



Università di Catania
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XIX CONGRESSO NAZIONALE
DELLA SOCIETÀ ITALIANA
DI NEUROPSICOFARMACOLOGIA
Il farmaco e le neuroscienze

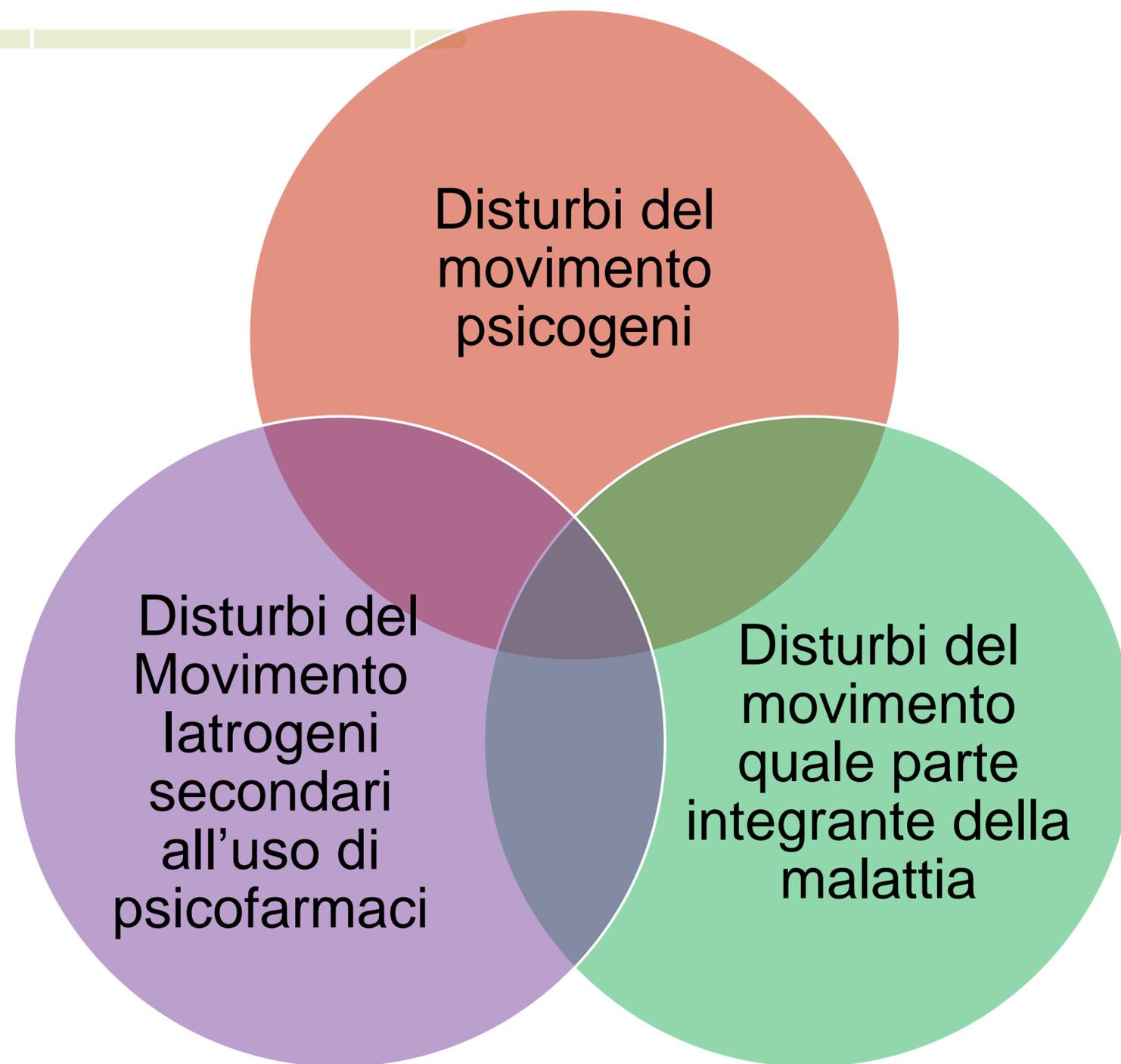
Acireale (CT), 11-14 ottobre 2016



I Disturbi del Movimento

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Acireale, 12/10/2016

Disturbi del movimento



The Role of Sensorimotor Difficulties in Autism Spectrum Conditions

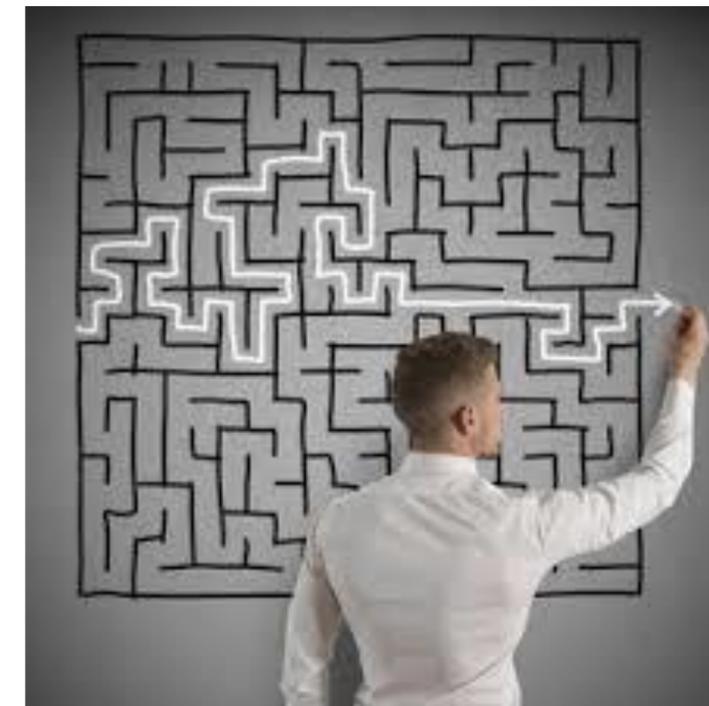
In addition to difficulties in social communication, current diagnostic criteria for autism spectrum conditions (ASC) also incorporate sensorimotor difficulties, repetitive motor movements, and atypical reactivity to sensory input:

Difficulties coordinating sensory input into planning and executing movement effectively in ASC.

Associations between sensory reactivity and motor coordination with core ASC symptoms, suggesting these areas each strongly influence the development of social and communication skills.

Sensorimotor difficulties in ASC could account for reduced social attention early in development, with a cascading effect on later social, communicative and emotional development.

