

**Objectives:** To analyze the impact of prenatal subclinical depressive symptomatology in cortisol circadian rhythm through pregnancy and its relevance for postpartum depression risk.

**Methods:** A cohort of 112 healthy pregnant women (Mean age $\pm$ SD = 32.32 $\pm$ 4.37) of the general population was followed throughout their first pregnancy and first two months of postpartum period. Diurnal salivary cortisol curve (four measures) was obtained for every trimester; the Area Under the Curve with respect to the ground (AUCg) and with respect to the increase (AUCi) were used as measures of basal HPA axis functioning. Depressive symptomatology was assessed every pregnancy trimester and postpartum period following EPDS criteria. All the analyses were adjusted for maternal age, weight, ethnicity and socioeconomic status and sample collection's time.

**Results:** Prenatal subclinical depressive symptomatology (EPDS>10) was associated with a blunted cortisol rhythm during first trimester (F= 3.913, p=.011) but not during second (F=2.629, p=056) or third trimesters (F=.411, p=.724). Furthermore, a logistic regression model showed a positive association between Prenatal subclinical depressive symptomatology and the risk of postpartum depression ( $\chi^2=13.8$ , p<.001, OR=9.6; 95%CI 2.5–35.5).

**Conclusions:** Women with subclinical depressive symptomatology in early pregnancy had alterations in cortisol circadian rhythmicity and a higher risk of postpartum depression.

**Disclosure:** No significant relationships.

## O0105

### The impact of maternal SARS-COV-2 infection in early stages of newborn neurodevelopment: preliminary results in a multicenter Spanish study

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**Introduction:** The consequences for the COVID-19 pandemic in the newborns of affected mothers remains unknown. Previous clinical experiences with other infections during pregnancy lead to considered pregnant women and their offspring especially vulnerable for SARS-COV-2. That is, the underlying physiopathological changes caused by the infection (e.g. storm of cytokines, micro-coagulation in placenta or vertical transmission) could clearly compromise fetal neurodevelopment.

**Objectives:** To analyze the impact of maternal SARS-COV-2 infection during pregnancy in early neurodevelopment of infants gestated during the COVID-19 pandemic period compared to those gestated immediately prior (2017-2021).

**Methods:** 212 pregnant women (14% infected) were followed throughout their pregnancy and postpartum, including newborn development. SARS-COV-2 infection was serologically confirmed during pregnancy. The Brazelton Neonatal Assessment Scale (NBAS) was administered at 6 weeks old by a trained neonatologist to evaluate neurological, social and behavioral aspects of newborn's functioning. Differences in NBAS scores between cases and controls were tested by ANOVAs. All the analysis were adjusted for maternal age, sociodemographic status, anxious-depressive symptomatology, infant's sex and gestational age at birth and NBAS, and for the period of gestation (previous or during COVID-19 pandemic).

**Results:** NBAS social interactive dimension was significantly decreased in those infants exposed to prenatal SARS-COV-2 (F= 4.248, p=.043), particularly when the infection occurred before the week 20 of gestation. Gestation during COVID-19 pandemic did not alter NBAS subscales.

**Conclusions:** SARS-COV-2 infection during pregnancy seems to be associated with lower NBAS scores on social dimension in 6 weeks old exposed newborns.

**Disclosure:** No significant relationships.

**Keywords:** Newborn Development; Pregnancy Infection; COVID19; NBAS

## O0106

### The impact of the Covid-19 pandemic on peripartum affective psychopathology

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**Introduction:** Despite COVID-19 pandemic significantly impacting mental health, few studies evaluated effects on perinatal mental health.

**Objectives:** Therefore, we aimed at assessing pregnant and puerperal women during first and second COVID-19 waves.

**Methods:** 70 women (41 pregnant and 29 puerperal) consecutively afferent to our outpatient service for Perinatal Mental Health (March 2020-March 2021) were administered Edinburgh Postnatal Depression Scale (EPDS), Fear of COVID-19 (FCV-19-S), Coronavirus Anxiety Scale (CAS) and Wijma Delivery Expectancy/Experience questionnaire (WDEQ).

**Results:** Women who reported last menstruation date (LMD) in 2019 second semester showed higher EPDS scores (p=0.026), those with estimated delivery date (EDD) in 2021 second semester showed higher CAS scores than those with EDD in 2020 first semester (p=0.020) or in 2021 first semester (p<0.001). Women with clinically significant EPDS Scores reported higher FCV-S-19 (p=0.005) and CAS (p=0.003). Subjects with a previous psychiatric hospitalization showed higher FCV-S-19 (p=0.003). A weak positive correlation (r=0.290; R2=0.084; p=0.015) has been observed between FCV-S-19 and EPDS. Furthermore, there was a strong positive correlation (r=0.377; R2=0.142; P=0.001) between CAS and EPDS and between CAS and FCV-S-19 (r=0.641; R2=0.410; p<0.001). All subjects showed high scores for tocophobia after experiencing delivery.

