

Il razionale degli interventi di rimedio cognitivo: basi teoriche e prove di efficacia

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Riabilitazione psichiatrica ed Interventi EBM

Evidence Based Medicine (EBM)

l'uso coscienzioso, esplicito e giudizioso delle attuali migliori evidenze nell'assumere decisioni nell'assistenza dei singoli pazienti. Comporta il combinare le evidenze sperimentali migliori disponibili con l'esperienza clinica e i valori dei pazienti.

(D. Sackett, 1996)



PRATICHE EVIDENCE-BASED

- ASSERTIVE COMMUNITY TREATMENT (ACT)
- PSICOEDUCAZIONE FAMILIARE
- ADDESTRAMENTO ADDESTRAMENTO ALLE ABILITA' ABILITA' SOCIALI SOCIALI (SST)
- TERAPIA COGNITIVO-COMPORTAMENTALE PER I SINTOMI PSICOTICI PERSISTENTI (CBTp)
- INSERIMENTI LAVORATIVI SUPPORTATI
- **RIMEDIO COGNITIVO**

(Mueser K.T et al, 2013)

*PERCHE' IL
RIMEDIO
COGNITIVO*





Disturbi cognitivi

Caratteristica centrale della malattia

Presenti già in fase premorbosa


Fattore predittivo negativo del funzionamento sociale e lavorativo

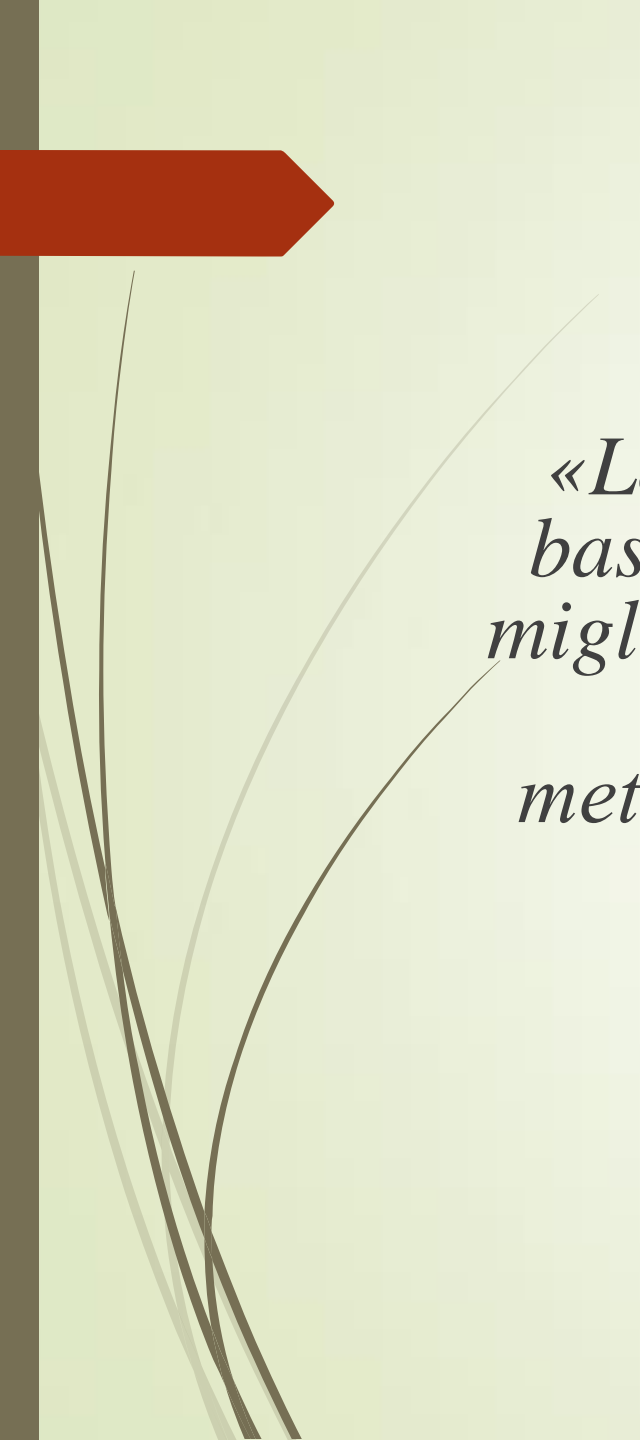


RIMEDIO



Correggere un'alterazione di base

- 
- Sviluppare nuove capacità
 - Risanare processi alterati
 - Facilitare processo di ripresa



