1ST SWISS PERINATAL RESEARCH SPECIAL INTEREST GROUP SYMPOSIUM

"COLLABORATE FOR HIGH QUALITY PERINATAL CARE" | 23 November 2021

Zürich, Switzerland

This half-day symposium aims to bring together researchers from various disciplines who are interested in advancing science to promote the best quality of perinatal care in Switzerland and beyond.

Keynote Speakers

Dr. Alain Gregoire is Founder, former Chair, and now Honorary President of the Maternal Mental Health Alliance UK and the Global Alliance for Maternal Mental Health. He is a member of the NICE Guideline Development Group for Antenatal and Postnatal Mental Health and has contributed to the development of policy, guidance, and clinical services in the UK and abroad. He is determined to ensure that all women have access to care for their mental health which is at least as good as the care available for their physical health in pregnancy and postnatally.

Prof. Dr. Jessica Pehlke-Milde has been a midwife and midwifery researcher for more than 30 years. After training as a midwife in 1987, she worked in all settings of maternity care with a special focus on evidenced based practice. In 2011, she became a Professor and in 2014 head of the midwifery research unit at the Zurich University of Applied Sciences. Jessica's passion is women centred care with the aim of informing and improving maternity care in Switzerland and beyond. Her personal research interests focus on the experiences and perspectives of women and their partners during pregnancy, birth, and the postpartum period. Recent research activities focus on the development and implementation of innovative models of maternity care.

Swiss Society for Early Childhood Research
Thurgau University of Teacher Education
Karina Iskrzycki | Administrative office
Unterer Schulweg 3
CH-8280 Kreuzlingen

Tel. +41 (0)71 678 56 39
info@earlychildhoodresearch.ch
www.earlychildhoodresearch.ch

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Programme

13h30-13h45	**Welcome**	Prof Antje Horsch	
13h45-14h15	**Keynote** : Why does maternal mental health matter for research and the society as a whole?	Dr Alain Gregoire	
14h15-14h45	**Keynote : It does matter how we are born: Using the Quality Maternal and Newborn Care Framework to improve maternal and child health in Switzerland**	Prof Dr. Jessica Pehle-Milde	
14h45-15h00	**Break**		
15h00-16h30	**Oral presentations**	**Title**	**Minutes**
	1 Sandoz, Vania 2 Deforges, Camille 3 Gilbert, Leah 4 Sandoz, Vania 5 Puglisi, Nilo 6 Pereira, Enes 7 Meyer, Yvonne 8 Grylka, Susanne 9 Avignon, Valérie 10 Meier, Fabinne	**See below.**	**15** **8** **8** **8** **8** **8** **8** **8** **8** **8**
16h30-17h00	**Round table** *How to overcome the challenges of interprofessional collaboration to advance science and quality perinatal care*	**Moderator**: Dr. Oguz Omay Multidisciplinary panel of Prof. Antje Horsch - Clinical Psychologist Dr. Alain Gregoire -Psychiatrist Prof. Jessica Pehle-Milde - Midwife Prof. Anne-Sylvie Ramelet - Nurse Prof. Manuella Epiney - Obstetrician Dr. Giancarlo Natalucci - Neonatologist A service user representative - ReNaissances Dr. Lamyae Benzakour Liaison psychiatrist	

Distinct influences of maternal mental health symptom profiles on infant sleep problems

Vania Sandoz[1], Alain Lacroix[1], Suzannah Stuijfzand[1], Myriam Bickle-Graz[2], Antje Horsch[1,2]

[1]Institute of Higher Education and Research in Healthcare, University of Lausanne, Switzerland; [2]Department Woman-Mother-Child, Lausanne University Hospital, Switzerland; vania.sandoz@chuv.ch

Aims: The distinct influence of different maternal mental health (MMH) difficulties (postpartum depression, anxiety, childbirth-related posttraumatic stress disorder) on infant sleep problems is unknown, although MMH was reported to be associated with infant sleep. Moreover, the parent-infant interactive context (infant-related maternal cognitions, bedtime routine) can mediate these associations. Therefore, this study aimed to examine the differential influences of MMH symptom profiles on infant sleep problems, when mediated by maternal perception of infant temperament and by the method to fall asleep, and moderated by maternal education or infant age.

Methods: French-speaking mothers of 3-12-month old infant (n=410) participated in an online cross-sectional survey. Standardised questionnaires assessed sleep (night waking and nocturnal sleep duration), method to fall asleep, maternal perception of infant negative temperament, and maternal postpartum depression, anxiety, and childbirth-related posttraumatic stress disorder symptoms. Sociodemographic data were also collected. Data was analysed using structural equation modelling.

