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A Randomized Controlled Trial (RCT) evaluating the efficacy of the Metacognitive training (MCT) program for patients with schizophrenia spectrum disorders in the context of
1. cognitive insight and **2. general self-efficacy**

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Schizophrenia Spectrum Disorders

Severe mental
illness
Psychosis

Major impact
on the person's
function

Reflected in 3 main aspects:

Repeated
hospitalizations

Difficulty in
maintaining
employment

A lack of social
relationships

Lack of insight



Deficits in Metacognition

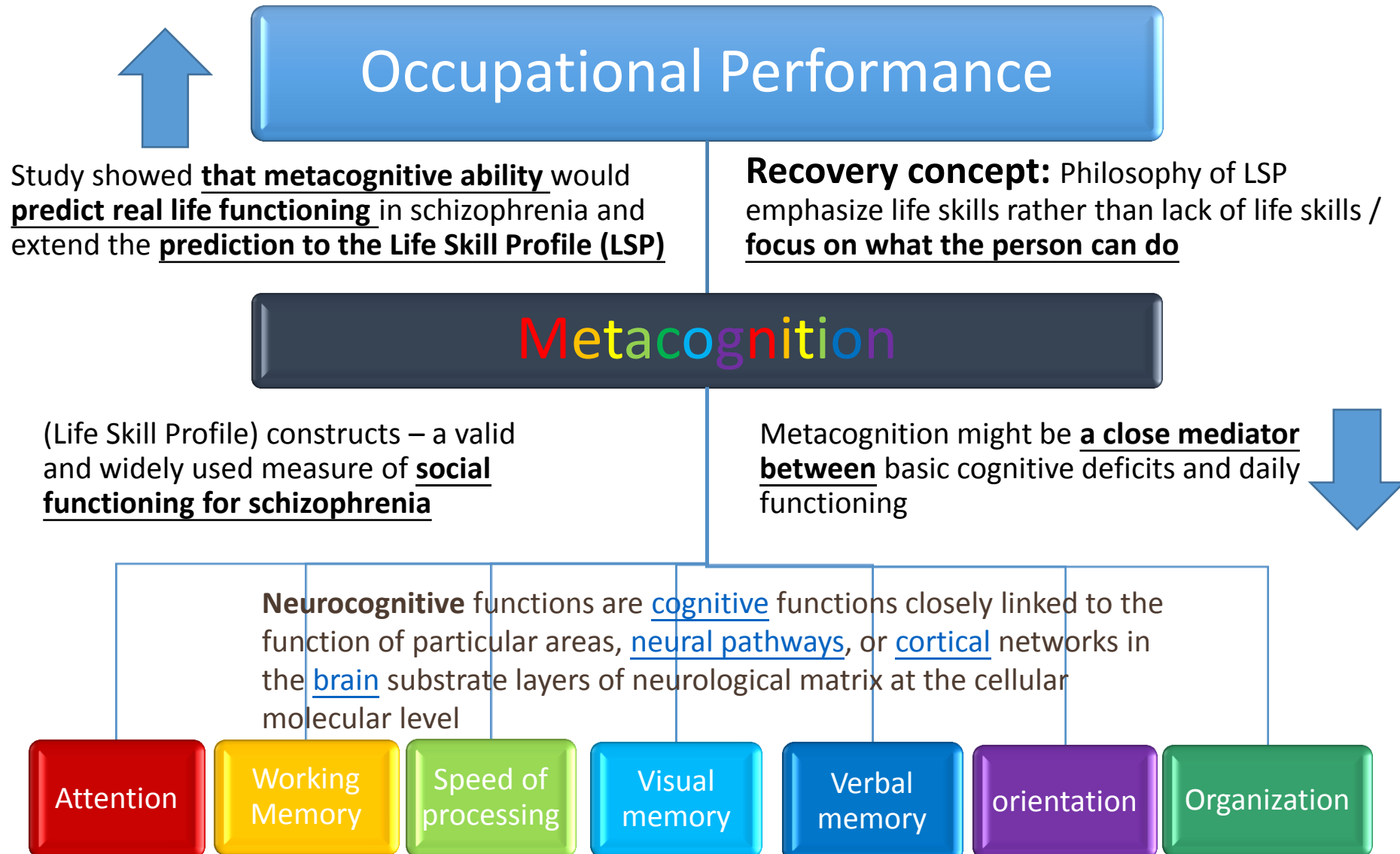
Complex ideas for
making
judgments

Recognizing
important
information in social
interactions

Predicts effective
work function

Barriers or Booster
for recovery-oriented
practice

Concept map of metacognition



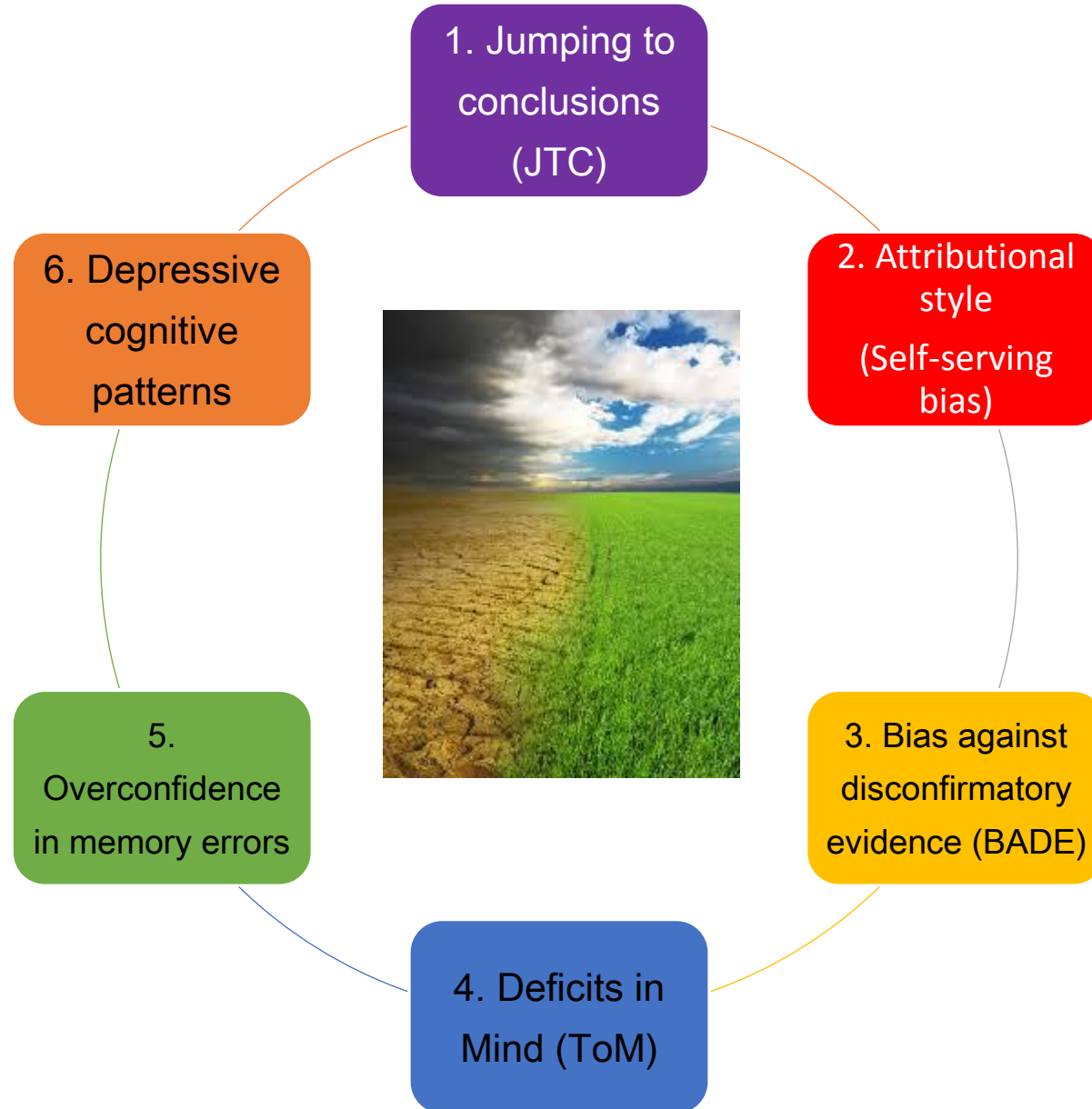
Increasingly investigation on cognitive biases in schizophrenia