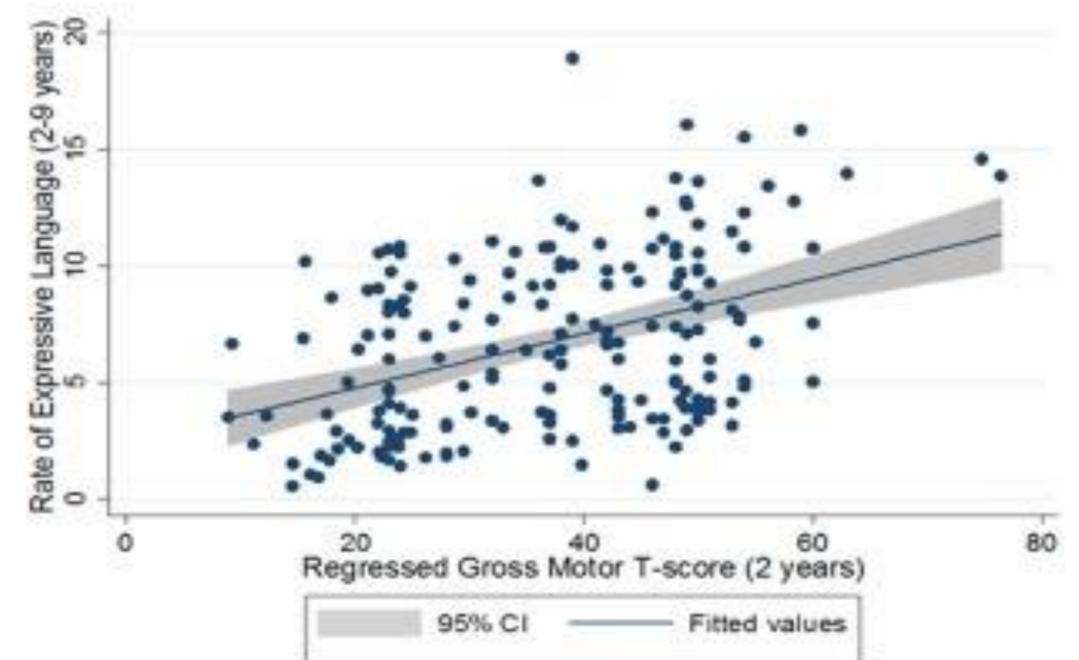
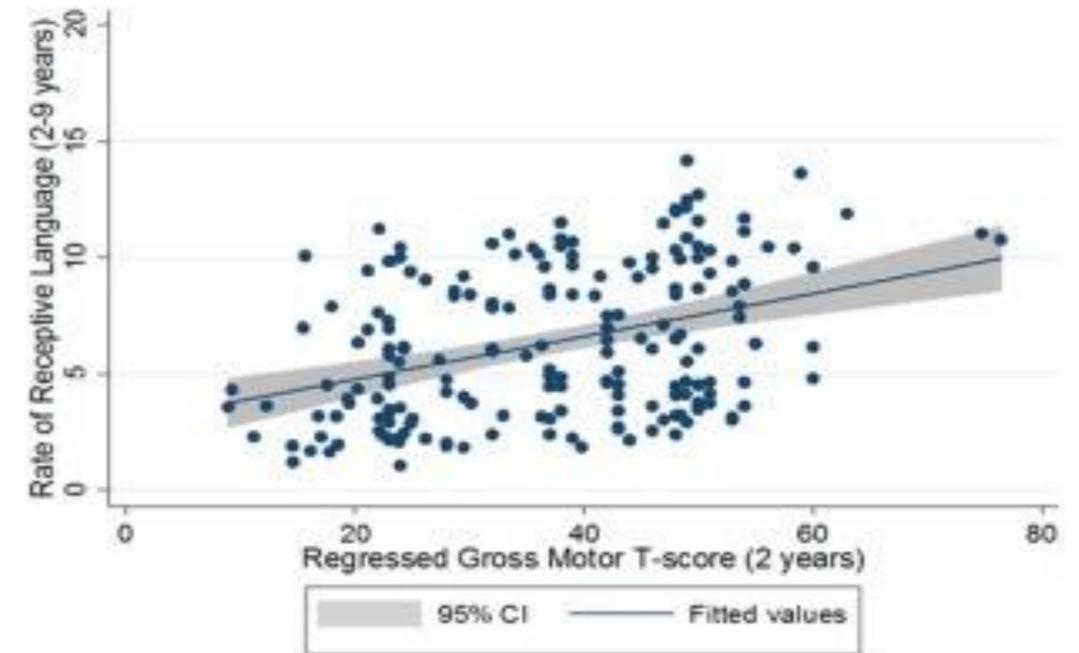
Impairment in the pathway involving motor activity triggered by sensory stimuli



Early gross motor skills predict the subsequent development of language in children with ASD

Motor milestones such as the onset of walking are important developmental markers, not only for later motor skills but also for more widespread social-cognitive development.

Earlier walkers would show faster rates of language development, and that walking would remain a significant predictor even after controlling for general developmental level and overall GM ability.