Results: Birth trauma symptoms (e.g., childbirth-related flashbacks) were not associated with sleep, while the links between the depressive or anxious profiles and adverse sleep outcomes were fully or partially mediated by maternal perception of infant negative temperament, depending on infant age or maternal education. The method to fall asleep did not mediate the link between MMH symptom profiles and sleep.

Discussion: Findings suggest that different mechanisms are involved in the relationships between infant sleep and MMH, depending on maternal symptomatology. Maternal depressive or anxious contexts already influence infant sleep within the first year postpartum. Consequences of childbirth-related trauma on infant sleep may develop later on.

Testing a Single-session Behavioral Intervention to Reduce Intrusive Traumatic Memories and PTSD Symptoms after Childbirth: a Proof-of-principle Study

Camille Deforges[1], Déborah Fort[1], Suzannah Stuijfzand[1], Emily Holmes[2], Antje Horsch[1,3]

[1]Institute of Higher Education and Research in Healthcare, University of Lausanne, Switzerland; [2]Department of Psychology, Uppsala University, Sweden; [3]Woman-Mother-Child Department, Lausanne University Hospital, Lausanne, Switzerland; camille-deforges@hotmail.fr

Introduction: Childbirth-related intrusive traumatic memories (CB-ITM) are involuntary and distressing sensory impressions of the birth, and a key symptom of childbirth-related posttraumatic stress disorder (CB-PTSD). Laboratory studies suggest that ITM and PTSD symptoms could be reduced via exposure to trauma-related reminder cues combined with a task hypothesized to interfere with trauma memory reconsolidation. However, this has never been tested for old and real-life single-event trauma, nor in the perinatal context. This translational proof-of-principle study aimed at testing the efficacy of a single-session behavioural intervention, based on memory reconsolidation processes, to reduce CB-PTSD symptoms, particularly CB-ITM.

Methods: In this single group pre-post study, 18 mothers suffering from CB-ITM received a behavioural intervention consisting of a combination of the traumatic childbirth evocation with a visuospatial task assumed to interfere with childbirth memory reconsolidation. Mothers daily reported their CB-ITM during the two weeks before the intervention (diary 1), the two weeks after (diary 2), and the 5th and 6th weeks post-intervention (diary 3). CB-PTSD symptoms were assessed with the PCL-5 just before and one month after the intervention.

Outcome: There were fewer CB-ITM in diary 2 (post-intervention), compared to diary 1 (pre-intervention). The changes were durable, given that the number of CB-ITM did not differ between diary 2 and 3. CB-PTSD symptoms were also significantly reduced at one month post-intervention. All effect sizes were large. Participants rated the intervention as highly acceptable.

Conclusion: This innovative single-session behavioural intervention seems promising, thus justifying the launch of a large randomized controlled trial.

Maternal Mental and Metabolic health during the perinatal period

Leah Gilbert[1], Jardena Puder[1], Antje Horsch[2,3]

[1]Obstetric service, Woman-Mother-Child Department, Lausanne University Hospital, Avenue Pierre-Decker 2, 1011 Lausanne, Switzerland; [2]Institute of Higher Education and Research in Healthcare (IUFRS), University of Lausanne, Route de la Corniche 10, 1010 Lausanne, Switzerland; [3]Neonatology Service, Woman-Mother-Child Department, Lausanne University Hospital, Avenue Pierre-Decker 2, 1011 Lausanne, Switzerland; leah.gilbert@chuv.ch

Introduction

Mental health is poorer in women with gestational diabetes mellitus (GDM) and may influence lifestyle behavior, weight and glycemic control. This thesis presents the results of a literature review and two prospective cohort studies that investigated how mental health and GDM influence one another.

Methods

The literature review was integrative and thus terms corresponding to domains of interest were researched. Concerning the observational studies, the cohort consisted of women diagnosed with GDM attending a Swiss University Hospital. The World Health Organization Well-being Index and the Edinburgh Postnatal Depression Scale were completed during and after pregnancy. Medical therapy intake and weight were extracted from participants' medical records.

Outcomes

The integrative review showed that in women with GDM, psychosocial well-being was associated with diet, as well as with physical activity. In these women, intervention studies always included diet and physical activity interventions, although none integrated psychosocial well-being in the intervention. These lifestyle interventions mostly led to improvements in lifestyle behavior, metabolic, and birth outcomes. The two prospective cohort studies showed an inverse relationship between depression and weight gain in GDM pregnancies and that mental health did not predict the need for medical therapy nor did medical therapy worsen mental health outcomes.

