



3rd Annual Meeting & Pre-Conference

November 23 and 24, 2021

#comebackstronger


Abstract book

Swiss Society for Early Childhood Research

Contact

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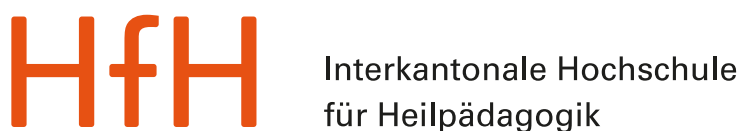
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Program overview

Tuesday, 23rd November 2021 | Parallelsessions

10:00am - 1:30pm	Junior Researcher Network
Aula 100	Pre-Conference for Juniors at the SSECR Annual Meeting
1:30pm - 1:40pm	Alliance Enfance Welcome
Room 251 252	Knowledge Transfer in Early Childhood: How Research, Practice and Politics Can Mobilize Knowledge Together
1:30pm - 1:45pm	Welcome by Prof. Dr. Antje Horsch
Aula 100	First Perinatal Research SIG Symposium
1:40pm - 3:10pm	Alliance Enfance - Part 1
Room 251 252	Insight into research topics and projects: Three input presentations from research and discussion
1:45pm - 2:15pm	Perinatal Research SIG - Keynote by Dr. Alain Gregoire
Aula 100	Why does maternal mental health matter for research and the society as a whole?
2:15pm - 2:45pm	Perinatal Research SIG - Keynote by Prof Dr. Jessica Pehle-Milde
Aula 100	It does matter how we are born: Using the Quality Maternal and Newborn Care Framework to improve maternal and child health in Switzerland
2:45pm - 3:00pm	Break
Foyer 1 & 2	
3:00pm - 4:30pm	Perinatal Research SIG - Oral Presentations
Aula 100	First Perinatal Research SIG Symposium: "Collaborate for high quality perinatal care"
3:10pm - 3:25pm	Break
Room 251 252	
3:25pm - 4:15pm	Alliance Enfance - Part 2
Room 251 252	Expectations of practice from research - research questions, participation, information: with inputs from administrators and practitioners and discussion groups with researchers
4:15pm - 4:30pm	Break
Room 251 252	
4:30pm - 5:00pm	Alliance Enfance - Part 3
Room 251 252	Future collaboration between research, practice and authorities: Discussion and panel
4:30pm - 5:00pm	Perinatal Research SIG - Round table
Aula 100	How to overcome the challenges of interprofessional collaboration to advance science and quality perinatal care

Tuesday, 23rd November 2021 | Evening

5:00pm - 6:00pm	Apéro riche
Foyer 1 & 2	
6:00pm - 6:45pm	Keynote by <u>Prof. Dr. med. Oskar Jenni</u>
Room 251 252	Jedes Kind ist anders: Variabilität als Chance und Herausforderung
6:45pm - 7:00pm	Break
Foyer 1 & 2	
7:00pm - 8:00pm	Roundtable Discussion with <u>Flavia Wasserfallen, Simon Sommer, Benjamin Roduit and Andrea Lanfranchi</u>
Room 251 252	Evidence-informed policy - How can we turn research results about children well-being and development into sustainable policy? Moderation: Moritz Daum & Michael von Rhein
8:00pm - 9:00pm	Farewell
Foyer 1 & 2	

Wednesday, 24th November 2021 | Morning

9:30am - 9:45am Room 251 252	Opening remarks by <u>Dr. Patricia Lannen</u> Vice-President of the SSECR
9:45am - 10:30am Room 251 252	Keynote I by <u>Univ.-Prof. Dr.Dr. Lieselotte Ahnert</u> Stress and Stress Reduction in Early Childhood
10:30am - 11:15am Foyer 1 & 2	Morning poster session
11:15am - 11:30am Room 251 252	Oral Session I - <u>Ding cui CAI</u> The experiences of pregnancy and antenatal care services of Chinese migrants in Switzerland: A qualitative study
11:30am - 11:45am Room 251 252	Oral Session II - <u>Camille Deforges</u> Prenatal insomnia and childbirth-related PTSD symptoms: a prospective population-based cohort study
11:45am - 12:00pm Room 251 252	Oral Session III - <u>Laura Bechtiger</u> Maternal Depression and Adolescents' Unhealthy Behaviors
12:00pm - 12:15pm Room 251 252	Oral Session IV - <u>Pascale Seline Ursprung</u> Children with congenital heart disease after open-heart surgery – A survey on developmental follow-up and early interventions
12:15pm - 12:30pm Room 251 252	Oral Session V - <u>Johanna Quiring</u> Shared Reading for Recognition and Participation
12:30pm - 1:30pm Foyer 1 & 2	Lunch

Wednesday, 24th November 2021 | Afternoon

1:30pm - 2:15pm	Keynote II by Prof. Dr. Daniel Schechter
Room 251 252	Interpersonal Violence-Related Psychopathology, Its Impact on Caregiving and Our Potential Impact on Caregiving
2:15pm - 3:00pm	GA: General Assembly
Room 251 252	
3:00pm - 3:45pm	Afternoon poster session
Foyer 1 & 2	
3:45pm - 4:00pm	Oral Session VI - <u>Tilman Reinelt</u>
Room 251 252	Parenting and Early Child Development During the Pandemic: A Diary Study
4:00pm - 4:15pm	Oral Session VII - <u>Salome Kurth</u>
Room 251 252	Exploring a new developmental concept: the sleep-brain-gut axis in infants
4:15pm - 4:30pm	Oral Session VIII - <u>Lisa Wagner</u>
Room 251 252	Which parents use a smartphone-based developmental diary and how? An analysis of the first >3000 children whose parents used the "kleineWeltentdecker App"
4:30pm - 4:45pm	Oral Session IX - <u>Joana Maria Almeida Osório</u>
Room 251 252	A multi-method study of sensory processing in children with ASD, 16p11.2 deletion carriers and typically developing children
4:45pm - 5:00pm	Oral Session X - <u>Alex Neuhauser</u>
Room 251 252	Effects of early intervention in psycho-socially disadvantaged families in the transition to school: Results from the ZEPPELIN study
5:00pm - 5:15pm	Farewell
Room 251 252	

Pre-Conference | Tuesday, 23rd November 2021

For detailed information on sessions from the Junior Network, the Perinatal Special Interest Group and the Alliance Enfance, please refer to the separate programs and the Conference Agenda on [ConfTool](#).

Keynote | 6:00 – 6:45 p.m.

Jedes Kind ist anders: Variabilität als Chance und Herausforderung

Prof. Dr. Oskar Jenni

University Children`s Hospital Zurich

Die Variabilität zwischen Kindern ist außerordentlich groß: in der Motorik, den kognitiven Voraussetzungen und den schulischen Leistungen, aber auch in sozialen und emotionalen Fähigkeiten und im Wunsch nach sozialer Anerkennung. Auch das Bedürfnis nach Zuwendung und Geborgenheit ist unter gleichaltrigen Kindern sehr unterschiedlich. Der Vortrag macht diese grosse Vielfalt von Kindern sichtbar, zeigt die Gründe dafür auf und nennt die Chancen, die daraus entstehen. Der Umgang mit dieser enormen Variabilität stellt im Alltag aber nicht selten eine grosse Herausforderung dar. Der Beitrag zeigt anhand von praktischen Beispielen verschiedene Wege auf, wie eine Passung zwischen den individuellen Eigenheiten eines Kindes und seiner Umwelt erreicht werden kann.

Roundtable Discussion | 7:00 – 8:00 p.m.

Evidence-informed policy - How can we turn research results about children well-being and development into sustainable policy?

Discussant: Flavia Wasserfallen, Simon Sommer, Benjamin Roudit and Andrea Lanfranchi

Moderator: Moritz Daum | University Zurich

Michael von Rhein | University Children`s Hospital

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Wednesday, 24th November 2021

Keynote I | 9:45 – 10:30 a.m.

Stress and Stress Reduction in Early Childhood

Univ.-Prof. Dr. Dr. Lieselotte Ahnert

Free University of Berlin

Because of recent evolution of non-invasive measures for stress, research has revealed substantial insights into the human stress system, over the last two decades, even in early childhood. The paper aims to portray the today's knowledge on how children proceed stress and what circumstances help them to hold stress in check. We provide outcomes from several own studies which explored children's stress activities in different care contexts. A care ecology which consists of shared contexts where children experience care at home and in out-of-home facilities appeared to challenge the stress system especially in infants and toddlers.

Keynote II | 1:30 – 2:15 p.m.

