individual and community wellbeing. Active involvement in creative and cultural activities offers a wide range of benefits, such as promoting wellbeing, quality of life and health. Engagement in the arts is a novel approach to improve the health of diverse adult subjects.
The main aim of this study is to investigate the psychological and physiological patterns evoked during a semi-free exploration of an art museum exhibition as compared to a control neutral experience of daily life, according to advanced techniques evaluating psychological wellbeing, anxiety, neurophysiological changes, emotional arousal, physiological changes in heart rate and blood pressure, salivary stress hormones and biomarkers.

Who can participate?
Healthy adults aged 18-30 years

What does the study involve?
Participants will be randomly allocated either to the experimental experience (which will consist of a 90-minute semi-free visit to the exhibition floors of the FLR Museum) or to the control experience (which will consist of 90 minutes of a "neutral" activity in the non-exposition spaces of the FLR Museum). For an individual participant the study in the unique experimental day will last approximately 3 hours, of which 90 minutes will be devoted to the experience.

What are the possible benefits and risks of participating?
Possible benefits for the participants in the museum experience include positive effects on the state of mind and general well-being. There are no risks associated with study procedures.

Where is the study run from?
Fondazione Luigi Rovati (FLR) Art Museum, Milan, Italy.

When is the study starting and how long it is expected to run for?
April 2024 to December 2025

Who is funding the study?
The Fondazione Luigi Rovati (FLR), the study sponsor, is a not-for-profit organization engaged in several cultural activities and initiatives

Who is the main contact?
Dr Lucio Rovati, lucio.rovati@fondazioneluigirovati.org

Contact information

Type(s)
Public, Scientific, Principal investigator

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Additional identifiers

Protocol serial number
HEALTH IN ARTS-01

Study information

Scientific Title
Clinical evaluation of the benefits of engaging in arts on health and wellbeing of young adults participating in museum activities

Acronym
HIA-01

Study objectives
There is increasing interest in how participation in art events, including museum and exhibition visits, contributes to individual and community wellbeing. The precise influence of art-based interventions on wellbeing and related psychological and physiological parameters is difficult to quantify, mainly because of the lack of randomized controlled clinical studies. The main aim of the present study is therefore to comparatively and quantitatively investigate the psychological and physiological patterns evoked during a semi-free exploration of an art museum exhibition as compared to a control neutral experience of daily life.

The study venue will be the Fondazione Luigi Rovati (FLR) Museum in Milan, Italy.

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 28/03/2024, IEC of the University of Milano-Bicocca (Piazza dell'Ateneo Nuovo, 1, Milano, 20126, Italy; +39 (0)2 6448 6581; comitatoetico@unimib.it), ref: 0149791-28/03/2024 UOR 003406

Primary study design
Interventional

Study design
Single-centre prospective randomized open-label parallel-group controlled study

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Promoting wellbeing, quality of life and health

Interventions
Randomisation by a computer-generated list to:
Experimental: a museum visit, a semi-free visit to the FLR Museum exhibition halls
Placebo comparator: a “neutral” experience in the FLR Museum non-exhibition spaces

Intervention Type
Other

Primary outcome(s)
Change in the mean UCL Museum Wellbeing Measure, specifically the Positive Wellbeing Umbrella Generic, before and after the experience

Key secondary outcome(s)
1. Anxiety state evaluated by the STAI Y-1 before and after the experience
2. Neurophysiological parameters measured by EEG throughout the experience
3. Emotional activation measured by Galvanic Skin Response (GSR) throughout the experience
4. Blood pressure and heart rate measured before and after the experience by the OMRON EVOLV Automatic Upper Arm Blood Pressure Monitor
5. Heart rate variability (HRV) measured throughout the experience by the Shimmer3 GSR+ wrist device capturing an Optical Pulse/PPG (Photoplethysmogram) signal
6. Salivary levels of neuroendocrine stress hormones and biomarkers of catecholamines release measured before and after the experience. Saliva was collected using a SALIVETTE® device (SARSTEDT, Numbrecht, Netherlands) and analysed by commercially available kits.

Completion date
22/12/2025

Eligibility

Key inclusion criteria
1. Age 18-30 years, all genders and self-identified as healthy
2. Fluent in Italian

3. Able to understand the study aim and to adhere to the study protocol procedures, and having signed an Informed Consent Form prior to the initiation of the study

Participant type(s)
Healthy volunteer

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 Years

Upper age limit
30 Years

Sex
All

Total final enrolment
0

Key exclusion criteria
Have already visited the FLR Museum venue

Date of first enrolment
30/04/2024

Date of final enrolment
22/12/2025

Locations

Countries of recruitment
Italy

Study participating centre
Fondazione Luigi Rovati (FLR) Art Museum
Corso Venezia 52
Milan
Italy
20121

Sponsor information

Organisation
Fondazione Luigi Rovati (FLR)

Funder(s)

Funder type
Charity

Funder Name
Fondazione Luigi Rovati (FLR)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Data sharing statement to be made available at a later date