Conclusion

Mental health is still understudied in relation to GDM, although it is related to important outcomes, such as adherence to lifestyle interventions, weight and medication. Women with GDM and depressive symptoms should be screened and their benefit from psychological interventions could have wide implications.

Validation of the French version of the City Birth Trauma Scale and its psychometric properties

Vania Sandoz[1], Coraline Hingray[2], Suzannah Stuijfzand[1], Alain Lacroix[1], El Hage Wissam[3,4], Antje Horsch[1,5]

[1]Institute of Higher Education and Research in Healthcare, University of Lausanne, Switzerland; [2]Pôle Hospitalo-Universitaire de Psychiatrie d'Adultes du Grand Nancy, Centre Psychothérapique de Nancy, Laxou, France; [3]CHRU de Tours, Centre Régional de Psychotraumatologie CVL, Tours, France; [4]UMR 1253, iBrain, Université de Tours, Inserm, Tours, France; [5]Department Woman-Mother-Child, Lausanne University Hospital, Switzerland; vania.sandoz@chuv.ch

Aims: This study first aimed to validate the French version of the City Birth Trauma Scale (City BiTS-F), recently developed to assess childbirth-related posttraumatic stress disorder (CB-PTSD) symptoms, and secondly to determine CB-PTSD latent factor structure.

Methods: French-speaking mothers of a 1-to-12-month old (n = 541) participated in this online cross-sectional survey, with the following standardised self-report questionnaires: the City BiTS-F, the PTSD Checklist, the Edinburgh Postnatal Depression Scale, and the anxiety subscale of the Hospital Anxiety and Depression Scale. Medical and sociodemographic data were also collected.

Results: The bifactor model, with a general factor and the birth-related symptoms (BRS) and general symptoms (GS) subscales, fitted best the data. This confirms that using the total score in addition to the BRS and GS scores is warranted. Good convergent and divergent validity and high reliability (α = .88 to .90) were observed. Moreover, weeks of gestation, gravidity, history of traumatic childbirth and event, and mode of delivery were used to calculate discriminant validity.

Discussion: CB-PTSD can be measured by both the total score and the BRS and GS subscales scores. Women having a history of traumatic event or childbirth scored higher on the total and subscale scores compared to mothers without such trauma exposure. Emergency caesarian section resulted in higher total or subscale scores compared to other modes of delivery. Associations between gravidity and total and GS scores were obtained. The City BiTS-F is a reliable and valid CB-PTSD symptoms assessment for French-speaking mothers for clinical and research purposes.

Infants' vagal response to 3-months-old mother-infant-father interactions: The role of stressful interactional events

Nilo Puglisi[1], Hervé Tissot[1], Valentine Rattaz[1], Nicolas Favez[1], Chantal Razurel[2], Manuella Epiney[3]

[1]Faculty of Psychology and Educational Sciences, University of Geneva, Geneva, Switzerland; [2]Department of Midwifery, University of Applied Sciences Western Switzerland, Geneva, Switzerland; [3]Department of Women-Children-Teenagers, University of Geneva Hospitals, Geneva, Switzerland; Nilo.Puglisi@unige.ch

BACKGROUND: Stressful interactional events (SIE) during early interactions affect infant vagal regulation. However, evidence in the field comes primarily from dyadic interactions. In this study, we investigate the infant's vagal responses to SIE during mother-father-infant interactions.

HYPOTHESES: We hypothesize a link between (1) SIE and vagal response; and (2) the evolution of SIE and infant's vagal response throughout interactions.

METHODS: 63 3-months-old infant-parents interactions were videotaped in a standardized laboratory situation (Lausanne Trilogue Play). Infants' measure of vagus-mediated heart rate variability (RMSSD) has been obtained by measuring their ECG during the interactions. Quantitative observational coding system was used for stressful interactional events during videotaped interactions; stressful events were coded every 5 seconds.

RESULTS: We used growth curve models (GCM) to investigate the evolution of SIE and RMSSD throughout the task, modeling what is stable (i.e. the Intercept factor) and what changes (i.e. the Slope factor) in both variables throughout the task. Results that SIE tended to increase, while infants' RMSSD tended to decrease throughout the task. They also showed that both Intercept factors of RMSSD and SIE were significantly and negatively correlated, which meant that a higher number of SIE was linked with more physiological stress in the infant. On the other hand, changes in SIE and RMSSD were not significantly correlated.