Disturbi del movimento

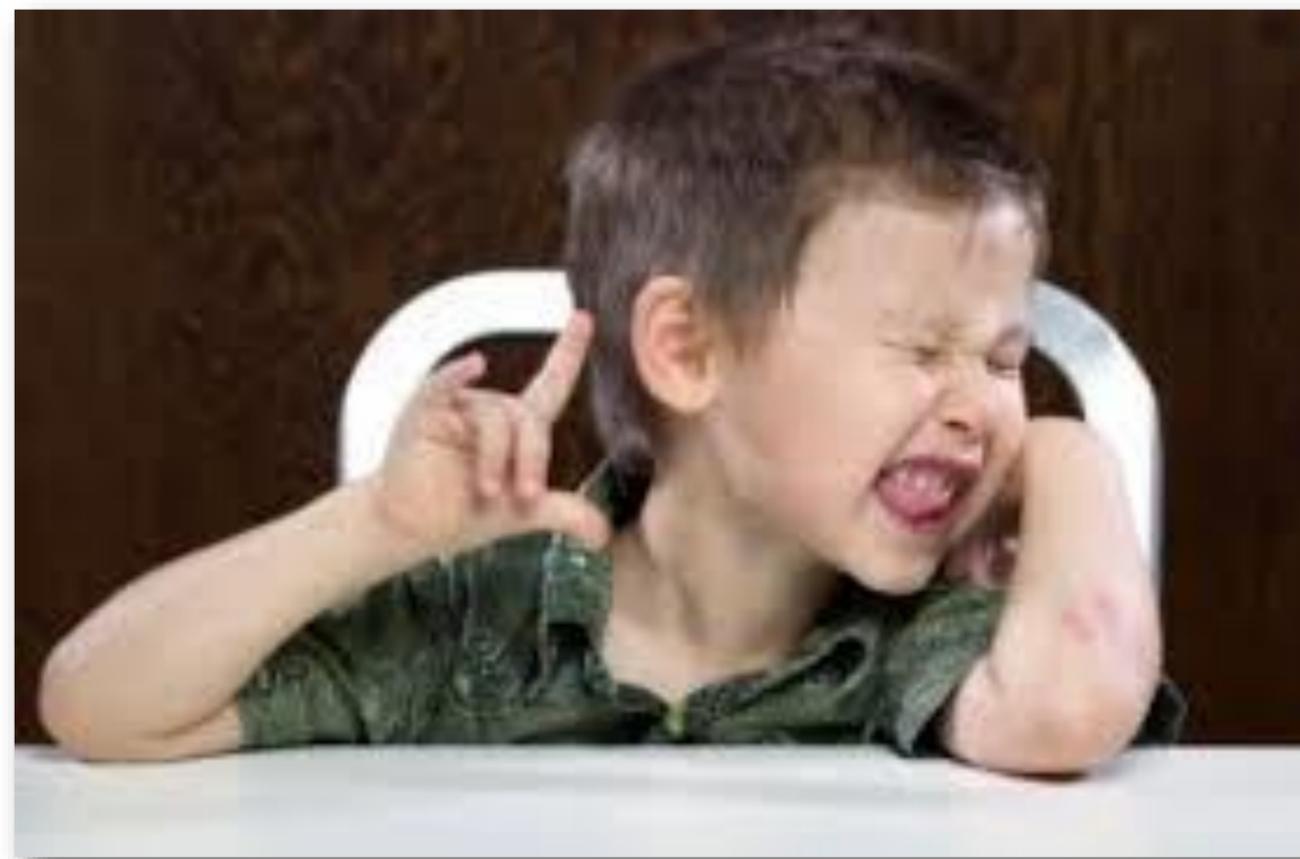
Disturbi del movimento si riscontrano nel 50% dei bambini con sindrome di Asperger e il 67% nei bambini con ASD.

Il 79% degli individui nello spettro ha difficoltà motorie e almeno il 10% ha alterazioni borderline



Disturbi del movimento nell'autismo

- ✓ Tic's
- ✓ Sindrome di Tourette
- ✓ Catatonia
- ✓ Discinesia
- ✓ Acatisia
- ✓ Bradicinesia
- ✓ Anormalità dell'andatura e della postura



Sia primari che secondari

Pharmacotherapy for the Core Symptoms in Autistic Disorder: Current Status of the Research

The core symptoms of autism include impairments in social interaction and communication, as well as the presence of restricted and repetitive behaviors.

There are no known efficacious treatments for the core social symptoms



Psychiatric comorbidities in Asperger syndrome and high functioning autism: diagnostic challenges

Recognizing psychiatric comorbidities in individuals with AS/HFA can be challenging for clinicians. Considering that individuals with AS/HFA may show an impairment in processing and describing their own feelings and emotions, the clinical information is often obtained by interviewing family members rather than the AS participants themselves or detected from a direct observation in their social environment.