Interpersonal Violence-Related Psychopathology, Its Impact on Caregiving and Our Potential Impact on Caregiving: Application of Prospective, Longitudinal Data towards Early Intervention

Prof. Dr. Daniel Schechter

Lausanne University Hospital (CHUV)

Multiple factors interact to affect the caregiving environment: parent(s)-infant genetics, epigenetics, development, physical and mental health, external stressors, and relationships and related intergenerational patterns. Some factors we can affect via intervention, and others, not. One important function of sensitive caregiving that is a candidate for intervention is engagement during formative child development in mutual regulation of emotion and arousal, so that the infant can internalize and elaborate this early experience towards the development of self-regulation as he matures in the 4th to 5th year of life. Accumulating evidence that parental, particularly interpersonal violence (IPV) related maternal psychopathology, have been found to adversely impact caregiving behavior in ways that interfere with maternal capacity to engage in mutual regulation. IPV comprises physical and sexual abuse, and domestic violence exposure and victimization. Today's keynote will offer a particular focus on original prospective, longitudinal data of mothers with IPV-PTSD and comorbid psychopathology, along with their children from the age of 1-3 years through 5-9 years. Maternal IPV-PTSD associated hypothalamic-pituitary adrenal (HPA) axis dysregulation and cortico-limbic dysregulation with decreased medial prefrontal cortical activity in response to stress and concomitant decreased maternal capacity for reflective functioning, translates into altered child HPA-axis dysregulation and cortico-limbic dysregulation persisting into school-age and associated child psychopathology namely PTSD. Based on this original research and an experimental intervention that involves clinician assisted video-feedback exposure and support and modeling of maternal reflective functioning, we have developed a 16-session manualized intervention CAVEAT that awaits validation and controlled trials. Perhaps such an intervention can contribute to the interruption of intergenerational transmission by bolstering maternal capacity to engage in mutual emotion regulation. We will end the

plenary by discussion of the trial intervention upon which CAVEAT is based with consideration of possible neurobiological mechanisms that support reconsolidation of child-triggered traumatic memory traces in that model.

Morning poster session | 10:30 – 11:15 a.m. | Poster #1

Geospatial Analysis of Access to Healthcare: Child Development Needs and Available Care in the Canton of Zurich

[Etienne Gruebler](#)^{1,3}, [Oliver Gruebner](#)^{1,2}, [Michael von Rhein](#)^{3,4}

¹University of Zurich, Department of Geography; ²University of Zurich, Epidemiology, Biostatistics, and Prevention Institute; ³University Children's Hospital, Child Development Center; ⁴University of Zurich, Children's Research Center

Developmental delay (DD) is one of the most frequent disorders in early childhood affecting 10-15% of all preschool children. Early identification of children with DD is critical to ensure appropriate therapeutic interventions, to support the families, and finally to prevent chronic, life-long health, educational, and social consequences. It is widely acknowledged that early intervention (EI) programs are both ethically mandatory and cost-effective for a society on a long-term perspective. However, data shows that many cases are missed in early childhood. Although research has identified potential risk factors for under-utilization of EI, the spatial distribution of children in need, referring doctors, and therapeutic places have been neglected in many research studies so far. Consequently, we do not know much about the spatial variation in EI, and knowledge on potential influencing factors for spatial variation in referral and utilization is lacking. Therefore, we aimed to quantify accessibility of care in the Canton of Zurich, Switzerland.

To do so, a comprehensive data set from all children (age 0-4) admitted to the two Units of Special Needs Education (USNE) in the Canton of Zurich in 2017 (n=1971) was used and analyzed with the Floating Catchment Area (FCA) set of methods. Our results show major differences between rural and urban regions and better accessibility closer to greater therapy institutions. Our findings highlight spatial inequalities between healthcare needs and services. Our research contributes to a better understanding of spatial access to healthcare and informs healthcare policy to help increase accessibility to EI for children with DD.

Morning poster session | 10:30 – 11:15 a.m. | Poster #2

Children with an autism spectrum disorder in the canton of Zurich – Evaluation of daily life, early interventions, and need of support by professionals

[Nadja Katharina Schneider](#), [Michael von Rhein](#), [Oskar Jenni](#), [Christina Schaefer](#)

Universitäts-Kinderspital Zürich, Switzerland

In recent years, the topic of Autism Spectrum Disorder (ASD) received increasing attention in Switzerland and gained additional political relevance through the report on measures to improve the support of people with ASD published by the Federal Council (1). In Switzerland, the prevalence of ASD is estimated to be between 0.6 and 0.8 percent (with an increasing tendency) (2). Parents of children with ASD are often greatly burdened by the intensive and challenging care of their child. Therefore, an early diagnosis associated and initiation of early therapeutic measures is crucial for the development and the quality of life of children with ASD and their families.

However, little is known on the families and perspective regarding early interventions, so far: what specifically are the needs of affected families? Do early special education measures such as special education and speech therapy meet their needs, and how much experience with autistic children do therapists in these two disciplines have, considering the increased need for autism-specific interventions? Based on a central register of all children registered for special needs education before kindergarten entry, we conducted a survey of 57 affected families to investigate everyday life, early intervention and the need for further support.

In addition to the question of a possible imbalance between supply and demand for these therapies, the need and experiences of the parents are being assessed in a sequential-explanative mixed method design, and compared to the perspective of special education teachers working with affected children.

Data collection and interviews have been completed already. The presentation will provide an overview over the most important findings of this comprehensive study.

Morning poster session | 10:30 – 11:15 a.m. | Poster #3

Dyadic coping and coparenting among couples after their child's recent autism diagnosis

[Naomi Downes](#), [Emilie Cappe](#)

Université de Paris, France

Background: After a diagnosis of autism, parents' stress levels can be heightened while they adapt their co-parenting relationship to meet the specific needs of their child. To date, no studies have explored dyadic coping: how couples cope together to face the stress experienced at this time. Yet, research has recognized the couples and relationship as being a primary source of support for parents. A better understanding of how parents adapt together is needed to provide better support for families from the earliest age of their child.

Objectives: The aim of this research project was to explore how parents use their relationship as a support system, to face any stress generated by having a child on the autism spectrum and to work as a team to raise their child.

Methods: Overall, 70 couples were recruited 1 to 36 months after their child's autism diagnosis via four specialized autism screening centers in France. Couples were eligible if they were cohabiting and if their child was aged between 24 months to 6 years 11 months old at the time of diagnosis. Each partner completed the same questionnaires to assess stress appraisals (ALES-vf), parenting sense of competence (QACEP), dyadic coping (DCI), their co-parenting relationship (PAI), as well as socio-demographic information.

Results: Questionnaire data was analyzed using the Actor-Partner Interdependence Model (APIM): a model for conducting dyadic statistical analyzes. Results showed dyadic coping and parents' sense of competence were related to parents and own level of co-parenting. Partner effects were also observed: mothers and positive dyadic coping increased fathers and perceptions of a high-quality co-parenting relationship. While a better sense of parenting competence among fathers was associated to a higher level of co-parenting relationship quality among mothers.

Conclusion: This research emphasizes the need to further understand how parents' function and adapt after their child has been diagnosed with autism.

Morning poster session | 10:30 – 11:15 a.m. | Poster #4

The mediating role of early regulatory problems in infancy on the relation of early life stress with preschoolers' behavioral problems

[Nadine Messerli-Bürgy](#)¹, [Jan-Philip Knirsch](#)¹, [Andrea H. Meyer](#)^{2,3}, [Tanja H. Kakebeeke](#)^{4,5}, [Kerstin Stülb](#)², [Amar Arhab](#)⁶, [Annina E. Zysset](#)⁴, [Claudia S. Leeger-Aschmann](#)⁷, [Einat A. Schmutz](#)⁷, [Silvia Schneider](#)⁸, [Susi Kriemler](#)⁷, [Oskar G. Jenni](#)^{4,5}, [Jardena J. Puder](#)⁶, [Simone Munsch](#)²

¹Department of Psychology, University of Fribourg, Switzerland; ²Department of Clinical Psychology and Psychotherapy, University of Fribourg, Switzerland; ³Department for Psychology, University of Basel, Switzerland; ⁴Child Development Center, University Children's Hospital Zurich, Switzerland; ⁵Children's Research Center, University Children's Hospital Zurich, Switzerland; ⁶Obstetric Service, Department Women-Mother-Child, Lausanne University Hospital, Switzerland; ⁷Epidemiology, Biostatistics and Prevention Institute,

University of Zurich, Switzerland; ⁸Faculty of Psychology, Clinical Child and Adolescent Psychology, Ruhr-University Bochum, Germany

Early regulatory problems (ERP) include crying, feeding and sleeping problems during infancy and are thought to be related to early life stress (ELS) and the later development of behavioral problems at preschool age. The aim of the study was to assess the mediating role of ERP in preschoolers. Parents of 555 healthy children (aged 2–6 yrs) of the Swiss Preschooler's Health Study (registered as ISRCTN41045021; date 21.03.2014) were asked to retrospectively complete questions on their child's ERP during infancy, on ELS of their child, and on current behavioral problems of their child. A structural equation model revealed that ELS on the hyperactivity-inattention was mediated through ERP ($b=0.022$, C.I.=0.006/0.050, $\beta=0.093$), and accounted for a large proportion (76%) of the total effect ($b=0.029$, C.I.=−0.025/0.103, $\beta=0.126$), while the direct effect was comparably small ($b=0.008$, C.I.=−0.058/.073, $\beta=0.033$). ELS has a short-term impact on psychopathology in infancy, but these psychopathologic patterns may persist over several years.