**Conclusions:** COVID-19 pandemic significantly impacted pregnant and/or postpartum women also without a previous psychiatric

condition. Early identification and screening tools should be routinely provided to all pregnant and postpartum women.

**Disclosure:** No significant relationships.

**Keywords:** postpartum depression; Covid-19; peripartum; woman mental health

## O0107

### The physical-mental health interface during pregnancy planning

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**Introduction:** The physical and mental health of women prior to conception can have a significant impact on pregnancy and child outcomes. Given the rising burden of non-communicable diseases, the aim of this analysis was to explore the relationship between mental health, physical health and health behaviour in women planning a pregnancy.

**Objectives:** To investigate the association between indices of physical and mental health in a large population of women in the UK planning a pregnancy.

**Methods:** Responses to a preconception health digital education tool provided data on the physical and mental health and health behaviour of 131,182 women planning pregnancy. Logistic regression was used to explore associations between mental health and physical health variables. Multiple imputation by chained equations was implemented to handle missing data.

**Results:** There was evidence for an association between physical and mental health conditions (OR 2.22; 95% CI 2.14, 2.3). There was also an association between having a mental disorder and physical inactivity (OR 1.14; 95% CI 1.11, 1.18), substance misuse (OR 2.4; 95% CI 2.25, 2.55) and less folic acid use (OR 0.89; 95% CI 0.86, 0.92).

**Conclusions:** There is a need for greater integration of physical and mental healthcare for women in the preconception period, which could support women, including those who wish to conceive, to optimise their health during this time.

**Disclosure:** No significant relationships.

**Keywords:** preconception; pregnancy; health behaviour; mental disorder

## O0108

### Pharmacogenetics and antidepressant treatment outcomes in pregnancy: a Danish-population based study

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**Introduction:** Depression in pregnancy is common and often requires treatment with antidepressant drugs. Most antidepressants are metabolized by the cytochrome P450 system (CYP), in particular CYP2C19 and -2D6, both of which are genetically polymorphic. Additionally, the activity of these enzymes is altered during pregnancy. **Objectives:** To investigate pharmacogenetic variability regarding CYP2C19 and -2D6 in pregnant users of antidepressants and treatment outcomes.

**Methods:** The study population comprises all women born between 1981-1999, who gave birth to at least one child before December 2015 identified from the large Danish population-based iPSYCH2012 case-cohort study sample linked to information on genetic variants, prescription drug use and outcome data. Pharmacogenetic genotypes and phenotypes of CYP2C19 and CYP2D6 will be categorized into poor, (PM), intermediate, (IM), extensive, (EM), rapid (RM) and ultra-rapid metabolizers (RM) using array-based SNP information. Antidepressant drug use and comedication during pregnancy will be assessed based on prescription data. Outcomes include treatment discontinuation, switching and psychiatric hospitalizations. Cox regression analysis will be performed to estimate the hazard ratios comparing the rates of the different outcomes in people with different phenotypes, compared with EM adjusted for a number of confounding factors.

**Results:** Based on previous research we will be able to identify approximately 6531 pregnant women with a psychiatric history. Among those, we estimate to find 14 PM, 161 IM, 285 EM, 168 RM and 25 UM of CYP2C19, and 27 PM, 218 IM and 408 EM of CYP2D6. Exposure to antidepressants is estimated at 10%.

**Conclusions:** We expect to be able to present the results at the conference.

**Disclosure:** No significant relationships.

**Keywords:** Depression; Antidepressants; pharmacogenetics; Pregnancy

## O0109

### Depressive symptoms in the peripartum: incidence and associated characteristics

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**Introduction:** The peripartum is a period at high risk for the onset of depressive symptoms. The prevalence of peripartum depression (PD) ranges from 6 to 20% and is burdened with high adverse birth outcomes, poor mother-infant bonding, and a high risk for suicidal ideation and attempts. However, PD is underrecognized and consequently undertreated.

**Objectives:** We aimed at screening depressive symptoms in women during pregnancy and postpartum, and evaluating the socio-demographic and clinical characteristics associated with depressive symptoms.

**Methods:** 199 women, 55 during pregnancy and 144 in the postpartum period, consecutively admitted to the Perinatal Mental Health Service of Ancona (Italy) were administered a socio-demographic and clinical questionnaire together with the Edinburgh