1980s



Formation & maintenance
of delusions

6 Cognitive Bias in Schizophrenia



MCT program since 2005

Dr. Steffen Moritz

Dr. Todd S. Woodward





Metacognitive training (MCT) program for Psychosis

Developed by Dr. Steffen Moritz and Dr. Todd S. Woodward

Psycho-education

Cognitive
remediation

Cognitive-
behavioral therapy

1. A feasible and effective complement of standard psychiatric treatment
2. Enhancement of metacognitive abilities
3. Tackle cognitive biases subserving delusions
4. Evidence-based approach
5. Over 30 languages

Metacognitive Training for Schizophrenia Patients (MCT)

An attempt to bridge schizophrenia basic research and clinical intervention



Todd S. Woodward (Vancouver, Canada)

Steffen Moritz (Hamburg, Germany)

歡迎來到

訓練模組 3: 改變信念

該模組中使用的圖片已經得到作者及版權所有者授權。
詳細資訊（作者名，題目）請參閱本檔最後一頁。

05/11 A

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練習

- 下列顯示的每一種情景將由三張圖片組成，並提供了不同的解釋。
- 這些圖片將按照逆序顯示，即最後發生的事最先顯示。
- 在圖片顯示後，要求你對每一種提供的解釋的合理性或可能性進行評定。當每一張構成該情景的新圖片被加入時，都需要重新評定。
- 請與組員討論你對你的評分自信程度如何？

你如何可能發現每一種選項？



3

- 1) 這個男孩正在享受美好的一天。
- 2) 這個男孩偷偷從園林作業中溜出來釣魚。
- 3) 這個男孩想抓條魚回去取悅他的媽媽。
- 4) 這個男孩偷了魚蟲來釣魚。

你的判斷隨著新圖片的出現改變了嗎？



2



3

- 1) 這個男孩正在享受美好的一天。
- 2) 這個男孩偷偷從園林作業中溜出來釣魚。
- 3) 這個男孩想抓條魚回去取悅他的媽媽。
- 4) 這個男孩偷了魚蟲來釣魚。

請重新評定可能性！



1



2



3

- 1) 這個男孩正在享受美好的一天。
- 2) 這個男孩偷偷從園林作業中溜出來釣魚。
- 3) 這個男孩想抓條魚回去取悅他的媽媽。
- 4) 這個男孩偷了魚蟲來釣魚。



1



2



3

- 1) 這個男孩正在享受美好的一天。
- 2) 這個男孩偷偷從園林作業中溜出來釣魚。
- 3) 這個男孩想抓條魚回去取悅他的媽媽。
- 4) 這個男孩偷了魚蟲來釣魚。

Metacognitive training (MCT) program acting on **metacognitive awareness**

Focuses on the cognitive biases (i.e., problematic thinking styles) thought to underlie the formation and maintenance of delusional beliefs



To raise the patient's awareness of these cognitive distortions



Rather than directly developing an awareness of the implausible content of a client's delusion



To prompt them to **critically reflect on, complement and alter their current repertoire of problem solving skills**




Increases the flexibility in responses to negative ideas



Constructive use of one's cognition to improve thinking and coping style

Rational of the titled RCT study

A number of recent studies have demonstrated **significant reductions in delusional severity** (including distress and conviction) following MCT



Improvement on the **cognitive bias measures** following MCT



Less attention on other facets of the illness
such as **impaired cognitive Insight**



The ability of people with psychosis **to evaluate and correct their distorted beliefs and misinterpretations** (Beck, Baruch, Balter, Steer, & Warman, 2004)