DISCUSSION: We could tentatively speculate that (1) on average when SIE increase, vagal response decrease; and that (2) the SIE and vagal response evolution throughout the task are not correlated. Limits and future perspectives will be discussed.

Unplanned Post-Discharge Healthcare Utilization and Family Perceptions of Continuity of Care During the Transition from a Neonatal Intensive Care Unit to home

Amandine Pereira Enes[1,2], Anne-Sylvie Ramelet[2,3]

[1]Clinic of Neonatology, Lausanne University Hospital (CHUV); [2]Department Woman-Mother-Child, Lausanne University Hospital (CHUV); [3]Institute of Higher Education and Research in Healthcare, University of Lausanne; amandine.pereira@chuv.ch

Introduction

Neonatal hospitalizations are a source of stress and anxiety for families, including at discharge. The return home is a particularly stressful time for families who are confronted with difficulties that can lead to unplanned use of healthcare services. The aim of this study was to describe the association between family perceptions of continuity of care during the transition home and unplanned use of health care services.

Methods

This correlational descriptive study took place in a tertiary-level NICU in Switzerland. A convenience sample of families of neonates hospitalized in neonatology completed two validated questionnaires: perception of continuity of care (PCCQ-Short), and unplanned use of health services 48 hours before discharge and 28 days after discharge from the neonatal unit.

Outcome

Out of the 76 participants (54 mothers, 21 fathers and 1 mother's partner), all had a positive perception of continuity of care before and after discharge. The majority felt adequately prepared for the transition to home. Twenty-eight days after discharge, 56.9% of families had made some unplanned use of health services. There was no significant association between perception of continuity of care during the transition home and unplanned use of health services. There was no association between sociodemographic data and the six categories of the PCCQ-Short, but there is evidence that a short hospital stay may be associated with higher health care utilization.

Conclusion

The majority of families felt prepared to return home and reported a positive perception of continuity of care, yet more than half of the families had some unplanned use of health services, especially those with short hospital stays.

L'expérience et l'implication paternelles avant, pendant et après la naissance: quel impact pour la promotion de la santé? Etude qualitative auprès de pères en Suisse romande

Yvonne Meyer[1], Gilles Crettenand[2]

[1]HESAV, School of Health Sciences, Lausanne, Switzerland; [2]maenner.ch, Organization of Men and Fathers in Switzerland; yvonne.meyer@hesav.ch

Introduction: The role of the father around birth and its impact on health promotion is under-researched. The purpose of this study was to explore the paternal experience and involvement with mother and child. Material and method: Eighteen interviews with (future) fathers in French-speaking Switzerland and a thematic content analysis were carried out, supported by the theories of emotions Results: A main theme, the father in all states of mind, covers three phenomena of becoming a father: First, fathers experience transient physiological reactions due to emotions, especially joy and fear, at all perinatal periods. Second, a primary self-evaluation follows to cope with the loss of bearings amplified by negative emotions. Third, mobilization of resources and creation of supportive activity culminate. Discussion and Conclusion: The three phenomena illuminate a cascading mechanism that empowers fathers to adapt, and meet the needs of their families. This mechanism is favored by practices where the father is a full member of the father-mother-child triad. These results open up interesting perspectives for midwives, nurses and those working in perinatal care.

Physical and Emotional Symptoms of Onset of Labour

Susanne Grylka, Antonia Mueller

ZHAW Zurich University of Applied Sciences, Switzerland; susanne.grylka@zhaw.ch

Introduction: Pregnant women experience onset of labour with various physical and emotional symptoms and cope with them differently. More knowledge about the symptoms of onset of labour is necessary to improve care at the beginning of birth.

Methods: In preparation for the development of a standardised questionnaire we conducted an extensive scoping review and four focus group discussions to inform the decision whether primiparous women should be admitted or not to the hospital. We applied a sensitive literature search strategy including the search components ‘pregnant women/parturients’, ‘physical and/or emotional symptoms’, ‘care/support needs’ and ‘onset of labour’. Women who had given birth to their first child during the last six months could participate in the focus group discussions. Interviews were transcribed verbatim and analysed using qualitative content analysis.

Outcome: Preliminary results showed that regular and irregular contractions were the most frequent physical symptoms of onset of labour. Further physical signs such as watery, mucous and bloody discharges as well as gastro-intestinal discomfort and sleep alterations were observed. Emotional symptoms of onset of labour covered a wide spectrum from joy and happiness to worries and fears. Women in the focus group discussions described emotional changes from restlessness to joy once labour started, but also from worries to anxiety. Great uncertainty prevented women at the beginning of birth from staying at home.

