

**Working Memory, Jumping to Conclusions and Emotion Recognition: a Possible Link in First Episode Psychosis (Fep)**

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### Introduction

A large body of literature has demonstrated that people affected by psychotic disorders show deficits in working memory, in Emotion Recognition (ER) and in data-gathering to reach a decision (Jumping To Conclusions - JTC).

### Aims

To investigate a possible correlation between working memory, JTC and ER in FEP.

### Methods

41 patients and 89 healthy controls completed assessments of working memory using WAIS shortened version, JTC using the 60:40 Beads Task and ER using Degraded Facial Affect Recognition Task.

### Results

According to the literature, cases had poorer performance in working memory tasks (Digit Span:  $\mu$ 7,72 [ds=2,98] vs  $\mu$ 10,14 [ds=3,10],  $U=865,00$ ,  $p=0,00$ ; Digit Symbol:  $\mu$ 5,36 [ds=2,43] vs  $\mu$ 10,05 [ds=3,10],  $U=455,50$ ,  $p=0,00$ ; Arithmetic:  $\mu$ 5,46 [ds=2,76] vs  $\mu$ 8,74 [ds=3,24],  $U=865,50$ ,  $p=0,00$ ; Block Design:  $\mu$ 4,82 [ds=2,72] vs  $\mu$ 7,60 [ds=3,18],  $U=912,00$ ,  $p=0,00$ ), in Beads Task (81,6% vs 51,1%,  $\chi^2=10,27$ ,  $p=0,001$ ,  $\mu$ 2,53 [ds=3,57] vs  $\mu$ 4,23 [ds=4,77],  $U=1171,00$ ,  $p=0,006$ ) and in DFAR (total errors:  $\mu$ 21,62 [ds=7,43] vs  $\mu$ 16,58 [ds=8,69],  $U=554,50$ ,  $p=0,002$ ). Furthermore working memory tasks in cases group correlated significantly with JTC (Digit Span:  $r_{rho}=0,276$ ,  $p=0,003$ ; Digit Symbol:  $r_{rho}=0,275$ ,  $p=0,002$ ; Arithmetic:  $r_{rho}=0,265$ ,  $p=0,003$ ; Block Design:  $r_{rho}=0,292$ ,  $p=0,001$ ), but only Digit Span with ER ( $r_{rho}=-0,239$ ;  $p=0,021$ ). In addition, we found that JTC and ER were significantly associated ( $r_{rho}=-0,281$ ;  $p=0,004$ ).

### Conclusions

Data show that working memory impairments, JTC style and dysfunctions in the facial emotions recognition are phenomena strongly correlated in the group of patients. Preliminary results suggest the importance of early rehabilitation as the impairments detected may lead to difficulties in social and relational adaptation in psychotic patients.