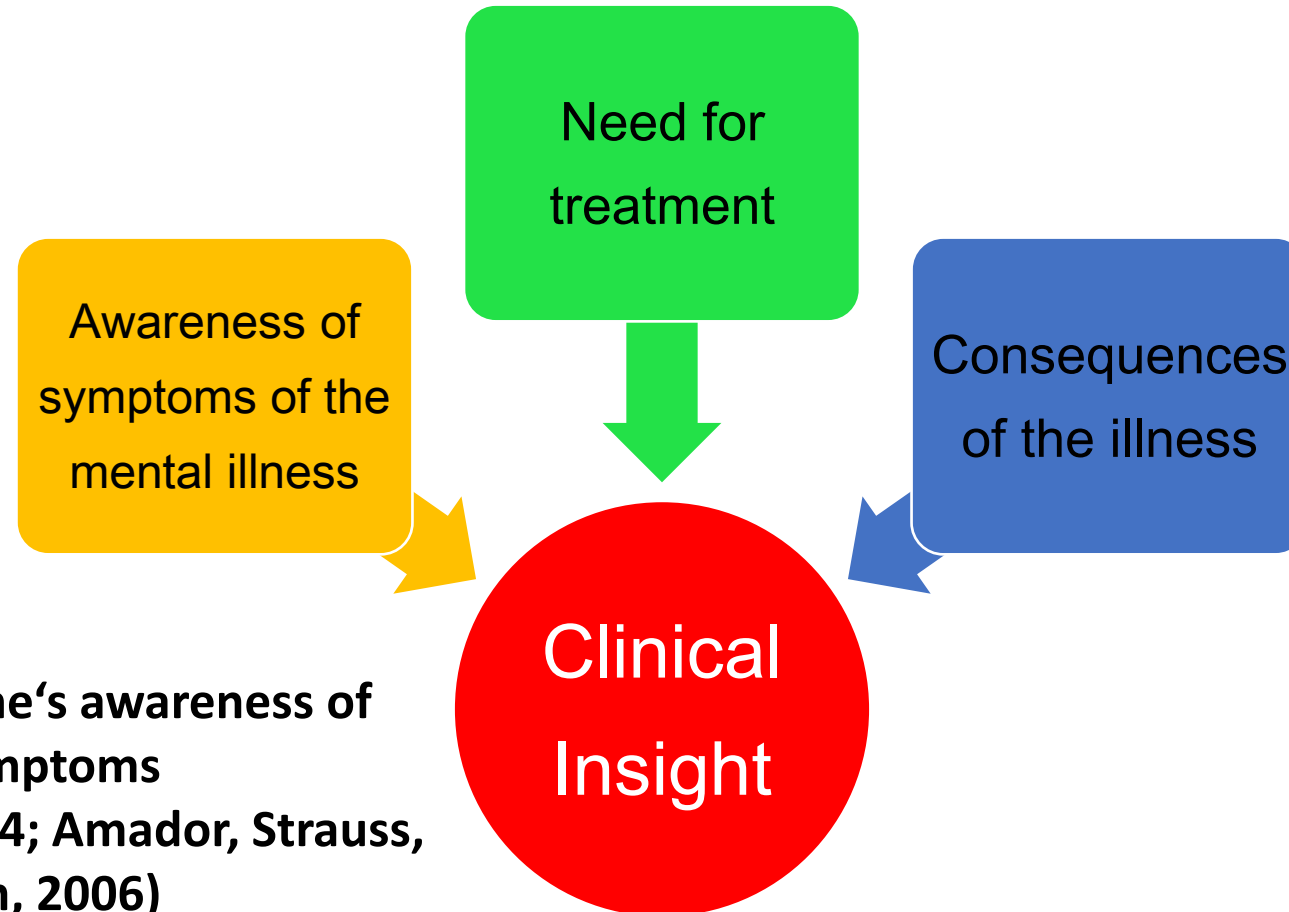


Potentially to improve cognitive insight as **it promotes greater cognitive flexibility and attempts to reduce overconfidence in existing delusional beliefs**



Potentially to improve subjective self-efficacy as it may offer clients **more constructive thinking and reasoning strategies**

Does clinical insight directly affect the functional outcome?