Morning poster session | 10:30 – 11:15 a.m. | Poster #5

Association between child self-regulation and parental factors in preschoolers with special education needs

[Lotta Balters¹](#), [Simone Keßel¹](#), [Laurence Nawab¹](#), [Helen Hegerath¹](#), [Christa Grüber-Stankowski²](#), [Charlotte Hanisch¹](#)

¹Universität zu Köln, Germany; ²Zentrum für Frühbehandlung und Frühförderung e.V. Köln, Germany

The multidimensional construct of school readiness is considered to be an important indicator for early and later academic success. In addition to early academic ability (e.g. early knowledge of letters and numbers or oral speech), research has focused on self-regulation as the key element linked to school readiness (Blair & Raver, 2015; Roebers & Hasselhorn, 2018).

The impact of parental factors such as parenting behavior, socioeconomic status, stress or mental health on the development of children's self-regulation has been highlighted in numerous studies (Blair & Raver, 2015; OECD, 2020; Rademacher & Koglin, 2020). However, for the group of children with early intervention needs, who are at particular risk for academic failure, little is known about the influence of these variables.

The aim of this study is to show correlations between parental factors and self-regulation abilities of children with early intervention needs.

For this purpose, parents of 274 pre-school children with early intervention needs ($M=5.97$, $SD=0.38$, 193 boys) reported on their children's self-regulation abilities as well as on their parenting behavior, stress, mental health, sense of coherence and parental attributions.

Preliminary analysis in a subsample showed significant correlations between negative parenting behavior ($r = .399$; $\beta = .295$, $p = .002$), as the strongest predictor, as well as parental sense of coherence ($r = -.360$; $\beta = -.227$; $p = .015$) and child self-regulation. In addition, correlations with migratory background and first language became identifiable. The presentation will report the results of the complete sample.

Findings highlight the importance of parental influence on the development of self-regulation of children with early intervention needs. The involvement of the parents in early intervention approaches should therefore aim to provide a better understanding of the child's developmental prerequisites and to align parenting strategies accordingly.

Morning poster session | 10:30 – 11:15 a.m. | Poster #6

Testing a single-session behavioral intervention to reduce intrusive traumatic memories and PTSD symptoms after childbirth: a proof-of-principle study

[Camille Deforges](#)¹, [Deborah Fort](#)¹, [Suzannah Stuijtzand](#)¹, [Emily Holmes](#)², [Antje Horsch](#)^{1,3}

¹Institute of Higher Education and Research in Healthcare, University of Lausanne, Switzerland; ²Department of Psychology, Uppsala University, Sweden; ³Woman-Mother-Child Department, Lausanne University Hospital, Lausanne, Switzerland

Background and aim: 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 behavioral intervention, based on memory reconsolidation processes, to reduce CB-PTSD symptoms, particularly ITM.

Methods: In this single case experimental study, 18 mothers suffering from CB-ITM received a behavioral 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 5- and 6-weeks post-intervention (diary 3). CB-PTSD symptoms were assessed with the PCL-5 just before and one month after the intervention.

Results: 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.

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

Morning poster session | 10:30 – 11:15 a.m. | Poster #7

If I could build... Empowering the voices of children with disabilities in playground planning

[Ines Wenger](#)^{1,2,3}, [Thomas Morgenthaler](#)^{2,3,4}, [Christina Schulze](#)²

¹Luleå University of Technology; ²Zurich University of Applied Sciences; ³University College Cork; ⁴Queen Margaret University

Background: Children with and without disabilities consider playgrounds as significant places in their life, which offer opportunities for play and social interactions. Playgrounds are especially important in times when opportunities to meet are restricted, for example, due to the Covid-19 pandemic. Even though the primary purpose of playgrounds is to be a place for children to play, playground design is mainly determined by adults. Children's voices regarding their use of playgrounds, and their wishes and needs to enhance participation on playgrounds are seldom addressed. In particular perspectives of children with disabilities are often absent. The aim of this presentation is to give insight into how the perspectives of children with disabilities may contribute to playground design.

Method: The presentation draws on an international project that explores children's perspectives through literature reviews and semi-structured interviews.

Results: Children make important contributions to playground design. For example, children with disabilities show a unique understanding of their own situation and propose inclusive playground adjustments. Their

unique perspectives on play could help playground providers to adapt playgrounds to their needs and wishes to ensure participation in play including opportunities for social interactions and challenges according to their abilities.

Discussion: Children are the main user group of playgrounds. Child-focused participatory methods that include children with different abilities and a variety of needs and backgrounds should be included in processes of playground planning, evaluating, and monitoring to enhance playground design.

This project has received funding from the European Union & Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 861257.

Morning poster session | 10:30 – 11:15 a.m. | Poster #8

The influence of maternal intuitive eating and depression in pregnancy on early postpartum infant anthropometry in a population with gestational diabetes mellitus

[Leah Gilbert](#)¹, [Jardena Puder](#)¹, [Antje Horsch](#)^{2,3}

¹Obstetric service, Department Woman-Mother-Child, Lausanne University Hospital, Avenue Pierre-Decker 2, 1011 Lausanne, Switzerland; ²Institute of Higher Education and Research in Healthcare (IUFERS), University of Lausanne, Route de la Corniche 10, 1010 Lausanne, Switzerland; ³Neonatology Service, Department Woman-Mother-Child, Lausanne University Hospital, Avenue Pierre-Decker 2, 1011 Lausanne, Switzerland

Background and aims

Infants born to mothers with gestational diabetes mellitus (GDM) have a higher risk of obesity over their lifespan, compared to infants born to mothers without GDM. Yet, the contributing maternal behavioral and psychological mechanisms associated with this obesity risk remain obscure. Women with GDM have a three-fold higher risk of depression in comparison to women with no GDM during pregnancy. Depression has been associated to lower intuitive eating in the general population. Lower intuitive eating in pregnancy may lead to higher anthropometric outcomes in infants. This study aimed to 1) investigate the association between intuitive eating and depression symptoms in GDM pregnancy, 2) determine if maternal intuitive eating during GDM pregnancy was associated with infant anthropometric outcomes in the early postpartum, and 3) investigate if maternal depression moderated the described associations in 2.

Methods

The study sample consisted of women diagnosed with GDM between 24 and 32 weeks of gestation who participated in the “MySweetheart” trial at a Swiss university hospital. To measure maternal intuitive eating, an adapted Intuitive Eating Scale and 2 (IES-2) was used. Depressive symptoms were measured using the Edinburgh Postnatal Depression Scale (EPDS). Infant anthropometric outcomes were height, weight, z-scores, percentiles, the sum of four skinfolds (biceps, triceps, subscapular, iliac), and total body fat.

Results

The data is currently being processed and results will be presented at the conference.

Discussion

This study will help to identify the maternal behavioral and psychological pathways that may increase the risk of obesity in infants of mothers with GDM, thus allowing us to identify potential treatment targets.

Morning poster session | 10:30 – 11:15 a.m. | Poster #9

Early childhood care and education professionals’ views on the inclusion of children with disability: A mixed-method study on attitudes and self-efficacy

[Matthias Lütolf](#), [Simone Schaub](#)

In Switzerland, the UN Conventions on the Rights of the Child (ratified in 1997) and on the Rights of Persons with Disabilities (ratified in 2014) grant children with disability equal access to education and social integration. Accordingly, efforts to include children with disability in early childhood education and care (ECEC) have increased in recent years. For inclusion to succeed, ECEC professionals' views on inclusive care and education are critical. This study used a mixed-method design to assess the views on inclusion of ECEC professionals in Zurich day-care centers. 119 participants completed a questionnaire on their attitudes towards inclusion and their self-efficacy towards inclusive practices. Based on the quantitative findings, six problem-centered interviews with ECEC professionals were conducted. Taken together, results show that ECEC professionals held positive views on inclusion, which were strongly associated with current professional experiences with inclusion. Compared to attitudes, self-efficacy was experienced as lower. Especially regarding the inclusion of children with complex and high needs, ECEC professionals were less confident in their own abilities.

Morning poster session | 10:30 – 11:15 a.m. | Poster #10

Developmental and mental health care involved in early childhood placement in Switzerland: Facts and considerations to promote fragile infant mental health

[Maria Mögel Wessely](#), [Oskar G. Jenni](#), [Ruth Etter](#)

Child Development Center (Abteilung Entwicklungspädiatrie) University Children's Hospital Zürich

In Switzerland, there are currently no figures on the extent or outcome of early placement or adoption. Research documents very well, however, that infants and toddlers receive less regular pediatric well-child visits and necessary remedial education than children in traditional families, even though these children are removed from their parents and placed specifically because their development was at considerable risk and often already during pregnancy. Before the effects of a stable and responsive new environment can act, placement processes may cause great stress on the still-developing psychological organization of such young children. However, early signs of stress or trauma in this vulnerable group receive still little attention; although they often quickly strain the relationship between the children and their new caregivers and jeopardize sometimes the stability of the placement. Thus these children should receive early developmental pediatric follow-up and screening for mental health problems at the beginning of placements and close follow-up examinations thereafter, as recommended, for example, by the American Academy of Pediatrics. Based on case series from a Swiss study as well as on the current practice of developmental pediatrics and psychotherapists, reflections will be made on the content-related elements of such practice and its interdisciplinary anchoring in placement procedures.