Aggression in autism spectrum disorder: presentation and treatment options

Antipsychotic/selected controlled trials	Author	Study design	AEs
Haloperidol	Cambell et al ¹⁰	12-week, RPCT	Sedation, acute dystonic reaction in two subjects
	Anderson et al ²⁴	14-week, RPCT	Sedation, increased irritability
Risperidone	McDougle et al ¹⁰	12-week, RPCT	Abnormal gait (n=1), sedation
	McCracken et al ²⁵	8-week, RPCT	Weight gain, increased appetite, fatigue
	Shea et al ²¹	8-week, RPCT	Somnolence, weight gain
	RUPP ¹²	Part 1: 16-week open-label extension of EROS trial Part 2: 8-week DB placebo-substitution study	Weight gain Increased aggression in placebo group
	Aman et al ²³	Naturalistic 21-month follow-up	Weight gain, excessive appetite, enuresis
Aripiprazole	Marcus et al ²⁶	8-week, RPCT (fixed dose)	Weight gain, sedation, EPS
	Chen et al ²⁷	8-week, RPCT (flexible dose)	Weight gain
	Marcus et al ²⁸	32-week open-label extension of EROS trial	Weight gain, increased appetite, vomiting, insomnia
Olanzapine	Hollander et al ²⁹	8-week RPCT	Weight gain, sedation
Lurasidone	Loebel et al ³⁰	4-week RPCT (fixed dose)	Vomiting, somnolence
Antiepileptic medications/selected controlled trials			
Valproic acid	Hallings et al ³¹	8-week RPCT	Skin rash, weight gain, elevated ammonia
Other medications/selected controlled trials			
N-acetylcysteine (NAC)	Handan et al ³²	12-week RPCT	Minimal gastrointestinal symptoms
Naltrexone	Cambell et al ¹¹	4-week RPCT	Well tolerated

Aloperidolo
Risperidone
Aripiprazolo
Olanzapina
Lurasidone



Trattamenti di lunga durata instaurati molto precocemente nella vita del soggetto

- Studi preclinici suggeriscono la presenza di cambiamenti di notevole rilevanza a livello della corteccia prefrontale sul sistema dopaminergico nel corso dell'adolescenza.
- Tali mutamenti includono una riduzione della densità delle cellule dopaminergiche, dei picchi basali dei livelli di dopamina, del turnover della dopamina e della concentrazione dei recettori D1 e D2 nello striato.



Disturbi del movimento Indotti da Farmaci: Fattori di Rischio

Sesso femminile

Etnia (afroamericani)

Presenza (precoce) di sindromi extrapiramidali

Dose e durata dell'esposizione agli antipsicotici

(in particolare di prima generazione)

Alto numero di "vacanze" terapeutiche

Farmaci anticolinergici, litio

Disabilità Intellettiva

Deficit neurologici e malattie cerebrali organiche

Sintomi negativi e disturbi del pensiero

Sintomi cognitivi

Abuso di alcool e farmaci

Fumo di sigaretta

Diabete mellito

Menopausa

Familiarità per schizofrenia e/o disturbi affettivi

Familiarità positiva per disturbi del movimento
indotti da farmaci



Movement Disorders in Adults With Intellectual Disability and Behavioral Problems Associated With Use of Antipsychotics.

- Almost half (44.0%) of 134 in-patient adults with ID and behavioral problems had any movement disorder.
- Parkinsonism, dyskinesia, akathisia, and dystonia were present in, respectively, 36.6%, 11.2%, 9.0%, and 0.7% of patients with ID.
- It appeared that current use of any antipsychotic drug (odds ratio, 3.0; 95% confidence interval, 1.0-8.4) and a dose in target range (odds ratio, 5.5; 95% confidence interval, 1.5-20.4) were significantly associated with the risk of having movement disorders.



- The prevalence of movement disorders in people with ID and behavioral problems is high, especially in ID patients using antipsychotics.

Adverse events and the relation with quality of life in adults with intellectual disability and challenging behaviour using psychotropic drugs.

- Virtually all of 103 adults with ID and challenging behaviour had at least one adverse event (84.4%) and almost half had ≥ 3 adverse events (45.6%) across different subclasses.
- Using psychotropic drugs increased the prevalence of adverse events significantly. Respectively 13% of the patients without psychotropic drugs and 61% of the patients with ≥ 2 psychotropic drugs had ≥ 3 adverse events.
- Having adverse events had a significantly negative influence on the quality of life.



