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Online training to improve communicative skills in autistic adolescents

Submission date
29/07/2025

Recruitment status
No longer recruiting

Registration date
03/10/2025

Overall study status
Completed

Last Edited
07/05/2026

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
Autism spectrum disorder (ASD) is a condition that affects how people communicate and interact with others. Many autistic teenagers find it difficult to use language and other ways of expressing themselves, like gestures or facial expressions, in social situations. These skills are known as pragmatic communication. Although these skills are important, there are very few training programs that help autistic teenagers improve them. Even fewer are available online, which would make them easier to access. This study aims to test an online version of a training program called Cognitive Pragmatic Treatment, or @CPT, to see if it helps autistic teenagers improve their communication skills and whether it is practical to use.

Who can participate?
Teenagers aged 12 to 18 who have been diagnosed with autism by a qualified clinician, can speak Italian as their first language, and have basic language skills can take part in the study.

What does the study involve?
Participants are divided into two groups. One group receives the @CPT training online in small groups, with 15 weekly sessions lasting two hours each. The other group continues with their usual face-to-face therapy. Researchers assess participants before the training, after it ends, and again three months later to see if there are any changes in their communication skills.

What are the possible benefits and risks of participating?
Taking part in the study may help improve communication skills in social situations. There are no known major risks, but as with any training program, some participants might find certain tasks challenging or tiring.

Where is the study run from?
University of Turin (Italy)

When is the study starting and how long is it expected to run for?
January 2022 to May 2026.

Who is funding the study?
The study is funded by Fondazione CRT (Italy)

Who is the main contact?
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Study information

Scientific Title
Effectiveness of Cognitive Pragmatic Treatment in telehealth (@CPT) compared to Treatment-as-Usual (TAU) in improving pragmatic communication skills in autistic adolescents

Acronym
@CPT

Study objectives
1. To present the adapted version of the Cognitive Pragmatic Treatment for adolescents (A-CPT) for telepractice use (@CPT)
2. To evaluate the effectiveness of @CPT and the stability of pragmatic improvements at three-month follow-up
3. To rule out spontaneous improvement by comparing the @CPT group with a control group receiving treatment as usual (TAU)
4. To assess the specificity of @CPT by evaluating cognitive and ToM skills, expecting no changes in these domains

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 24/01/2023, Bioethics Committee of the University of Turin (Via Bogino, 9, Turin, 10123, Italy; +39 670 4394; staff.cba@unito.it), ref: 0059806

Primary study design
Interventional

Study design
Interventional randomized parallel trial

Study type(s)
Efficacy, Treatment

Health condition(s) or problem(s) studied
Communicative-pragmatic difficulties in adolescents on the Autism Spectrum Disorder (ASD).

Interventions
Interventional study with two groups: an experimental group received the Cognitive Pragmatic Treatment adapted for telepractice (@CPT), delivered in 15 group sessions (2 hours each, once a week) via videoconferencing platforms over approximately three months, while a control group received Treatment-as-Usual (TAU) in face-to-face clinical rehabilitation centers. Assessments were conducted at pre-, post-, and three-month follow-up.

Intervention Type
Behavioural

Primary outcome(s)
Pragmatic-communication ability is measured using the equivalent forms of the Assessment Battery for Communication (ABaCo) at baseline (pre-training), immediately after the intervention (post-training), and at three-month follow-up.

Key secondary outcome(s)
A range of cognitive abilities (i.e., planning, cognitive flexibility, memory, attention, expressive vocabulary and language comprehension) is assessed at baseline and post-treatment using subtests from the BVN 12–18 battery (Gugliotta et al., 2009) together with Theory of Mind (ToM) tasks

Completion date
01/05/2026

Eligibility

Key inclusion criteria
1. Diagnosis of verbally fluent ASD certified by qualified clinicians using the DSM-5 guidelines
2. Age between 12-18 years
3. Native Italian speakers
4. Basic language abilities assessed by the language comprehension subtask of the BVN 12-18, namely the Token Test

Participant type(s)
Patient, Population

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
12 Years

Upper age limit
18 Years

Sex

All

Total final enrolment
0

Key exclusion criteria
1. Previous history of brain injury or neurological disorder
2. Concurrent participation in Applied Behavior Analysis (ABA) or other communicative rehabilitation programs

Date of first enrolment
01/02/2023

Date of final enrolment
01/02/2025

Locations

Countries of recruitment
Italy

Study participating centre
Centro di Riabilitazione Ferrero
Via Edmondo de Amicis, 16, Alba CN
Alba
Italy
12051

Study participating centre
Centro Autismo e Sindrome di Asperger ASL CN1
Via San Rocchetto 99.
Mondovì
Italy
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Sponsor information

Organisation
University of Turin

ROR
https://ror.org/048tbm396

Funder(s)

Funder type
Charity

Funder Name
Fondazione CRT

Alternative Name(s)
CRT Foundation

Funding Body Type
Private sector organisation

Funding Body Subtype
Trusts, charities, foundations (both public and private)

Location
Italy

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated during and/or analysed during the current study are not expected to be made available due to privacy or ethical restrictions; however, data will be available from the corresponding author (ilaria.gabbatore@unito.it) on reasonable request.

IPD sharing plan summary
Available on request