Morning poster session | 10:30 – 11:15 a.m. | Poster #11

Neonatal care delivery for low birth weight infants in the context of continuum of care in Ghana

[Christina Schuler](#)¹, [George Edward Ntow](#)², [Faith Agbozo](#)³, [Veronika Waldboth](#)¹

¹Zurich University of Applied Sciences (ZHAW), School of Health Professions, Institute of Nursing, Winterthur, Switzerland; ²Dodowa Health Research Centre, Dodowa, Ghana; ³University of Health and Allied Sciences (UHAS), School of Public Health, Department of Family & Community Health, Ho, Ghana

Introduction and Aims: Effectively coordinated care linkages have high tendency of minimising adverse events associated with low birth weight (LBW) infants. In Ghana, however, linkages across health settings and family support structures are not clearly laid-out. This study elicited the continuum of care for LBW infants to understand how linkages can be strengthened to optimise quality of care.

Methods: This study adopted a constructivist grounded theory design. Data collection took place in a municipality in Ghana between 2020 - 2021 with families, health professionals and managers providing care in clinical and community-based facilities. Audio recorded in-depth interviews were analysed using initial and focused coding, constant comparative analysis, theoretical memos, and diagramming until theoretical sufficiency was determined.

Results: Analysis of 25 interviews generated an interpretive theory showing that referral, discharge, and review processes were not systematically planned and documented. Neonatal care knowledge was lacking due to insufficient investments in coordination and trainings with awareness creation on newborn health thought to reduce misconceptions. Motivated staff, implementation of care guidelines and staff supervision were identified as enabling factors. Mothers lacked financial and practical support and needed assistance in balancing their hope and confidence and empowerment to care for their LBW infants. To overcome these challenges, early bonding and family involvement were helpful.

Discussion: A coordinated care process, family, and community involvement through adoption of a family system approach is necessary. Implementing guidelines, providing training opportunities, involving stakeholders, and promoting committed leadership can improve quality in the care continuum.

Morning poster session | 10:30 – 11:15 a.m. | Poster #12

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

[Vania Sandoz](#)¹, [Coraline Hingray](#)², [Suzannah Stuijtzand](#)¹, [Alain Lacroix](#)¹, [Wissam El Hage](#)^{3,4}, [Antje Horsch](#)^{1,5}

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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 ($\alpha = .88$ 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.

Morning poster session | 10:30 – 11:15 a.m. | Poster #13

Motor developmental profile as a predictor of social deficit in ASD preschoolers

Vincent Junod, Joana Osorio Almeida, Borja Rodriguez-Herreros, David Romascano, Sonia Richtin, Nadia Chabane, Anne M. Maillard, [Marine Jequier Gygax](#)

Service des Troubles du Spectre de l'Autisme, Lausanne University Hospital, Lausanne, Switzerland

Aims: We aimed at identifying motor atypical development in an ASD preschoolers population (< 5yo), compared it to a control cohort, and decipher whether the motor profile might be a predictor for social functioning.

Method : Participants recruited were between 1 years 9 months and 4 years 11 months old, divided into two groups: 32 children with a diagnosed autism spectrum disorder (ASD) (Mean age=3.33), 3 girls/29 boys, and 24 children with typical development (TD) (Mean age=3.25), 8 girls/16 boys. We used the Peabody Developmental Motor Scale (PDMS-2) to assess the motor level for each group, Autism Diagnostic Observation Schedule (ADOS-2) to assess the symptoms of autism.

Results: We controlled all analyses for gender as well as nonverbal intelligence quotient (NVIQ). The results show lower scores for the ASD group in all motor components, gross motor (GMQ), fine motor (FMQ) and total motor (TMQ). These findings are consistent with the literature on motor development in children with ASD. Moreover, the NVIQ is a predictor of gross motor skills for both ASD and TD groups. Interestingly, motor skills appear to be a predictor of the ADOS-2 social affect (SA) in ASD.

Discussion : This monocentric study shows that motor development is significantly affected early in life in ASD children, and is correlated to the social skills. These results contribute to refine the sensorimotor profile in ASD, underlying the global developmental burden associated with the social cognition deficits.

Morning poster session | 10:30 – 11:15 a.m. | Poster #14

Growing up in institutional care: Risk and protective factors for early development

[Hannah Sand](#)¹, [Heidi Simoni](#)¹, [Oskar G. Jenni](#)², [Patricia Lannen](#)¹

¹Marie Meierhofer Children's Institute, University of Zurich, Zurich, Switzerland; ²Child Development Center, University Children's Hospital Zurich, Zurich, Switzerland

For healthy development, young children need responsive caregivers and a stimulating environment. Children growing up in institutional care may not have these supporting conditions. Due to high child-staff-ratios and strict routines one-to-one interaction is often limited; responding in a sensitive manner to children's emotional needs and exploratory initiatives becomes difficult. Many studies show that institutionalization under such conditions of sensory and emotional deprivation is associated with a significant developmental risk. However, little research exists on which aspects of institutional care cause developmental deficits and which children are particularly vulnerable to negative conditions in the institutions.

To better understand the association of institutionalization and early development, we draw on a historical data set collected in the late 1950s in Switzerland. At that time, Dr. Meierhofer and colleagues assessed the developmental and living conditions of 341 children placed in 12 institutions in Zurich. They showed that the institutionalized children had significant developmental delays compared to family raised children. They

also found significant within-group differences depending on which of the 12 institutions a child was placed in. Because no association with child- or family-related variables could be confirmed, they concluded that the extent of developmental delay was related to the care conditions in the institutions.

To validate this result and to draw more differentiated conclusions about risk and protective factors on individual and institutional level, we have reprocessed and reanalyzed the historical data set using new statistical methods. The results will contribute to better understand the developmental risk of institutionalization.

Morning poster session | 10:30 – 11:15 a.m. | Poster #15

Beyond the technique of calming methods: the role of parental values and parental emotion-regulation in co-regulative processes across the first year of life

[Margarete Bolten](#)¹, [Lukka Popp](#)², [Mitho Müller](#)², [Corinna Reck](#)²

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During the first year of life, infant crying and sleeping problems are common. In early childhood co-regulation is fundamental for infants' adjustment and functioning, especially in babies who cry more and sleep less. Parents use various soothing strategies to calm their baby or to help him to fall asleep. In the present study, we analyse the effectiveness of different calming techniques and assess how parental values and parental emotion-regulation influence co-regulative processes. In particular, the capacity to adjust own emotions may support parental co-regulation.

To address this issue, we currently run an anonymous online study that assesses crying, sleeping and eating behavior in infants aged 0 to 18 months and parental strategies to regulate their child's distress as well as parental strategies to regulate own negative emotions. We hypothesize that more dysfunctional co-regulation strategies will be associated with more sleeping and feeding difficulties and more crying in early childhood, and may be predicted by dysfunctional parental emotion regulation. Furthermore, we are interested in parental values, which are associated with soothing strategies. Our findings will be presented at the conference and could be the basis for family-based prevention programs that may be delivered in community settings.

Oral session I | 11:15 – 11:30 a.m.

The experiences of pregnancy and antenatal care services of Chinese migrants in Switzerland: A qualitative study

Ding cui CAI

University of Lausanne, Switzerland

Background: Differences in pregnancy outcomes according to the mother's origin have been reported in Switzerland, the reproductive health outcomes of foreign women from non-European countries were reported lower than those of European women. The Federal Office of Public Health has called for specific Swiss-wide studies on migrant populations. This study explores the pregnancy and antenatal care experiences of Chinese migrants and with the goal of clarifying their maternity needs.

Methods: In-depth interviews of 14 Chinese mothers and 13 family members were conducted in Chinese or in English. All audio-recordings were transcribed verbatim and Chinese transcripts were translated into English. Thematic analysis employing MAXQDA Analytics Pro 2020 was carried out.

Results: Four main and seven sub-themes regarding the positive and negative experiences were defined. Main themes included being in a new country, pregnancy experience, antenatal care experience, and antenatal mental health issues. Positive experiences included continuity of maternity care, scheduling medical appointments, and privacy respected in the Swiss healthcare system. Negative experiences included lack of support from extended family and community, language barriers for accessing maternity care services and for seeking healthcare information, few job opportunities for Chinese mothers, and social exclusion as well as discrimination, the latter of which was exacerbated during the Covid-19 pandemic.

Discussion: Support from the community for families who experienced pregnancy within a migration context should be systematically provided. Healthcare information for migrants should be provided in their native or a second language to facilitate comprehension of the Swiss healthcare system.

Oral session II | 11:30 – 11:45 a.m.

Prenatal insomnia and childbirth-related PTSD symptoms: a prospective population-based cohort study

[Camille Deforges](#)¹, [Yvonnick Noël](#)², [Malin Eberhard-Gran](#)^{3,4}, [Susan Garthus-Niegel](#)^{5,6,7,9}, [Antje Horsch](#)^{*1,8,9}

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Four to six percent of women develop childbirth-related posttraumatic stress disorder (CB-PTSD). Primary prevention interventions against CB-PTSD are lacking; identifying prenatal risk factors is thus crucial. Prenatal insomnia could be an important risk factor because sleep deprivation may increase distress during childbirth and hinder postpartum recovery. This study aimed to examine the relationship between prenatal insomnia symptoms and CB-PTSD symptoms, whilst taking postnatal insomnia into account.