Clinical insight - which is one's awareness of their mental illness and symptoms (e.g., Amador & David, 2004; Amador, Strauss, Yale, & Gorman, 1991; Dam, 2006)



Anomalous experiences
&
misattributions

It is on their relative inability to ...

Cognitive Insight !!

Distance themselves from these biases

- **Vulnerable to cognitive biases**

Their relative impermeability to corrective feedback

- **Poor prognosis as a result**

Metacognitive Training (MCT) for schizophrenia improves self-reflectiveness and general self-efficacy: A randomized controlled trial in a Chinese sample with schizophrenia spectrum disorders

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2013

Protocol of the titled RCT study

From the Occupational Therapy (OT) Department at Kwai Chung Hospital, Hong Kong



A total of 80 participants with schizophrenia spectrum disorders were recruited



77 participants were randomized to either an active intervention group receiving MCT (n = 38) or a control group (n = 39) continuing treatment as usual (TAU)



MCT participants **were led through all 8 of the group intervention sessions**, which cover six different cognitive and social biases



Each session lasted approximately 60 minutes and adhered to the study protocol provided in the manual (see www.uke.de/mkt)



Clients in the TAU group received general treatment from a case occupational therapist over a similar four week period

Beck Cognitive Insight Scale (BCIS)

以下所列舉的句子與人們的想法與感覺有關。請您仔細地讀每一題，依據您所「同意」的程度，在題目之前的4個選項中找出最合適選項，並在其對應的方塊空格內打「✓」做記號，

請勿漏題！

	完全 無法 同意	少 部份 同意	絕 大 部份 同意	完 全 同 意	題 目
1					有時候我會誤解別人對自己的態度或看法。
2					我對於自己所擁有經驗的解釋一定是正確的。
3					別人比我更加了解造成自己所擁有不尋常經驗的原因。
4					對於週遭事情，我經常太快下結論。
5					自己某些經驗似乎是真實的，可能歸因於自己的想像。
6					某些想法我確信它是真的，但之後卻變成假的。
7					如果有些事物我覺得它是對的，那就表示它是對的。
8					即使我強烈地覺得我是對的，我仍有可能是錯的。
9					我比任何人更加瞭解自己的問題所在。
10					當別人不贊同我時，他們這麼做是錯的
11					我無法相信別人對自己所擁有經驗的意見及看法。
12					當有人指出我的想法是錯的，我願意認真去考慮這個問題。
13					我隨時可以相信自己的判斷。
14					對於人們為何要這麼做的原因通常不單只有一種可能。
15					我不尋常的經驗可能是當我處在極度的不安及壓力下所產生。

再次謝謝您的參與！

1st Main Outcome Measure ! Cognitive Insight (By BCIS – Taiwanese Version)

BCIS has **its simple calculation**

9 items

capacity and willingness to observe their mental productions and to consider alternative explanations.



6 items

overconfidence in the validity of their anomalous experiences, their attributions, and their aberrant interpretations of specific life events

自我效能感量表

Chinese General Self-efficacy Scale (Chiu & Tsang, 2004)

- 1 如果我盡力去做的話，我總是能夠解決難題的。
I can always manage to solve difficult problems if I try hard enough.
- 2 即使別人反對我，我仍有辦法取得我所要的。
If someone opposes me, I can find the means and ways to get what I want.
- 3 對我來說，堅持理想和達成目標是輕而易舉的。
It is easy for me to stick to my aims and accomplish my goals.
- 4 我自信能有效地應付任何突如其來的事情。
I am confident that I could deal efficiently with unexpected events.
- 5 以我的才智，我定能應付意料之外的情況。
Thanks to my resourcefulness, I know how to handle unforeseen situations
- 6 如果我付出必要的努力，我一定能解決大多數的難題。
I can solve most problems if I invest the necessary effort.
- 7 我能冷靜地面對難題，因為我可信賴自己處理問題的能力。
I can remain calm when facing difficulties because I can rely on my coping abilities.
- 8 面對一個難題時，我通常能找到幾個解決方法。
When I am confronted with a problem, I can usually find several solutions.
- 9 有麻煩的時候，我通常能想到一些應付的方法。
If I am in trouble, I can usually think of a solution.
- 10 無論甚麼事在我身上發生，我都能夠應付自如。
I can usually handle whatever comes my way.