«Le tecniche di rimedio cognitivo sono interventi basati su un training comportamentale che mira a migliorare i processi cognitivi (attenzione, memoria, funzioni esecutive, cognizione sociale e metacognizione) con l'obiettivo della persistenza e della generalizzazione»

(Cognitive Remediation Experts Workshop, 2010)



Domini cognitivi prevalentemente colpiti

- Attenzione e la vigilanza
- Apprendimento verbale e visivo
- Memoria di lavoro (working memory)
- Velocità di processamento delle informazioni
- Ragionamento e problem solving
- Flessibilità di pensiero
- Cognizione sociale

(O'Connor R., 2000)



A central orange circle labeled 'Attenzione' is surrounded by four smaller circles, each representing a different type of attention. The circles are: 'Vigilanza' (top, light brown), 'Attenzione selettiva' (right, light green), 'Attenzione sostenuta' (bottom, light green), and 'Attenzione condivisa' (left, light blue). Each circle contains a brief description of the type of attention. The entire diagram is enclosed in a red rectangular border. On the left side of the slide, there is a red arrow pointing right and several thin, curved black lines.

Attenzione

Vigilanza

Identificazione di
stimoli rilevanti
nell'ambiente

Attenzione selettiva

Individuazione di
uno stimolo
ignorandone altri

Attenzione sostenuta

Sostenere
un'attenzione
prolungata nel
tempo su uno
stimolo

Attenzione condivisa

Suddivisione
dell'attenzione tra
diversi messaggi
simultanei



Dimensions of Attention Impairment and Negative Symptoms in Schizophrenia: A Multidimensional Approach Using the Conners Continuous Performance Test in a Spanish Population