Methods: In this prospective population-based cohort study of 1,610 pregnant women, insomnia symptoms were measured at 32 weeks of pregnancy with the Bergen Insomnia Scale. CB-PTSD symptoms were

measured at eight weeks postpartum, with the Impact of Event Scale. Postnatal insomnia symptoms, prenatal psychological symptoms (PTSD, depression, anxiety, fear of childbirth), as well as mode of childbirth and subjective birth experience (SBE) were included as covariates in the analyses, which were based on a Piecewise Structural Equation Modelling approach.

Results: Prenatal psychological symptoms were all associated with prenatal insomnia symptoms. Prenatal insomnia predicted CB-PTSD symptoms, and this relationship was mediated by postnatal insomnia symptoms and negative SBE.

Discussion: Prenatal insomnia symptoms may put mothers at risk of a negative SBE, thus suggesting a deleterious impact of prenatal insomnia on the ability to cope with a difficult birth. They also predicted postnatal insomnia, which contributes to CB-PTSD maintenance. Studies investigating the relationship between prenatal insomnia and postnatal mental health should therefore consider postnatal insomnia symptoms, which had not been addressed so far. Both prenatal and postnatal insomnia may be relevant targets for CB-PTSD interventions.

Oral session III | 11:45 – 12:00 p.m.

Maternal Depression and Adolescents' Unhealthy Behaviors

[Laura Bechtiger¹](#), [Annekatri Steinhoff¹](#), [Jessica M. Dollar²](#), [Susan D. Calkins²](#), [Susan P. Keane²](#), [Lenka Shriver²](#), [Laurie Wideman²](#), [Lilly Shanahan¹](#)

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Maternal depression is an established risk factor for children's emotional and behavioral adjustment. Less is known about its association with children's health behavior, even though the family context and parental behaviors are an important socialization context for health behaviors. Mothers suffering from symptoms of depression (e.g., apathy, anhedonia) may be less likely to engage in health-promoting activities for themselves and their child. Adolescence is an important developmental period for establishing positive health behaviors such as an active lifestyle, healthy diet, regular sleep rhythms, and substance use habits. Yet, unhealthy behaviors are highly prevalent during this developmental period. Though some preliminary evidence suggests that maternal depression is associated with their children's health behavior, it is limited to the childhood period and mostly cross-sectional studies. Our study leverages a longitudinal community study ($N=213$) to examine whether maternal depressive symptoms in early childhood (ages 2-5), middle childhood (ages 7-10) and adolescence (age 15) are linked with later self-reported adolescent unhealthy behavior (i.e., low physical activity, sedentary behavior, poor sleep, unhealthy diet, and smoking at ages 16 and 17), and whether there are sex differences in these associations. Preliminary analyses suggest that maternal depression in both middle childhood and adolescence, but not in early childhood, are associated with more adolescent unhealthy behaviors. Associations were stronger for female than male adolescents. Future analyses will consider depressive symptoms of the adolescents to examine whether the association between maternal depression and adolescent unhealthy behavior may be attributed to the intergenerational transmission of depression.

Oral session III | 12:00 – 12:15 p.m.

Children with congenital heart disease after open-heart surgery – A survey on developmental follow-up and early interventions

[Pascale Seline Ursprung¹](#), [Walter Knirsch^{2,3}](#), [Oliver Kretschmar^{2,3}](#), [Bea Latal^{1,3}](#), [Oskar Jenni^{1,3}](#), [Michael Von Rhein^{1,3}](#)

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Background Congenital heart disease (CHD) is the most common birth defect affecting approximately 6-8:1'000 live born children. Swiss recommendations suggest systematic evaluation of development at 1, 2 and 5 years of age after open-heart-surgery during infancy to accompany and consult families, detect developmental delays, and to initiate early interventions. The implementation and parental acceptance of these recommendations has not yet been examined.

Methods Our study includes 175 out of 202 children with CHD (born in 2015/2016) in whom open-heart surgery on cardiopulmonary bypass was performed at the University Children's Hospital Zurich in the first year of life. Exclusion criteria are death (n = 21) and residence abroad (n = 5). Retrospectively, we collected data out of medical reports from 143 children with a CHD and conducted a semi-structured telephone interview with the parents. We conducted 135 telephone interviews and from these, 52 parents filled in a comprehensive survey.

Results Of the 143 participating children (52% male) 56% had a cyanotic CHD. 118 (82%) out of 143 children received at least one follow-up (FU) assessment. In this group 82% of the children received the first FU during their first two years of life. Of those children who received a FU, 49% showed at least one developmental delay and for 40% at least one therapy was initiated. The parental feedback about the FU's was very positive: The FU's were rated helpful in 82%. From the 25 children, who did not have a FU, 16 parents expressed that they were not aware of the necessity of a FU and in 11 cases agreed to come to a FU subsequently.

Conclusion The FU-rate in our study population and the parental satisfaction with the FU's were high. However, some parents were not aware of the potential risk of developmental delays and the possibility of specific FU's. Ways to address the parents are to repeatedly include this information in routine consultations and by contacting them by phone.

Oral session III | 12:15 – 12:30 p.m.

Shared Reading for Recognition and Participation

Johanna Quiring

St.Gallen University of Teacher Education, Switzerland

Recognition is most important for developing a positive sense of self (Honneth 1994). In educational settings, children experience recognition if they are noticed: seen and heard (Reisenauer & Ulsess-Schurd, 2018). Taken to a micro-level and to the context of conversations, findings like these give secours to the demand, that children need the possibility to speak up and voice their own thoughts. This research project aims at exploring how children's communicative participation (Bock, 2018) can be facilitated in early childhood education so that children experience themselves as valued.

To this aim, conversation analysis (Bergmann, 1994) is used to analyze video extracts of shared picture book readings. Four sequences of a kindergarten teacher and three children were selected out of a larger international study (www.sprikid.org). For the analyses, sequences of the recordings were transcribed according to GAT2 standards (Selting et al. 2009). The turn-by-turn analysis allows to elicit how each child is addressed and what reaction follows a child's contribution, resulting in patterns of participation for each participant.

Preliminary results suggest that it is more likely to succeed in valuing each child's contribution during a conversation if the professional does not visibly aim to direct the children's attention to something specific,

but rather lets the children take the lead in expressing their ideas. Also, teachers may support individual children who have not spoken up much e.g., by addressing them directly or repeating statements that otherwise might be overheard by the other participants of the conversation.

Afternoon poster session | 3:00 – 3:45 p.m. | Poster #16

Parental Use of Screen Media to Regulate Toddlers' Negative Emotionality – first data from the Swiss Baby Screen Use Project

[Margarete Bolten](#)¹, [Noortje Vriends](#)², [Alain Di Gallo](#)¹

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In early childhood, children strongly rely on external emotion regulation by care givers to regulate their distress and negative emotions. Although the Swiss Society of Pediatrics (SGP) recommends not to expose toddlers under the age of three, many parents use screen media devices for their young children. Many parents resort to screen media to regulate their toddlers's distress or negative emotions. However, little is known about the long-term implications of using this strategy for children's emotional functioning and behavioral problems. To address this issue, our study examines the association between the use of screen media in early childhood to regulate distress and negative emotions. We also examine whether parents with patterns of dysfunctional emotion regulation are more prone to use this regulatory strategy.

We currently run an anonymous online study via the RedCap platform that assessed overall screen time of children aged 0 to 5 years, families' demographic covariates, parental strategies to regulate toddlers distress and negative emotions, and parental strategies to regulate own negative emotions. We hypothesize that frequent parental use of screen media to regulate toddlers distress is predicted by dysfunctional parental emotion regulation and will also be associated to behavioral difficulties. Our findings will be presented at the conference and should be the basis for family-based prevention programmes that may be delivered in community settings.

Afternoon poster session | 3:00 – 3:45 p.m.. | Poster #17

Pretending to solve an IT problem: Exploring the concept of digital transformation in kindergarten through pretend play

[Lena Hollenstein](#), [Franziska Vogt](#)

St.Gallen University of Teacher Education, Switzerland

Problem solving is one of the crucial 21st century digital skills in the context of digital transformation, as well as creativity, communication and collaboration. Digital transformation refers to the changes in structuring processes made possible through digitalisation, bringing people, data and technology together in new ways. Children's interest in digital transformation professions could be sparked early on. As learning through play is paramount for kindergarten, competencies for problem solving would best be fostered through pretend play.

Pretend play impulses on the topic of digital transformation were developed: existing corners were extended, i.e. the home corner becoming a smart home corner, and new corners established, i.e. ICT centre, robot factory, etc.. 15 kindergarten teachers participated at professional development and implemented the free play impulses. The children's play was videographed (in total 45h video material). In this presentation, the following research question is analysed qualitatively: in what way do children solve IT problems in pretend play?

Findings indicate that children identify problems in the play situation and solve them not only with conventional tools such as screwdrivers, but also through programming new applications and installations. Furthermore results show that children identify problems in the play situation, seek to debug (i.e. display of

the wrong language), programme (i.e. secure a door with a digital code) and install (i.e. connect a new sensor for coffee machine). The discussion focuses on the potential of pretend play for digital education.

