



BRiSE

Bremen Initiative
to Foster
Early Childhood Development

Third BRiSE Conference on Early Childhood Development
September 26th–27th, 2024



ABSTRACTS



The Bremen Initiative to Foster Early Childhood Development

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Our Promise to Youth



PROGRAM OVERVIEW

SEPTEMBER 26TH, 2024

TIME	PROGRAM ITEMS
11:30 a.m. – 12:00 p.m.	Registration
12:00 – 12:10 p.m.	Welcome
12:10 – 1:10 p.m.	Keynote Address Prof. Dr. Mirjam Steffensky Domain-Specific Learning in Early Education
1:10 – 1:25 p.m.	<i>Coffee Break</i>
1:25 – 3:20 p.m.	Paper Session I
3:20 – 3:30 p.m.	<i>Coffee Break</i>
3:30 – 4:30 p.m.	Poster Session
4:30 – 6:00 p.m.	Paper Session II
6:00 – 7:30 p.m.	<i>Reception</i>

SEPTEMBER 27TH, 2024

TIME	PROGRAM ITEMS
09:00 – 10:30 a.m.	Paper Session III
10:30 – 11:00 a.m.	<i>Coffee Break</i>
11:00 a.m. – 12:00 p.m.	Keynote Address Prof. Dr. Kimberly Noble Socioeconomic Inequity and Children's Development
12:00	Farewell



BRISE

Bremen Initiative
to Foster
Early Childhood Development

Third BRISE Conference on Early Childhood Development
September 26th–27th, 2024



CONFERENCE VENUE

Leibniz Association Headquarters
Chausseestr. 111
10115 Berlin
Germany

DIRECTIONS

The venue of the Third BRISE Conference on Early Childhood Development can easily be reached from Berlin Central Station. Using the exit Europaplatz/Invalidenstraße, the Invalidenstraße will lead you directly to the conference venue which is located at the intersection Invalidenstraße/Chauseestraße.

You may also take the tram M5 heading towards Hohenschönhausen, Zingster Str., the tram M8 heading towards Ahrensfelde, or the tram M10 heading towards Warschauer Str. Exit at the second station which is U Bahnhof Naturkundemuseum.



KEYNOTE ADDRESS: SEPTEMBER 26TH, 2024, 12:10 — 1:10 P.M.

Domain-Specific Learning in Early Education

Mirjam Steffensky

University of Hamburg

Long before entering school, young children can develop basic competencies in different domains such as language, mathematics, and science. Domain-specific competencies are regarded as central components of general education and enable long-term participation in professional and social life. Robust findings from longitudinal studies mainly from language and arithmetic, show that the acquisition of basic competencies is highly relevant to educational success in school and represents an essential prerequisite for a successful transition from early childhood education to primary education and later educational achievement throughout childhood and adolescence. In order to realize the potential of early education, children need frequent and high-quality learning opportunities in the preschool and home context. However, there is a lack of specification in identifying high-quality interactions from the domain-specific perspective. Conceptualizing and assessing domain-specific high-quality interactions goes beyond generic approaches often used. Furthermore, the question arises of how much domain-specific knowledge preschool teachers need to implement high-quality domain-specific learning environments. This talk will present research on domain-specific quality (e.g., science and mathematics) in the preschool and home context and outline and discuss different challenges in this field.



KEYNOTE ADDRESS: SEPTEMBER 27TH, 2024, 11:00 A.M. — 12:00 P.M.

Socioeconomic Inequity and Children's Development

Kimberly Noble

Teachers College, Columbia University

Socioeconomic disparities in childhood are associated with notable differences in cognitive and socio-emotional development during a time when dramatic changes are occurring in the brain. Recent work has focused on understanding the neurobiological pathways through which socioeconomic factors may shape development. It is likely that socioeconomic factors operate via multiple mechanisms to explain the development of different neural circuits. A theoretical model will be presented whereby differences in the home language environment and family stress likely impact particular brain systems, which in turn support distinct neurocognitive skills. Evidence for the model, as well as ongoing and future work testing aspects of the model, will be discussed. Finally, the question of interventions will be addressed, along with an overview of early findings from the first US clinical trial of unconditional income support in early childhood.