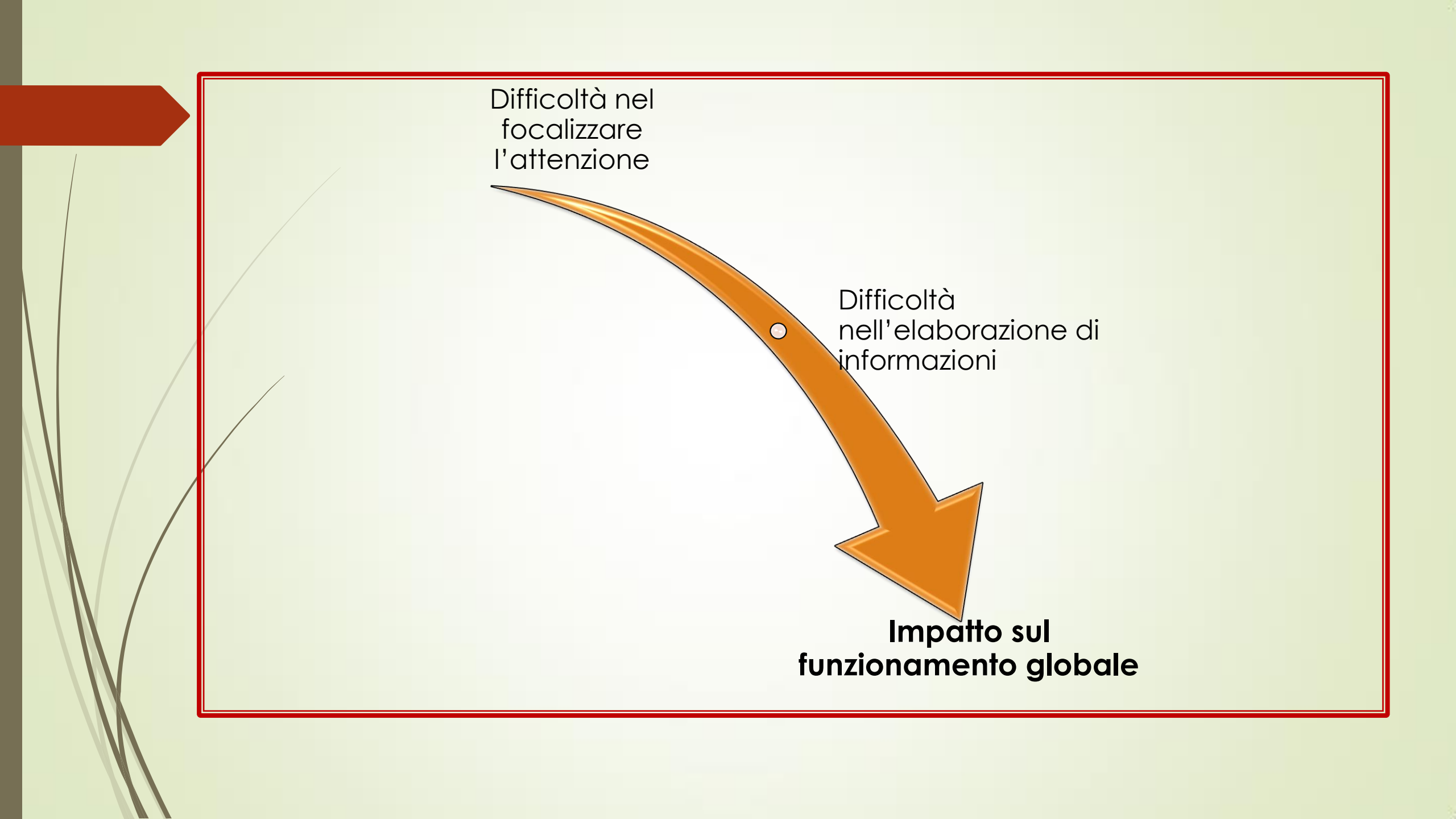
Juan Carlos Sanz, PhD,† Vanessa Gómez, PhD,‡
Martín L. Vargas, MD,§ and Juan José Marín, PhD||*

Objectives: The aim of this study was to assess the specific features of attention impairment in patients with schizophrenia and the correlation between those features and the patients' clinical status.

Methods: We administered the Conners Continuous Performance Test (CPT-II), with cognitive and clinical scales, to 40 Spanish inpatients with schizophrenia and 40 healthy controls, and used a cross-sectional design to compare the groups' performances. We identified correlations between the measures and used multiple regression analyses to develop models showing how attention impairment contributed to clinical status.

Results: The patients with schizophrenia showed significantly poorer performance than controls in 5 CPT-II measures that were related to focused attention. We also found that CPT-II measures primarily linked to focused attention had a significant association with negative symptoms. These CPT-II measures predicted 37% of the variability in negative symptoms in the regression model. We observed a more modest relationship among CPT-II measures of disorganized thought symptoms, global functioning, and general cognitive performance.

Conclusions: Attention impairment in schizophrenia primarily involves difficulty in focusing attention, mainly related to negative symptoms. By contrast, sustained attention and vigilance seem to be affected only as a secondary consequence of the impairment to focusing attention.