Afternoon poster session | 3:00 – 3:45 p.m. | Poster #18

Does universal early childhood education reduce inequalities? A systematic review

[Rita Schmutz](#), [Leen Vandecasteele](#)

University of Lausanne, Switzerland

Early interventions may contribute to reducing the skill gap between children from vulnerable and favorable backgrounds since the first years of life are a crucial period for brain development. In this context, early childhood education (ECE) emerges as a policy that may affect children's cognitive and non-cognitive development and equalize educational opportunities. Taken altogether, the evidence on ECE influenced policy agendas to include and foster universal ECE. The research on universal preschool programs has mixed results. ECE can have different effects depending on the intensity and quality of the programs as well as depending on it is privately or publicly offered. These diverse effects coupled with the importance of this type of policy motivated this paper that will follow a systematic review method to understand the effect of pre-primary school attendance on children's outcomes and whether these effects decrease inequality. By using a combination of search terms for ECE in bibliographical databases, it was found empirical studies that evaluate ECE and the treatment effects in these studies are used as data in a meta-analytical method that summarizes the effects. The research answers the following research questions: (a) Is early childhood education an effective policy strategy for equalization? (b) What are the effects of universal early childhood education on inequalities over the life course?

Afternoon poster session | 3:00 – 3:45 p.m. | Poster #19

In-sync we learn! A meta-analysis of biobehavioral synchrony's effects on cognition

[Plamina Dimanova](#)¹, [Anna Parenteau](#)², [Camelia Hostinar](#)², [Hellen Lusterms](#)³, [Stefania Vacaru](#)³, [Carolina de Weerth](#)³, [Nora Raschle](#)¹

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Background: By nature, humans are social beings spending their lives in interactions with others. During the first two life decades the most common social partners are caregivers, siblings, peers, and teachers, whose role in learning is often investigated. Evidence for the boosting effects of biobehavioral synchrony, i.e., inter-subject coupling of behavioral and/or neurobiological activity over time, on cognitive performance is mounting; however, the literature is fragmented. Links between distinct synchrony types and cognitive outcomes are examined through various methodological and analytic approaches, lacking the crosstalk between fields.

Methods: Through a meta-analytic approach, we aim to address this gap and integrate the disconnected literature clarifying the positive effects of biobehavioral synchrony on learning outcomes in children (18y). All methods, including inclusion and exclusion criteria, search for relevant literature, abstract and full-text screening procedures as well as data extraction, have been pre-registered and final analyses will only be conducted in line with the steps suggested.

Results: The literature search yielded 9,313 relevant articles. During the abstract screening phase, 1519 studies have been moved to full-text screening. To date, 81% have been assessed for eligibility and 428 studies will be included in the data-extraction process. We expect to present first findings at the time of the conference.

Discussion: The heterogeneous definitions and approaches used in the inter-subject coupling literature of biobehavioral synchrony hinders a mechanistic understanding on how synchrony promotes learning. Creating a unified framework thus holds the potential to disentangle the role of inter-subject coupling on cognitive performance during child development.

Afternoon poster session | 3:00 – 3:45 p.m. | Poster #20

Joint Attention in Parent-Toddler Shared Reading of Print vs Digital Picture Book and its Influence on Child's Novel Word Learning

[Eileen Jasmina Rabel](#)¹, [Gaia Crevola](#)¹, [Nevena Dimitrova](#)²

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Sharing intentional interest on an object or activity is referred to as joint attention (JA). JA is a core social cognition process that allows young children to socially engage and develop communicative abilities. Aspects of parental and child engagement during print vs digital book reading have been assessed in the literature but JA per se has not been examined yet. We ask whether parental scaffolding of child's JA (PS-JA) and child JA differ in shared book reading depending on book format and how this difference might impact the child's ability of new word learning.

Twenty-four parent-child dyads (11 girls; age range=24-36months) were asked to read one print and one digital book for 5 minutes each over a zoom session. Sessions were videorecorded and analyzed for child JA, overall PS-JA (i.e., parental capacity to keep child in JA during the reading activity), as well as frequency and diversity of PS-JA during a new word introduction, and final word production.

Findings revealed that JA did not differ in parent-toddler reading a print vs a digital book for child JA, for overall PS-JA, nor for frequency of parental scaffolding of child's JA during new word introduction ($p > .05$). However, parents were found to use more diverse strategies of PS-JA during new word introduction in the print book compared to the digital book condition ($Z = -2.19, p = .03$). Finally, results revealed no statistically significant difference in the child's final word production between the two book formats ($p > .05$).

Unlike our predictions, JA is not substantially affected by the type of book format during parent-toddler shared reading nor is the language learning in terms of a new word. Nevertheless, we found that parents use less diverse scaffolding strategies when reading a digital book with their young child. Given the importance of JA in language learning, future studies are needed in order to examine whether poorer language learning during digital book reading is accounted for by JA.

Afternoon poster session | 3:00 – 3:45 p.m. | Poster #21

Single-case designs to assess the effectiveness of family orientation in early childhood special education on parents' psychological and emotional state: A pilot study

[Christina Koch](#), [Simone Schaub](#)

University of Teacher Education in Special Needs

Early childhood special education (ECSE) focuses on the child with disability or developmental delay and his/her social environment, with family-oriented practice supposedly being critical to leading to sustained

positive impacts on the child. Given the small and heterogeneous population, research on the effectiveness of ECSE interventions is complex and sparse. This pilot study aims at assessing the effectiveness of family-oriented interventions by the means of experimental single-case studies. This research design offers an idiosyncratic approach to examine the effectiveness of interventions and is thus particularly well suited in the context of ECSE interventions. Due to the novelty of the research in ECSE, the project aims at examining the feasibility and practicability of such studies. A series of single-case studies will be conducted during the regular ECSE that examine the effect of a family-oriented intervention on various aspects of parents' psychological and emotional state (e.g., well-being, stress). The planned research design covers the period prior to the beginning of ECSE (baseline, A-phase), the beginning of ECSE (B-phase), and finally the family-oriented intervention (C-phase). Parents' state is assessed repeatedly across all phases. Intervention phases begin at different times for different families (i.e., multiple-baseline design) to determine, whether a causal relationship exists between the introduction of the interventions (phases A and B) and the changes in parents' state. The planned procedure and the benefits of single-case studies in the development of evidence-based practices will be discussed.

Using Feedback to Improve Monitoring Accuracy in Kindergarten Children

[Mariëtte H van Loon](#), [Claudia M Roebbers](#)

University of Bern, Switzerland

Recognizing errors is challenging for children. In the educational context, inaccurate self-monitoring and a lack of error recognition can hinder learning and successful preparation for elementary school. This study aimed to investigate whether kindergartners' monitoring accuracy can benefit from feedback, by investigating effects of Performance Feedback (PF) and Calibration Feedback (CF), combining feedback on performance with feedback on monitoring. Kindergartners (ages five and six, $n = 105$) were assigned to either a PF, CF, or No-Feedback (NF) control group. They completed analogical reasoning tasks, and then monitored performance by indicating (a) whether responses for each task item were correct or incorrect, and (b) by making global self-reward judgments for performance on the entire task. Moreover, Working Memory (WM) was assessed to investigate individual differences in the ability to process feedback. Children were overconfident; they overlooked most of their errors and gave themselves inappropriately high rewards for performance. Although both PF and CF improved error monitoring, CF had more beneficial effects than PF on monitoring accuracy. In contrast, concerning self-rewarding, PF was most beneficial. The finding that only children with high WM optimally benefitted from CF implies that WM moderates feedback processing. CF may not be equally effective for all kindergartners. Feedback that only addresses performance may be easier to process, and therefore more suitable.

Afternoon poster session | 3:00 – 3:45 p.m. | Poster #22

Effects of EST on communication outcomes for late-talking toddlers

[Martina Vetsch Good](#)¹, [Svenja Zauke](#)², [Mirja Bohnert-Kraus](#)¹

¹SHLR Schweizer Hochschule für Logopädie in Rorschach, Switzerland; ²Praxis für Logopädie Steinmaur

BACKGROUND: Late talking toddlers (LTT) often show difficulties in symbolic and individuation development (1). It is difficult for them to discover language in its representative and communicative function (3). Entwicklungspsychologische Sprachtherapie (EST, 3) considers the interaction between early language

acquisition, development of symbolic and individuation. EST is clinically proven. However, there is little evidence on effects of EST and other treatments for LTT (4-9).

METHOD: We conducted a pilot study to investigate the effects of EST on communication outcomes. Three children aged between 23 and 28 months were monitored for 9 months. Their competencies in language, symbolic, individuation and pragmatic-communicative development were recorded four times. We used standardized tests (10), structured observation (2, 3) and standardized interviews of parents (11).

RESULTS: All participants discovered language in its representative and communicative function. They improved their symbolic competencies and individuation development. In their communicative participation they made clinically important improvements during intervention (13 to 48 change scores) and during follow-up (22 to 37 change scores), except one participant.

DISCUSSION: Our results confirm the expectations from theory and clinical experience (1, 2, 12, 13). Compared to other investigations the progress during the follow up differs (6, 8), meanwhile the progress during the intervention phase is likewise shown in other research (4, 6, 8).