High rates of parkinsonism in adults with autism

- High frequency of parkinsonism among ASD individuals older than 39 years (20%). If high rates of parkinsonism and potentially Parkinson's disease are confirmed in subsequent studies of ASD, this observation has important implications for understanding the neurobiology of autism and treatment of manifestations in older adults.
- Given the prevalence of autism in school-age children, the recognition of its life-long natural history, and the recognition of the aging of western societies, these findings also support the importance of further systematic study of other aspects of older adults with autism

General population aged 65–70
has been estimated at 0.9 %

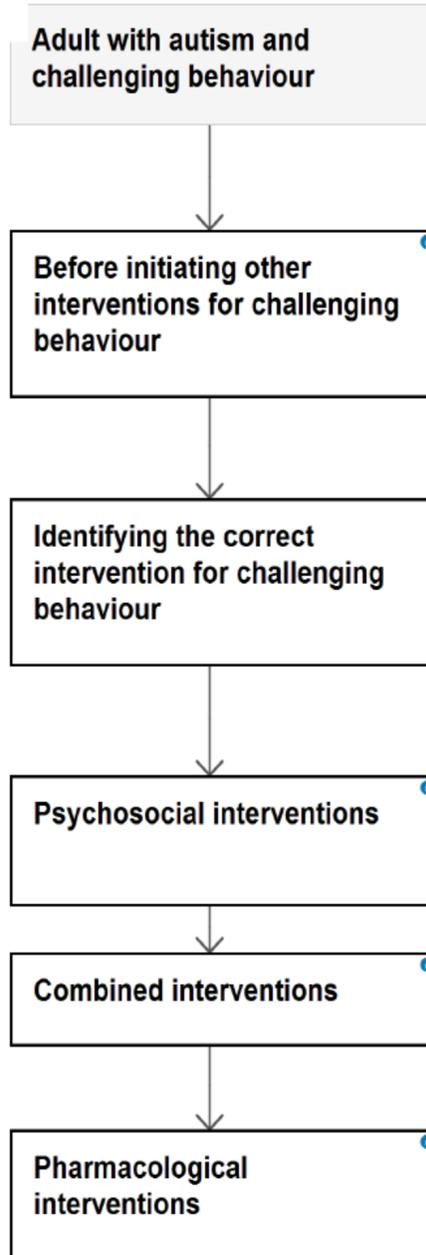
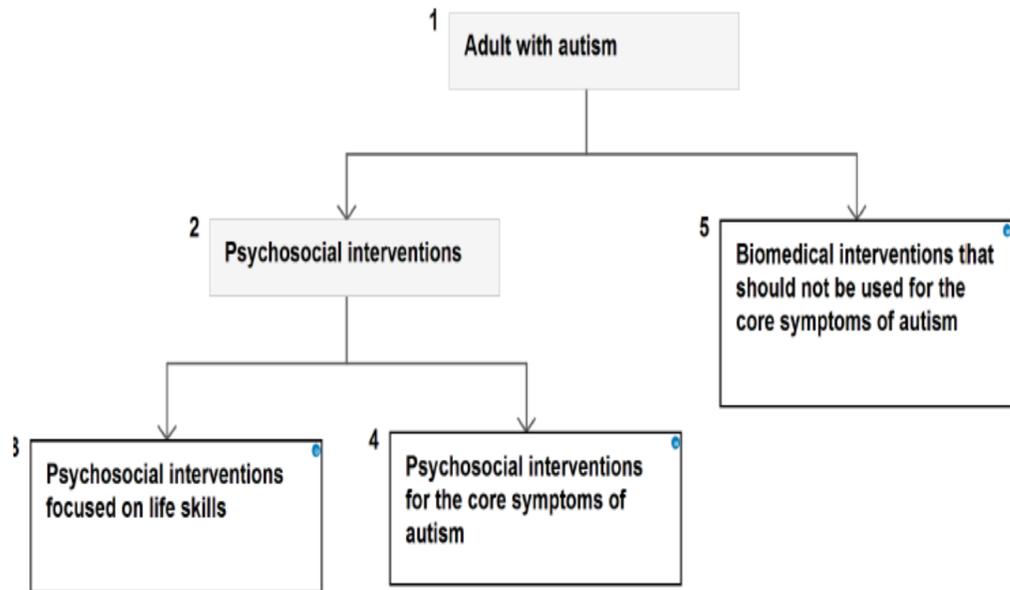


Un sentiero...