Difficoltà nel
focalizzare
l'attenzione

Difficoltà
nell'elaborazione di
informazioni

**Impatto sul
funzionamento globale**



Memoria a
lungo
termine

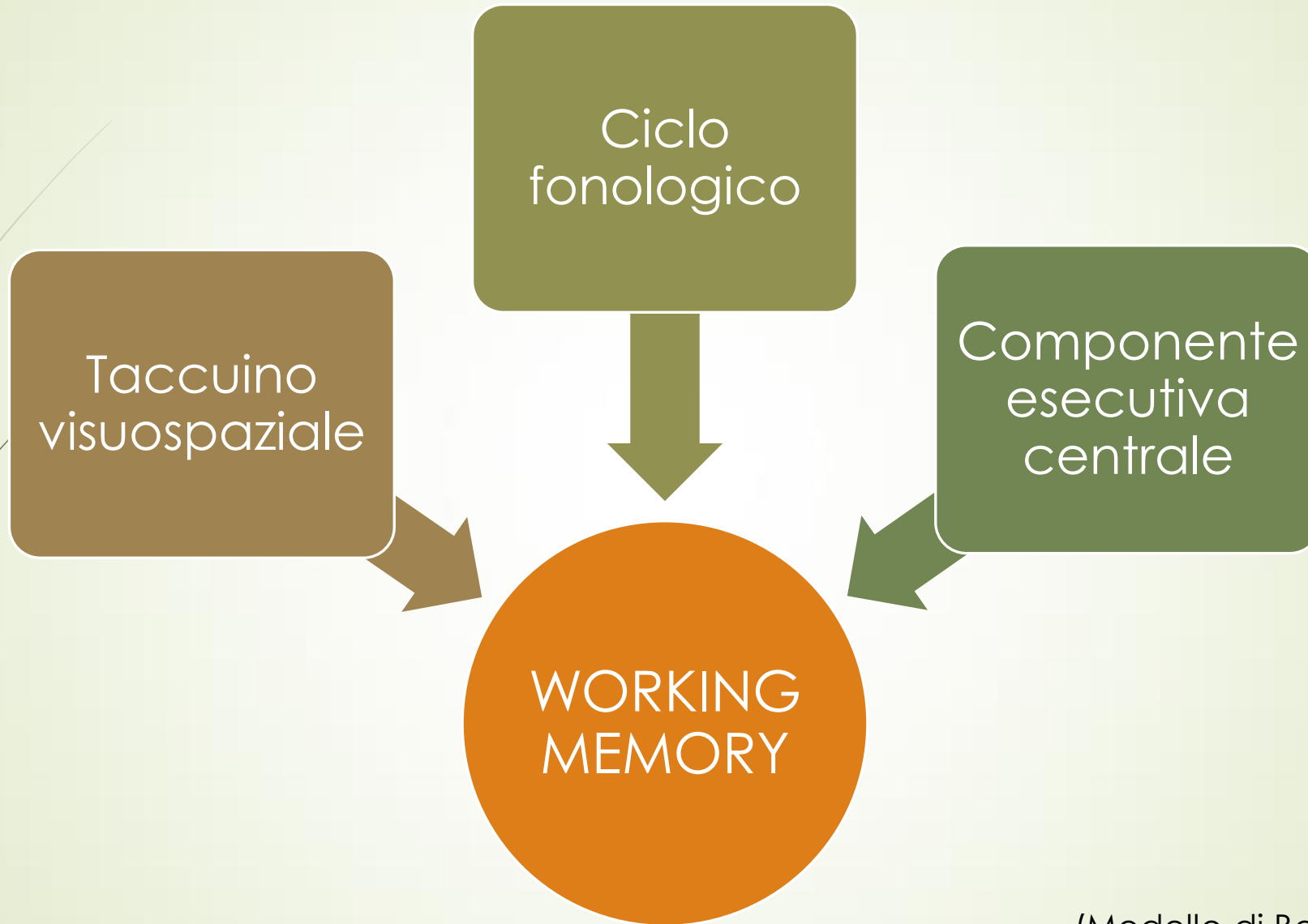
The diagram illustrates the components of memory. On the left, two smaller circles are stacked vertically. The top circle is olive green and labeled 'Memoria a lungo termine'. The bottom circle is a darker green and labeled 'Memoria a breve termine' and 'Working memory'. A green plus sign is positioned between these two circles. To the right of the plus sign is a green arrow pointing towards a large teal circle on the right. This large circle is labeled 'MEMORIA' in white capital letters. The entire diagram is enclosed in a thin red rectangular border.