These results brought us to further research: we establish a larger-scale research project on EST and optimize the methodics and the selection of the instruments.

Afternoon poster session | 3:00 – 3:45 p.m. | Poster #23

The role of parental distress for children's happiness and energy level in the context of the COVID-19 pandemic: Initial results from an ongoing study.

[Fabio Sticca](#), [Valérie Brauchli](#), [Patricia Lannen](#)
Marie Meierhofer Institut Zürich, Switzerland

Since the beginning of the COVID-19 pandemic, various measures were implemented by the Swiss government to contain the spread of the virus. While, unlike in other countries, a curfew was never issued, some significant temporary restrictions for families with young children included (1) childcare centers were closed, (2) in- and outdoor playgrounds were inaccessible, and (3) contact with peers and grandparents was discouraged. Many families had to find a balance between work-related duties, homeschooling, and the care of children of different ages and needs. The present ongoing study examines the role of parental distress in various life domains for children's happiness and energy level as indicators of their well-being. The study is designed as a longitudinal study with four waves of assessment. Parents of 404 children aged up to three years ($M=1.27$, $SD=0.61$; 50,0% female) participated in the first assessment in March 2021. The next assessments are planned for June, September, and December 2021. Parents will report on their perceived distress in various life domains (e.g., family, friends, work, routines, physical and mental health). Further, parents will complete a diary on their own as well as their youngest child's happiness and energy level (PANAVA-KS; Schallberger, 2005) during one week at each assessment. The longitudinal reciprocal association between parental distress and children's happiness will be examined using preliminary data from the first three assessment time points. Furthermore, the moderating role of perceived social support, as well as the mediating role of parental exhaustion, will be explored.

Afternoon poster session | 3:00 – 3:45 p.m. | Poster #24

Does the Effect of Caregiver-Child Interaction Quality on Child Social-Emotional Competence Differ by Self-Regulation and Gender?

[Johanna Lieb](#)^{1,2}, [Yvonne Reyhing](#)^{1,2}, [Sonja Perren](#)^{1,2}

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The differential susceptibility hypothesis predicts that individuals differ in their sensitivity to environmental influences. In line with this, previous research found self-regulation and gender to moderate the effect of caregiver-child interaction quality on social competence in a sample of 2-year-olds in the Netherlands. The presented study aims to replicate these findings in a German setting. Data for this study were collected as part of a larger intervention study examining the effect of caregiver training on caregiver-child interaction quality. Caregiver-child interaction quality was rated with the observation tool CLASS toddler at baseline. Child gender, self-regulation, mastery motivation, prosocial behaviour, peer aggression, and task engagement were assessed through teacher questionnaires at baseline and after 6 months. 196 children (Mage=36.5 months, SDage= 16; Nfemale=136) from 20 day care groups are included in the analysis. Data will be analysed utilizing a linear mixed model in R. We hypothesize that caregiver-child interaction quality will have a stronger effect on child competence in children with lower self-regulation. Furthermore, we hypothesize that caregiver-child interaction quality will have a stronger effect on child competence in males. Data collection for T2 is still ongoing. The analysis will be completed at the time of the conference and will be presented on the poster. This study sheds light on the relevance of high-quality early child care for social emotional development for children with different prerequisites.

Afternoon poster session | 3:00 – 3:45 p.m. | Poster #25

Development of Preschooler's Emotion Regulation Competence: Exploring the Role of Peers

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The development of emotional competence is a major milestone in early childhood. Deficits in emotion regulation have negative impact on children's social and academic development. Children learn to select appropriate regulation strategies (self-regulation) through the input of others (co-regulation). Therefore, early socialization experiences within and outside the family play a crucial role for the development and interindividual differences in emotion regulation skills. Although peers are believed to influence children's outcomes, there has so far been no research on peers' exact role in children's emotional competence. The current study aims to gain initial insights about whether and how peers act as emotion socialization agents. We hypothesize that (H1) the higher the mean level of classroom emotion regulation, the higher the increase in emotion regulation skills of individual children over time, and (H2) the higher the mean level of classroom empathic co-regulation, the higher the increase in emotion regulation skills of individual children.

To address the research questions a longitudinal study with three assessment points in 27 Swiss playgroups including N = 211 children (M = 43.3 months, SD = 6.5; 47% girls) was conducted. Playgroup educators completed a questionnaire on children's emotion regulation competence, social behavior and empathy at each assessment point. To test the hypotheses, multilevel growth model with cross-level interaction will be conducted, after the study has been preregistered (registration prior to analysis of the hypothesis).

First results will be presented and the role of peers for developmental changes in preschoolers' emotion regulation skills will be discussed.

Afternoon poster session | 3:00 – 3:45 p.m. | Poster #26

Do preschool children identify the emotions of facemask wearing adults?

[Juliane Schneider](#), [Vania Sandoz](#), [Lucile Equey](#), [Joanne Williams-Smith](#), [Antje Horsch](#), [Myriam Bickle Graz](#)

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Introduction: During the COVID-19 pandemic, staff working in pre-school education were asked to wear facemasks, prompting worries about the ability of children to recognize the emotions of their caretakers. For pictures without facemasks, pre-schoolers between 36 and 72 months had a rate of correct responses between 11.8 % and 13.1%, whereas children between 7-13 years old, recognized emotions significantly better without facemasks than on pictures with digitally added facemasks. The objective of this study was to investigate the impact of facemasks on emotion recognition of preschool children.

Methods: We created a dataset of 90 pictures of adults with and without facemasks, displaying joy, anger or sadness. Children in 9 day-care centres were seated in front of a computer, and shown the pictures in succession. Children could either name the emotion, or point on a card showing emoticons of these three emotions.

Results: The sample consisted of 278 children (girls 48.6%, Mage=52.3 months, SDage=9.6 months). The global correct response rate was 43.4%, without facemask 45% vs 41.9% with facemask ($\chi^2=25.6$, $V=0.032$, $p<.001$). The global rates were 90 % for joy, 24% for sadness and 15.5% for anger. There was no significant sex difference for the global correct response rate, nor for anger and joy. However, boys identified sadness (25.6%) more often than girls (22.3%, $\chi^2=12.24$, $V=0.038$, $p<.001$).

Discussion: Facemasks had a statistically significant negative impact on the identification of emotions, with very small effect sizes, which should be reassuring for caregivers and parents.

Afternoon poster session | 3:00 – 3:45 p.m. | Poster #27

Parents, Children and Digital Media

[Eva Unternaehrer](#)^{1,2}, [Carla Holzapfel](#)², [Pascale Mueller](#)², [Cornelia Geiser](#)², [Laura Hirner](#)², [Julie Brito](#)², [Jalisse Schmid](#)², [Christina Stadler](#)^{1,2}

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Background: Mobile Devices are an essential part of our everyday life. Our smartphones grant access to work, entertainment, information, and even to other people – anyplace and anytime. This permanent accessibility offers many benefits but also bears some risks. For instance, smartphones may distract us from real-life social interactions with family and friends (technoference). The aim of this ongoing study is to examine a potential link between parental technoference during parent-child interactions and child socio-emotional development.

Methods: In a cross-sectional online study, we are collecting data from German-speaking parents with children aged 2-16 years. We assess parental technoference (Parental Scale of Phubbing), child developmental outcomes (Strengths and Difficulties Questionnaire), sociodemographic data, and different parenting-related factors. In the statistical analysis, we will explore the role of parental technoference in combination with socio-demographic and parenting-related risk factors for child development.

Results: Preliminary analyzes (N = 61) suggest an association between parental technoference and greater child behavioral problems. This association was driven by a significant relationship between parental technoference and internalizing, but not externalizing behavioral problems ($t(54) = 1.82$, $p = .075$).

Discussion: First findings suggest that parental technoference is associated with child behavioral difficulties. We will explore how this potential risk factor links with other risk- and protective factors to predict child behavioral problems. The findings from this exploratory analysis will generate new hypotheses, will inform future studies, and will also be relevant in the child psychiatric clinical setting.

Afternoon poster session | 3:00 – 3:45 p.m. | Poster #28

Who benefits from what? Differential benefit of a web-mediated training for early childcare caregivers

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High-quality caregiver-child interactions can positively influence child development. Studies in Switzerland and Germany demonstrate that most caregivers already provide good quality in emotional and behavioral support. However, they perform low on engaged support for learning. Emotional and behavioral support can be considered as the basis for active learning support: To stimulate learning interactions, caregivers need a number of basic competencies from the area of emotional and behavioral support like sensitivity, flexibility and perspective taking. Our web-mediated training for early childcare caregivers addresses these issues. The first four modules focus on supportive emotional and behavioral strategies in caregiver-child interactions. The last two modules focus on engaged support for learning. In the current study, we aim to investigate which modules and topics generate the most subjective benefit. Based on previous findings, we assume that the caregivers will have a stronger benefit from the second part (strategies on engaged support for learning), as this is the domain with the strongest potential for development. Moreover, we will investigate whether the subjective benefit is associated with the starting conditions (i.e. caregivers' baseline interaction quality). To assess the baseline, we conducted standardized observations with CLASS toddler (La Paro et al., 2012) before the training attendance. After attending the training caregivers complete an evaluation questionnaire about their subjective benefit of the modules. Data collection of the evaluation questionnaire is still ongoing, a sample of 40 caregivers can be expected. CLASS observations showed the expected results: Caregivers are in mid to good-range of emotional and behavioral support (M=5.52; SD=.68) and in mid-range in engaged support for learning (M=3.48; SD=1.06). Data will be analysed with regression models controlling for participants' professional experience and educational background.