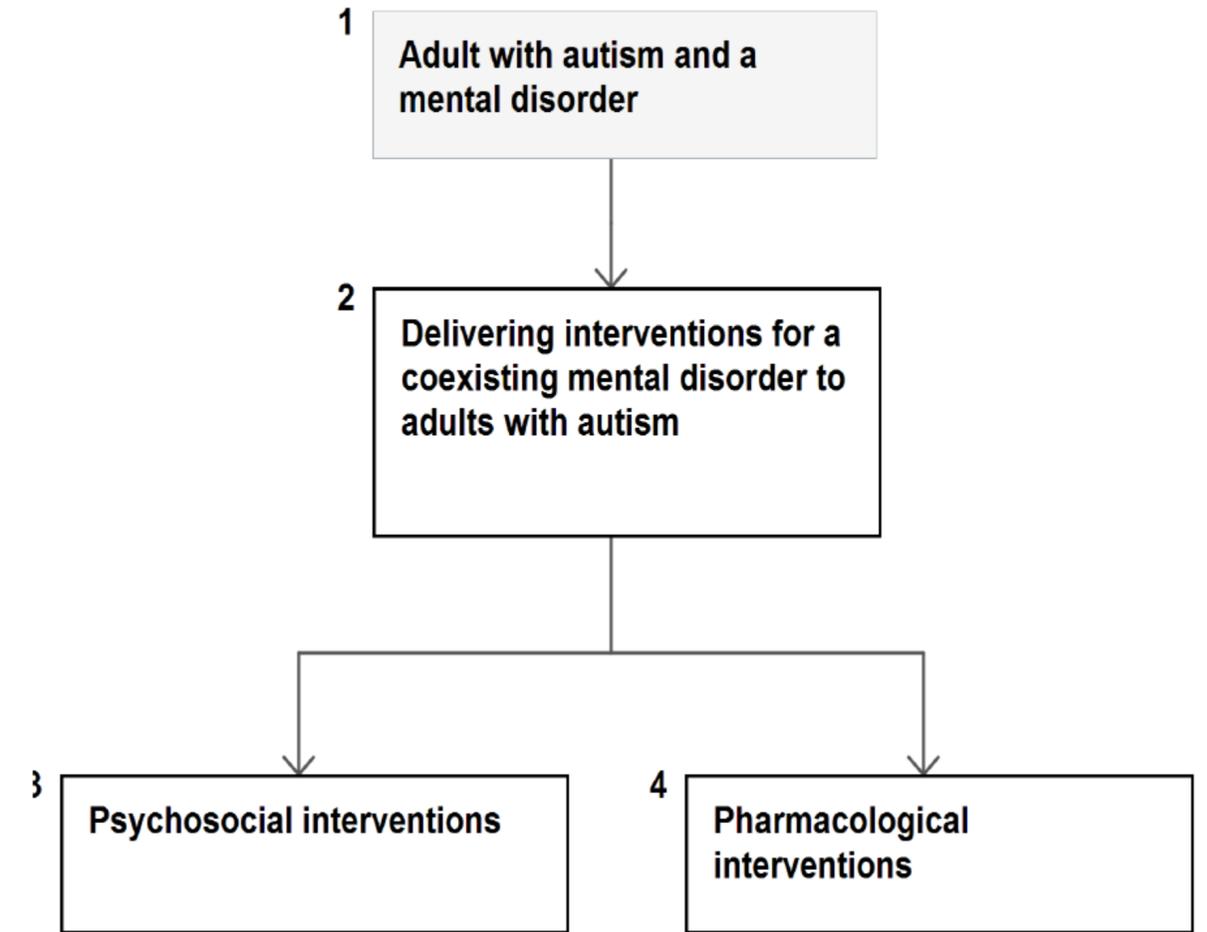
Interventions for challenging behaviour in adults with autism

Interventions for autism in adults

NICE Pathways



Interventions for coexisting mental disorders in adults with autism



Una sintesi?