Memoria a
breve
termine
**Working
memory**



MEMORIA



(Modello di Baddeley, 1986)

Working memory in schizophrenia: a meta-analysis

N. F. Forbes, L. A. Carrick, A. M. McIntosh and S. M. Lawrie*

University of Edinburgh, Department of Psychiatry, Royal Edinburgh Hospital, Edinburgh, UK

Background. Memory impairment is being recognized increasingly as an important feature of the neuropsychology of schizophrenia. Dysfunction of working memory, a system for the short-term storage and manipulation of information, may relate to a number of core symptoms of schizophrenia. Many studies have examined working memory function in schizophrenia but a clear understanding of the nature and extent of any deficit has been elusive.

Method. A systematic review and meta-analysis of studies comparing working memory function in subjects with schizophrenia and healthy controls was performed. Following a comprehensive literature search, meta-analyses were conducted on 36 measures of phonological, visuospatial and central executive working memory functioning, encompassing 441 separate results from 187 different studies.

Results. Statistically significant effect sizes were found for all working memory measures, indicating deficits in schizophrenia groups. Some of these were robust findings in the absence of evidence of significant heterogeneity or publication bias. Meta-regression analyses showed that the working memory deficit was not simply explained by discrepancies in current IQ between schizophrenia and control groups.

Conclusions. Large deficits in working memory were demonstrated in schizophrenia groups across all three working memory domains. There were, however, no clear differences across subdomains or between particular working memory tasks. There was substantial heterogeneity across results that could only be partly explained.

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Keywords: Meta-analysis, schizophrenia, systematic review, working memory.

Review

> Behav Brain Res. 2011 Dec 1;225(2):610-22. doi: 10.1016/j.bbr.2011.08.016.

Epub 2011 Aug 22.

Genetic influence on the working memory circuitry: behavior, structure, function and extensions to illness

Katherine H Karlsgodt ¹, Peter Bachman, Anderson M Winkler, Carrie E Bearden, David C Glahn

Affiliations + expand

«Nel dominio spaziale i pz affetti da schizofrenia presentano una maggiore difficoltà nel riconoscimento di un luogo già dopo un brevissimo intervallo di tempo e sono più facilmente distraibili»



Funzioni esecutive



Pianificazione ed elaborazione di strategie per risolvere dei problemi

Iniziativa ed intenzionalità dei comportamenti

Capacità di astrazione

Attribuzione di significato agli stimoli esterni in relazione all'esperienza

Abilità di discriminazione dei vari stimoli

Flessibilità cognitiva



NIH Public Access

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Int J Dev Neurosci. 2011 May ; 29(3): 237–243. doi:10.1016/j.ijdevneu.2010.11.003.

The Developmental Course of Executive Functioning in Schizophrenia

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Abstract

Executive dysfunction is a core feature of schizophrenia, but our understanding of the developmental course of this neuropsychological domain in the disease remains largely unexplored. A review of the research evidence points to a number of persistent debates about the course of executive functioning and its relation to illness course. A better understanding of the neurocognitive trajectories of executive functioning in schizophrenia could help identify the risk and modifying that influence the onset, severity and course of disease, and the chance to re-direct or re-shape that course and improve outcomes. To accomplish this requires assessment of the diverse and integrated nature of those abilities, and the changes over time in those abilities requires multiple instruments and techniques in order to improve the research methods and understanding of an important area of impairment in schizophrenia.





Elaborazione
emozioni

The diagram features a central green oval with the text 'Elaborazione emozioni'. To its right, a red arrow points to a vertical stack of four rounded rectangular boxes. The boxes are colored in a gradient from light orange at the top to dark red at the bottom. The first three boxes contain the text 'Identificazione delle emozioni', 'Facilitazione delle emozioni', and 'Comprensione delle emozioni' respectively. The fourth box at the bottom contains 'Gestione delle emozioni'. On the far left, there is a red arrow pointing right and several thin, curved black lines.