Afternoon poster session | 3:00 – 3:45 p.m. | Poster #29

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

[Vania Sandoz](#)¹, [Alain Lacroix](#)¹, [Suzannah Stuijzand](#)¹, [Myriam Bickle-Graz](#)², [Antje Horsch](#)^{1,2}

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Aims: The distinct influence of different maternal mental health (MMH) difficulties (postpartum depression, anxiety, childbirth-related posttraumatic stress disorder) on infant sleep problems (ISP) 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 ISP, 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 ISP 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.

Oral session VI | 3:45 – 4:00 p.m.

Parenting and Early Child Development During the Pandemic: A Diary Study

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Objective. While several research projects and political discussions addressed potential effects of interventions to control the COVID-19 pandemic (e.g., social distancing) on school-aged children, research on families with infants or toddlers is scarce. However, as social support has a critical role especially during the transition to parenthood, a reduced social support due to social distancing could elevate parental stress levels and in turn impair child regulatory behavior. Therefore, the present study aims to investigate associations of COVID-related stress, social support, parenting behavior, and child behavior. It is hypothesized that children of parents, who are more burdened by COVID-19, demonstrate more regulatory problems, particularly if parental social support is low.

Method. Families with children younger than 30 months were recruited in spring 2021 via the University Hospital Zurich and social media. Recruitment is still ongoing. Currently, $N = 343$ families participated in a cross-sectional survey and $N = 123$ families participated in a subsequent 10-day diary study. In the survey, parents reported on how they dealt with demands due to the pandemic, social support, parental investment, and child regulation. In the diary, parents reported on their daily affect, child regulation, temperament, soothing strategies and (if children were older than 18 months) parental co-regulation.

Planned Analyses. On a cross-sectional level, we plan to analyze how experiencing and dealing with the COVID-19 pandemic is related to child regulatory problems and parental investment and whether these associations are mediated by social support. Regarding diary data, we will analyze whether daily variations in child behavior are related to daily variations in parenting behavior and whether these associations differ regarding the experience of the pandemic. All analyses will account for different ages of the child.

Oral session VII | 4:00 – 4:15 p.m.

Exploring a new developmental concept: the sleep-brain-gut axis in infants

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Evidence from adults and animals reveals a relationship between sleep and gut bacteria. However, it is unclear when in life this relationship emerges. Neuronal networks, sleep regulation, and gut bacteria undergo significant development; we thus hypothesized their co-maturation and interaction across human infancy.

From 162 infants (3, 6, 12mo) we quantified habitual sleep (actigraphy), gut bacteria (16S-rRNA gene profiling), and behavioral development (Ages and Stages Questionnaire). For neuronal markers we measured high-density EEG during nighttime sleep ($n = 32$, 6mo). Following standard processing (bandpass 0.5–50 Hz, down-sampling to 128 Hz, sleep stage scoring, artifact rejection, FFT), we computed EEG power in the delta

(1–4.5 Hz), theta (4.75–7.75 Hz) and sigma (10–16 Hz) frequencies. We analyzed sleep-brain-gut associations using multilevel and regression models.

Overall, we report a sleep-gut link: First, daytime sleep was linked to gut bacterial diversity ($p=0.02$), and nighttime sleep fragmentation was linked to gut bacteria maturity ($p=0.03$) and enterotype evolution ($p=0.048$). Second, a sleep-brain-gut axis was found: Enterotype at 6mo was associated with delta power ($p=0.02$). Theta power at 6mo predicted later bacterial diversity ($p=0.04$). Third, both gut bacteria and habitual sleep were linked with behavioral development, both concurrently and predictively in longitudinal associations, with the strongest associations at 3mo.

We find evidence for a sleep-brain-gut link in infants, with a sensitive period at 3mo. As both sleep and gut bacteria can be modified non-invasively, this new concept represents a promising health target.

Oral session VIII | 4:15 – 4:30 p.m.

Which parents use a smartphone-based developmental diary and how? An analysis of the first >3000 children whose parents used the “kleineWeltentdecker App”

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Background: Most knowledge on early child development stems from cross-sectionally testing children of different ages. However, uncovering individual developmental trajectories requires a high-density longitudinal approach, which can be achieved by outsourcing the data collection to parents who assess the everyday life behavior of their children. The usefulness of such approaches has also become apparent in light of the current COVID-19 pandemic, which limited access to laboratories.

Method: The “kleineWeltentdecker App” (Daum et al., 2020) is an easy-to-use smartphone-based developmental diary app integrating a population-based, prospective, and microgenetic approach with the age-of-attainment method. Parents of children from 0-6 years can track the development of their children in different domains (cognitive, motor, language, and social-emotional skills). Parents answer questions matched to the children’s age, covering the entire period in which particular skills are expected to change.

Results: We will present preliminary results based on the first > 3000 children whose development was documented using the app. We analyzed parents’ and children’s characteristics relative to population characteristics and described parents’ user behavior. On average, parents answered 71 questions over 49 day; however, there was large variability in user behavior. Further, more than 70% of data points were generated in children’s first and second year.

Discussion: These results help to understand how a smartphone app to document early child development was used by parents and which samples were obtained using this method. We also discuss ways to increase the reach of the app – including expanding its use to non-WEIRD countries.

Oral session IX | 4:30 – 4:45 p.m.

A multi-method study of sensory processing in children with ASD, 16p11.2 deletion carriers and typically developing children

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Sensory processing difficulties are frequent in neurodevelopmental disorders (NDD), particularly in Autism Spectrum Disorder (ASD). Carriers of a 16p11.2 deletion share a predisposing factor for NDD, including ASD. This genetically predefined cohort offers a unique opportunity to identify specific sensory profiles in more homogeneous populations.

In this study, we employed a multi-method approach to study the sensory profiles of three groups of 2-12 year old children: carriers of a 16p11.2 deletion (N=17), children diagnosed with idiopathic ASD (N=121), and typically developing (TD) children (N=45). Behavioral responses to sensory stimuli were evaluated using a parent-report questionnaire. Tactile processing was assessed in a subset of the sample using a lab-based observational paradigm, together with an EEG protocol to investigate neural responses to passive tactile stimulation.

ASD children show significantly higher levels of sensory processing difficulties compared to TD children. Del16p11.2 also scored higher than TD on all sensory subscales except for tactile and olfactory/taste processing. The observational measure differentiated ASD and del16p11.2 in sensory seeking. Exploratory analysis of somatosensory ERPs showed that early neural responses in tactile processing (P1 and N2 components) are altered in ASD children.

Behavioral responses to touch and olfaction/taste stimuli seem to be particularly affected in ASD. Lab-based observations suggest distinctive response patterns to tactile stimuli between ASD and 16p11.2 deletion carriers. Somatosensory ERPs hint at alterations of early neural responses to passive tactile stimulation exclusively in ASD individuals, suggesting further differences between the two clinical groups. These results highlight the importance of using a combination of methods to assess different levels of sensory processing, a much-needed approach to achieve a better comprehension of sensory phenotypes and their impact on daily functioning.

Oral session X | 4:45 – 4:45 p.m.

Effects of early intervention in psycho-socially disadvantaged families in the transition to school: Results from the ZEPPELIN study

[Alex Neuhauser](#), [Simone Schaub](#), [Ramona Eberli](#), [Isabelle Kalkusch](#), [Patsawee Rodcharoen](#), [Erich Ramseier](#), [Andrea Lanfranchi](#)

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It is generally acknowledged that supporting psycho-socially disadvantaged families in the first years of their child's life is most effective in improving long-term educational opportunities. However, very few studies to date have examined the effectiveness of early intervention over longer term. The RCT Study ZEPPELIN examines the effectiveness of the "PAT – Mit Eltern Lernen" program in the area surrounding Zurich. 132 families with psycho-social burdens (e.g. poverty and migration) were supported at home during the first three years after the birth of their children. In addition, group meetings were held monthly at the family center. To examine the question of whether PAT shows long-term effects, the intervention group was compared with 116 families from a control group that received no intervention apart from the general services provided by the communities. Linear regression analyses show that the early support continues to have an impact at kindergarten age - two years after the end of the intervention program. In the first year of kindergarten, the children with PAT showed better German skills, higher self-regulation and fewer behavioral problems. In contrast, no effects were found regarding intelligence and mathematical skills. Results from the second year of kindergarten indicate that the effects from the first year of kindergarten are largely replicated. Regarding the first school year, preliminary analyses indicate a positive effect of PAT on mathematics and reading again. These findings are relevant in respect to the long-term goal of increasing

equal educational opportunities through measures of early intervention. Still, it remains to be investigated whether early intervention with PAT also has an impact on academic achievement onwards during primary school and in the transition to the lower secondary level.