Response Format;

1 = 完全不正確 (Not at all true) 2 = 尙算正確 (Hardly true) 3 = 多數正確 (Moderately true)
4 = 完全正確 (Exactly true)

Reference:

Chiu, F. P. F., & Tsang, H. W. H. (2004). Validation of the Chinese General Self-Efficacy Scale among individuals with schizophrenia in Hong Kong. *International Journal of Rehabilitation Research*, 27(2), 159-161.

2nd Outcome Measure ! Chinese General Self-Efficacy (By CGSS)

「至醒腦博士」小組訓練課堂 意見調查

謝謝您接受上述的治療服務，現誠邀閣下回答以下問題，以收集你對有關服務的意見，
你的寶貴意見有助改善和提升我們的服務。

第一部份

你有多同意以下十項對「至醒腦博士」小組課堂有關的描述？

請運用以下5項評分制：

1 = 完全不同意 2 = 不同意 3 = 不肯定 4 = 同意 5 = 完全同意

以下十項意見，您會給予多少分數？	分數
1. 我認為此小組治療活動是有用及合理的	
2. 我要強迫自己去參與此小組訓練	
3. 在日常生活中，我並不運用課堂內的知識	
4. 我認為此小組訓練課堂是我治療過程中一個重要的部份	
5. 這些時間我寧願選擇用作做其他事情上	
6. 此小組治療活動有趣	
7. 課堂內的大部份知識能夠幫助我提升面對日常生活的處理能力	
8. 我清楚此小組訓練課堂的主要目的	
9. 我會把此小組訓練課堂推薦給其他人	
10. 我認為此訓練課堂以小組形式是有成效的	

3rd Outcome measure

Subjective training satisfaction from adapted feedback form

Overall attendance rate = **82%**

1. Primary outcome
Cognitive insight
(P<0.001)

• In-patient more prominent

2. Secondary outcome
General self-efficacy
(P<0.011)

• Out-patient more prominent

3. Subjective outcome
Subjective training
success

• **** agree in positive appraisals

Mixed ANOVA

Interaction effect (P<0.001) ** both Ax

MCT participants are significant different from control

RCT

38 VS 37

4 intervention group x control

Sig. improvement in
Self-reflectiveness sub-scale

**Higher metacognitive awareness in
self-reflectivity under metacognition**

More constructive thinking style
and coping strategy

**Correlates to improved psychiatric
symptoms + Improves functional
outcome (Prediction of work
performance)**

1. Our hypothesis that MCT would improve cognitive insight was supported

but this was driven by an increase in self-reflectiveness, rather than a Simultaneous decrease in self-certainty, which remained unchanged

2. Findings also supported our hypotheses that the MCT program would enhance general self-efficacy

3. It would be rated favorably by the Chinese sample on various subjective measures of training satisfaction (i.e., effectiveness, usefulness, applicability to treatment and daily life, transparency of the aims, and fun)

4. In contrast, we observed a deterioration of cognitive insight (i.e., less self-reflectivity) and general self-efficacy in the TAU control group

2 Key Points being noted

1. Confirms the notion that MCT works by **increasing clients' metacognitive awareness and cognitive flexibility**, which may, in turn, reduce the severity of delusional symptoms
2. not only implies that the MCT program is feasible and subjectively efficacious among Chinese samples, but that it also **encourages clients to be more cognitively reflective and competent in their ability take to control of their lives**

Metacognitive training (MCT)
offers our clients **a new way of thinking**
and enhances their functional outcomes !



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