Identificazione delle
emozioni


Facilitazione delle
emozioni

Comprensione delle
emozioni

Gestione delle emozioni



Percezione sociale



Abilità di leggere specifici segnali sociali che possono essere utilizzati per formulare giudizi circa il comportamento, le attitudini e le emozioni degli altri




Teoria della mente



Capacità di comprendere ed
interpretare gli stati mentali altrui




Stile attribuzionale



È il modo in cui l'individuo si spiega le cause del
Successo o dell'insuccesso degli eventi sociali.

- Esterne personali
- Esterne situazionali
- interne



The relationship between neurocognition and social cognition with functional outcomes in schizophrenia: a meta-analysis

Anne-Kathrin J Fett ¹, Wolfgang Viechtbauer, Maria-de-Gracia Dominguez, David L Penn, Jim van Os, Lydia Krabbendam

Affiliations + expand

PMID: 20620163 DOI: [10.1016/j.neubiorev.2010.07.001](https://doi.org/10.1016/j.neubiorev.2010.07.001)

Abstract

The current systematic review and meta-analysis provides an extended and comprehensive overview of the associations between neurocognitive and social cognitive functioning and different types of functional outcome. Literature searches were conducted in MEDLINE and PsycINFO and reference lists from identified articles to retrieve relevant studies on cross-sectional associations between neurocognition, social cognition and functional outcome in individuals with non-affective psychosis. Of 285 studies identified, 52 studies comprising 2692 subjects met all inclusion criteria. Pearson correlations between cognition and outcome, demographic data, sample sizes and potential moderator variables were extracted. Forty-eight independent meta-analyses, on associations between 12 a priori identified neurocognitive and social cognitive domains and 4 domains of functional outcome yielded a number of 25 significant mean correlations. Overall, social cognition was more strongly associated with community functioning than neurocognition, with the strongest associations being between theory of mind and functional outcomes. However, as three-quarters of variance in outcome were left unexplained, cognitive remediation approaches need to be combined with therapies targeting other factors impacting on outcome.



METACOGNIZIONE

Capacità di avere consapevolezza delle proprie abilità cognitive e degli stati di conoscenza

Elementi essenziali della metacognizione per fornire appropriate performance sono:

- ✓ Monitoraggio soggettivo del funzionamento cognitivo
- ✓ Relativo controllo



Available online at www.sciencedirect.com



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CLINICAL
PSYCHOLOGY
REVIEW

Suspicious minds: The psychology of persecutory delusions

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Department of Psychology, PO Box 77, Institute of Psychiatry, King's College London, Denmark Hill, London, SE5 8AF, UK

Received 6 July 2006; accepted 10 October 2006



Research Article

Metacognition and Social Cognition in Schizophrenia: Stability and Relationship to Concurrent and Prospective Symptom Assessments

Jay A. Hamm, Selwyn B. Renard, Rebecca L. Fogley, Bethany L. Leonhardt, Giancarlo Dimaggio, Kelly D. Buck, Paul H. Lysaker ✉

First published: 08 August 2012 | <https://doi.org/10.1002/jclp.21906> | Citations: 82

British Journal of Clinical Psychology (2005), 44, 193–207
© 2005 The British Psychological Society



www.bpsjournals.co.uk

Jumping to conclusions in delusional and non-delusional schizophrenic patients

Steffen Moritz^{1*} and Todd S. Woodward^{2,3}

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³Department of Medicine and Research, Riverview Hospital, Canada

Schizophrenia Bulletin vol. 34 no. 3 pp. 408–411, 2008

doi:10.1093/schbul/sbn014

Advance Access publication on March 28, 2008

Social Cognition in Schizophrenia: An Overview

David L. Penn^{1,2}, Lawrence J. Sanna², and David L. Roberts²

²University of North Carolina-Chapel Hill, Chapel Hill, NC

friendly or wh
relationship.

Researchers
experiences a
tions.⁶ These



Cognitive remediation in the prodromal phase of schizophrenia or in subjects at-risk for psychosis

Gli studi disponibili supportano l'efficacia del rimedio cognitivo (RC) non solo in persone con schizofrenia cronica, ma anche nelle prime fasi della malattia.

