

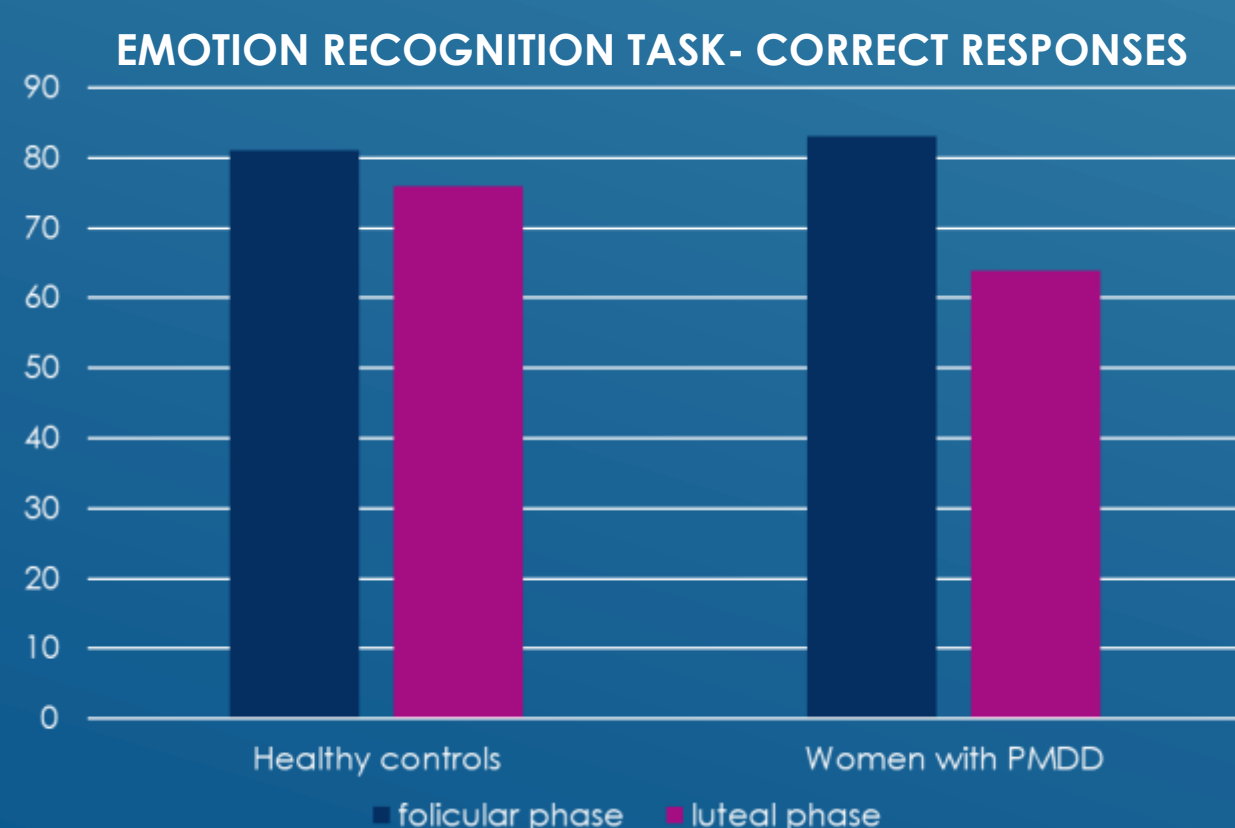
**1076: Can we predict clinical response to SSRIs treatment in women with Premenstrual Dysphoric Disorder (PMDD); The role of emotion experience and recognition during the menstrual cycle.**

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**Introduction:** Premenstrual dysphoric disorder (PMDD) is a more serious form of premenstrual syndrome (PMS). Between 20 and 40 percent of women experience moderate to severe premenstrual symptoms (PMS). Between 3 and 8 percent of these experience symptoms that prevent them from functioning in normal daily life. The exact causes are still not fully understood but researchers believe that PMDD is caused by being very sensitive to changes in hormone levels. Recent research suggests that PMDD is associated with increased sensitivity to the normal hormonal changes that occur during the monthly menstrual cycle. PMDD occurs during the luteal phase of the menstrual cycle and causes a cluster of affective, behavioral and somatic symptoms that recur monthly during the premenstrual phase of the menstrual cycle and end shortly after menstruation begins. Symptoms of PMDD associated with mood predominate. In addition to observations of emotional experiences, some authors have found differences in emotional recognition during the menstrual cycle. PMDD is a chronic condition that necessitates treatment when it occurs. Available treatments include lifestyle modifications and medication, such as selective serotonin reuptake inhibitors (SSRIs).

**Aim:** The aim of this study was to examine if rapid improvement in Emotion recognition processing across menstrual cycle after SSRIs intake predicts clinical response to pharmaceutical treatment in women with Premenstrual Dysphoric Disorder (PMDD).



**Methods:** We examined 32 women with a PMDD, who have visited the Mental Health Centre (aged 18-35 y.o., right handed, educational level >9 y., regular cycle duration). Women were clinically interviewed (DSM-V) and examined with the Premenstrual Syndrome Questionnaire. SSRIs (Fluoxetine 20mg and Sertraline 50mg) were dosed intermittently in the luteal phase. The Emotion Recognition Task (ERT) was administered both at baseline and three days after the medication onset. The Emotion Recognition Task (ERT) is a computer-generated paradigm for measuring the recognition of six basic facial emotional expressions: anger, disgust, fear, happiness, sadness, and surprise. During this test, video clips of increasing length are presented, starting with a neutral face that change into a facial expression of different intensities.

**Results:** At baseline, women with PMDD showed significant differences in emotion recognition depending on the luteal and the follicular phase. More specifically, we found that women during the luteal phase gave overall less accurate responses and misjudged to sad. ERT was also administered three days after the treatment onset. Twenty women at this phase gave more accurate responses than before and misjudged less to sad, whereas 12 women did not show any differences when compared to baseline. After one month of SSRIs therapy, 16 women (80%) out of the above-mentioned 20 women with PMDD showed response to treatment that led to clinical improvement in symptoms and functioning. As far as the 12 women without any changes are concerned, only three out of them (25%) showed clinical improvement. Overall, 59% of the sample had their symptoms improved after a month.

**Conclusions:** Our findings suggest that emotion recognition processing could be a predictor of clinical response to SSRIs treatment in PMDD.

**WITHOUT ANY CONFLICT OF INTEREST**