Conclusion: The various symptoms of onset of labour showed its individual character. The correct assessment of these signs, especially the emotional ones, is crucial to individualise care and meet women’s needs.

Attendance Of Antenatal Classes Is Not Associated With Better Childbirth Experience

Valerie Avignon

CHUV, Switzerland; valerie.avignon@chuv.ch

Introduction: Antenatal Classes Has Evolved Considerably. It, Now, Takes Into Consideration, Among Other Things, The Birth Plan Of Parents. Respecting The Birth Plan Normally Results In A Better Childbirth Experience, An Important Risk Factor Of Post-Traumatic Stress Disorder Following Childbirth. Antenatal Classes May Influence Post-Traumatic Stress Disorder Following Childbirth But Requires A Local Evaluation Because Of Differences In Content And Methods Among Studies.

Methods: A Cross-Sectional Study Was Conducted In Lausanne. Full-Age Primiparous, Who Gave Birth To A Single Life Term From 2018 To 2020 Were Invited To Answer A Self-Reported Questionnaire. Data Will Be Compared Between The Groups: Antenatal Classes Versus No Antenatal Classes Attendance.

Outcomes: Self-Reported Questionnaire contained Childbirth Experience Questionnaire (CEQ-2), PCL-5, Major Life Events Questionnaire and Demographic Data. Obstetrical and Neonatal Outcomes Were Extracted From Medical Files.

Results: 794 Women Answered The Questionnaire (Response Rate 27.6%). Analyses Show A Poorer Birth Experience Among Women Who Participated In Antenatal Classes. Significant Predictors Of Childbirth Experience Remain Induction Of Labor, Use Of Forceps, Emergency Caesarean And Civil Status.

Antenatal Classes Don't Affect Obstetrical And Neonatal Variables.

Intrusion Symptoms Are More Frequent In Among Women Who Did Not Attend Antenatal Classes. Antenatal Classes Attendance Remain A Significant Predictor Of PCL-5 Intrusion Score.

Antenatal Classes Have A Protective Effect Against Intrusion Symptoms But The At-Risk Population With Low Level Of Education Often Do Not Participate. Birth Experience In The Antenatal Class Attendance Group Raises Questions About The Content Of Antenatal Classes.

A systemic perception on mental health in early childhood and the benefits of the early inclusion of the whole family

Fabienne Meier[1], Stadelmann Céline[2], Bodenmann Guy[2]

[1]Psychiatry of Northern St. Gallen, Outpatient Clinic Wil, Gynecopsychiatry; [2]University of Zurich, Department of Psychology, Clinical Psychology for Children/Adolescents and Couples/Families; Fabienne.Meier@psgn.ch

Background: Early childhood development is highly dependent on parental mental health. The transition to parenthood is a sensitive period for the mental health of either parent. Most parents report increased distress. One in five parents report clinically relevant levels of depressive symptoms. Parental depressive symptoms are a risk factor for behavioural problems in children from early childhood to adulthood. Furthermore, depressive symptoms are interrelated between parents. Nonetheless, researchers and practitioners working on mental health in early childhood rarely include the whole family.

Methods: We examined depressive symptoms of 303 mixed-gender couples (n = 606 individuals) in the transition to parenthood on five measurement points from the third trimester to 40 weeks postpartum. Self-reported depressive symptoms were associated with infant regulatory behaviour using Multilevel Modelling.

Results: In the relatively well-educated sample, between 10% and 30% of first-time parents exceeded the cut-off for mild depressive symptomatology on the Depression-Anxiety-Stress Scale. Over time, men's depressive symptoms remained constant. Women showed an increase after birth. Fourteen weeks after birth, women's depressive symptoms were below baseline, and 40 weeks after birth, men showed higher depressive symptomatology than women did. Depressive symptoms in parents related to regulation problems in the child.

Discussion: These findings underscore the burden of depressive disorders on the entire family in the transition to parenthood. The author will discuss potential risk and protective factors. She will embed the clinical implications in her experience as a psychologist in providing information on mental health and conversation trainings to other health care providers.

Organizing committee:

Prof. Antje Horsch
Prof. Anne-Sylvie Ramelet
Dr. Oguz Omay
Dr. Georgios Schoretsanitis
Sani Livia
Maxime Haubry
Dr. Giancarlo Natalucci
Prof. Jessica Pehle-Milde
Sophie Desreumaux
Dr. Lamyae Benzakour
Noémie Faure-Nguyen