(Barlati et al., 2016, Evidence-based Psychiatric Care)

Reviews and Overviews

A Meta-Analysis of Cognitive Remediation in Schizophrenia

Susan R. McGurk, Ph.D.

Elizabeth W. Twamley, Ph.D.

David I. Sitzer, Ph.D.

Gregory J. McHugo, Ph.D.

Kim T. Mueser, Ph.D.

Objective: This study evaluated the effects of cognitive remediation for improving cognitive performance, symptoms, and psychosocial functioning in schizophrenia.

Method: A meta-analysis was conducted of 26 randomized, controlled trials of cognitive remediation in schizophrenia including 1,151 patients.

Results: Cognitive remediation was associated with significant improvements across all three outcomes, with a medium effect size for cognitive performance (0.41), a slightly lower effect size for psy-

chosocial functioning (0.36), and a small effect size for symptoms (0.28). The effects of cognitive remediation on psychosocial functioning were significantly stronger in studies that provided adjunctive psychiatric rehabilitation than in those that provided cognitive remediation alone.

Conclusions: Cognitive remediation produces moderate improvements in cognitive performance and, when combined with psychiatric rehabilitation, also improves functional outcomes.

(Am J Psychiatry 2007; 164:1791–1802)

A meta-analysis of cognitive remediation for schizophrenia: methodology and effect sizes

Til Wykes¹, Vyv Huddy, Caroline Cellard, Susan R McGurk, Pál Czobor

Affiliations + expand

PMID: 21406461 DOI: [10.1176/appi.ajp.2010.10060855](https://doi.org/10.1176/appi.ajp.2010.10060855)

Abstract

Objective: Cognitive remediation therapy for schizophrenia was developed to treat cognitive problems that affect functioning, but the treatment effects may depend on the type of trial methodology adopted. The present meta-analysis will determine the effects of treatment and whether study method or potential moderators influence the estimates.

Method: Electronic databases were searched up to June 2009 using variants of the keywords "cognitive," "training," "remediation," "clinical trial," and "schizophrenia." Key informants were contacted to ensure that all studies meeting the criteria were included. This process identified 40 studies in which $\geq 70\%$ of participants had a diagnosis of schizophrenia, all were treated with standard care. There was a comparison group and allocation procedure in the study. Data were available to calculate effect sizes on cognition and/or functioning. Data were extracted by two reviewers with excellent reliability. Methodological moderators were evaluated using the Clinical Trials Assessment Measure and verified by authors in 94% of cases.

Results: The meta-analysis (2,104 participants) yielded durable effects on global cognition and functioning. The symptom effect was small and disappeared at follow-up assessment. No treatment element (remediation approach, duration, computer use, etc.) was associated with cognitive outcome. Cognitive remediation therapy was more effective when patients were clinically stable. Significantly stronger effects on functioning were found when cognitive remediation therapy was provided together with other psychiatric rehabilitation, and a much larger effect was present when a strategic approach was adopted together with adjunctive rehabilitation. Despite variability in methodological rigor, this did not moderate any of the therapy effects, and even in the most rigorous studies there were similar small-to-moderate effects.

Conclusions: Cognitive remediation benefits people with schizophrenia, and when combined with psychiatric rehabilitation, this benefit generalizes to functioning, relative to rehabilitation alone. These benefits cannot be attributed to poor study methods.

Gli effetti persistono...?

➤ [Schizophr Res.](#) 2015 Feb;161(2-3):403-6. doi: 10.1016/j.schres.2014.12.004. Epub 2014 Dec 19.

Persistence of effectiveness of cognitive remediation interventions in schizophrenia: a 1-year follow-up study

Giacomo Deste¹, Stefano Barlati¹, Paolo Cacciani¹, Luca DePeri², Roberto Poli³, Emilio Sacchetti⁴, Antonio Vita⁵

Affiliations + expand

PMID: 25533593 DOI: 10.1016/j.schres.2014.12.004

➤ [Schizophr Res.](#) 2018 Feb;192:335-339. doi: 10.1016/j.schres.2017.05.022. Epub 2017 May 23.

Integrated cognitive remediation and standard rehabilitation therapy in patients of schizophrenia: persistence after 5years

Mariachiara Buonocore¹, Marco Spangaro², Margherita Bechi¹, Maria Alice Baraldi³, Federica Cocchi¹, Carmelo Guglielmino¹, Laura Bianchi¹, Antonella Mastromatteo², Marta Bosia⁴, Roberto Cavallaro²

Affiliations + expand

PMID: 28545942 DOI: 10.1016/j.schres.2017.05.022

Randomized Controlled Trial ➤ [Psychiatry Res.](#) 2017 Aug;254:198-204.


doi: 10.1016/j.psychres.2017.04.065. Epub 2017 Apr 27.

Computer-assisted cognitive remediation therapy in schizophrenia: Durability of the effects and cost-utility analysis

Gemma Garrido¹, Rafael Penadés², Maite Barrios³, Núria Aragay⁴, Irene Ramos⁵, Vicenç Vallès⁶, Carlota Faixa⁷, Josep M Vendrell⁸

Affiliations + expand

PMID: 28463718 DOI: 10.1016/j.psychres.2017.04.065

- 
- ❖ Giovane età
 - ❖ Storia della malattia breve
 - ❖ Pochi sintomi disorganizzati
 - ❖ Alta riserva cognitiva al pre-trattamento
 - ❖ Basso dosaggio di antipsicotici durante il trattamento

Factors Associated With Response and Resistance to Cognitive Remediation in Schizophrenia: A Critical Review

Stefano Barlati^{1,2}, Giacomo Deste¹, Alessandro Galluzzo¹, Anna Paola Perin², Paolo Valsecchi², Cesare Turrina^{1,2} and Antonio Vita^{1,2*}


¹ Department of Mental Health and Addiction Services, ASST Spedali Civili, Brescia, Italy, ² Department of Clinical and Experimental Sciences, University of Brescia, Brescia, Italy

Cognitive impairment is a central feature of schizophrenia and has shown to play a crucial role in the psychosocial function of the disorder. Over the past few years, several cognitive remediation (CR) interventions have been developed for schizophrenia, whose effectiveness has also been widely demonstrated by systematic reviews and meta-analysis studies. Despite these evidences, many questions remain open. In particular, the identification of CR response predictors in patients with schizophrenia is still a topic with equivocal findings and only a few studies have looked for the relationship between CR response or resistance and the biological, socio-demographic, clinical and cognitive features in schizophrenia. The current knowledge on positive or negative response predictors to CR treatment in schizophrenia include: age, duration of illness, premorbid adjustment, baseline cognitive performance, intrinsic motivation, hostility, disorganized symptoms, neurobiological reserve, genetic polymorphisms, the amounts of antipsychotics, the type of CR, etc. The aim of this review is to identify neurobiological, psychopathological, cognitive, and functional predictors of CR response or resistance in schizophrenia, taking into account both cognitive and functional outcome measures. The information obtained could be very useful in planning integrated and



Oltre le psicosi.....

- Da alcuni anni la Cognitive Remediation (CR) ha trovato largo impiego nelle patologie psichiatriche quali depressione, disturbo bipolare, anoressia nervosa
- Nei **disturbi dell'umore** quali Depressione e Disturbo Bipolare gli interventi di CR hanno migliorato il dominio cognitivo e quello sociale-occupazionale.
- Nell'**Anoressia Nervosa** la CR migliora la flessibilità mentale e le funzioni esecutive.
- Nei **Disturbi d'ansia** migliorano la working memory e in generale il quadro sintomatologico.
- Nel **Disturbo Borderline di Personalità** oltre alla working memory migliora la compliance del paziente alla terapia.



*«Non è importante tanto il fatto che in futuro ci
siano o meno manicomi e cliniche chiuse, è
importante che noi adesso abbiamo provato che si
può fare diversamente, ora sappiamo che c'è un altro
modo di affrontare la questione; anche senza la
costrizione.»*

(Franco Basaglia).



Grazie per
l'attenzione