PAPER SESSION I: SEPTEMBER 26TH, 2024, 1:25 – 3:20 P.M.

Contributions of Preschool Children’s Home Learning Environment and Executive Function to Early Precursor Skills

Susanne Enke¹, Barbara Hench, Henrik Saalbach¹ & Catherine Gunzenhauser²

¹Leipzig University, ²University of Education Ludwigsburg

Early precursor skills in domains such as mathematics and literacy build the foundation for students’ later academic achievement. Familial influences on students’ achievement in those domain-specific skills have been discussed and subsumed under the umbrella term *home learning environment* (HLE). Yet, the pathways through which structural and procedural family characteristics might exert their influence require further clarification. One candidate for these possible pathways might be children’s domain-general ability to exert top-down control over behavior and thought, i.e., their executive function (EF). In a representative sample of $N = 361$ preschool children (mean age = 55.21 months, $SD = 10.1$, 49 % girls) and their families from four large German cities, children’s early mathematical and literacy skills as well as their EF were assessed. Parents provided information on the families’ HLE. We investigated whether EF would mediate the relation between HLE and early mathematics and literacy in a path model. Missing data was handled using full information maximum likelihood. EF predicted emergent mathematical skills ($\beta = .29, p < .001$) and emergent literacy skills ($\beta = .39, p < .001$) and HLE predicted emergent literacy skills ($\beta = .20, p < .001$), when statistically controlling for SES (parents’ school degree) and age. None of the indirect effects of HLE on precursor skills via EF reached statistical significance. In an exploratory manner, we investigated differences between low (no qualification to enter university, $N = 142$) and high SES ($N = 217$) families. Surprisingly, EF mediated the relations between HLE and early literacy in families of low SES only (standardized effect = .13, $p = .002$). Possible explanations and further results will be discussed.



Cumulative Socioeconomic Risk Factors and Child Temperament

Dave Möwisch¹, Annika Susann Wienke², Emilija Meier-Faust³, Birgit Mathes² & Manja Attig¹

¹Leibniz Institute for Educational Trajectories (LifBi), Bamberg, ²University of Bremen, ³German Institute for Economic Research (DIW Berlin)

A large number of studies in the last decades demonstrated an association between family's socioeconomic status (SES) and child development (Letourneau et al., 2013). Less is known about the cumulative effects of highly co-occurring socioeconomic risk factors (Evans et al., 2013), which may have a greater impact on child outcomes than single risks. Thus, the present study examines the effects of cumulative socioeconomic risk factors on negative affectivity, a dimension of infant temperament and a crucial predictor of later child development in infancy (Sanson et al., 2004).

The current study included data from $N = 271$ families living in socioeconomically and culturally disadvantaged neighborhoods in the mid-sized city of Bremen, Germany. All families participated in the Bremen Initiative to Foster Early Childhood Development (BRISE). Considered potential risk factors included parental education, household income, parental employment status, migration background, and single parenthood. Four items of the Infant Behavior Questionnaire were used to measure negative affectivity. Latent mixture models were used to identify latent groups of these seven socioeconomic risk factors and their relation to infant temperament.

The latent mixture models differentiated between two groups: the first group included a larger number of families ($N = 206$) for whom all risk factors were significantly less pronounced than in the second group ($N = 65$). As hypothesized, infants from families in the group with increased risk factors exhibited significantly higher levels of negative affectivity compared to those in the lower risk group. Potential reasons for these findings and implications will be discussed.



Socioeconomic Inequalities Affect Brain Responses of Infants

Annika Susann Wienke & Birgit Mathes

University of Bremen

Developmental changes in functional neural networks are sensitive to environmental influences. This EEG study investigated how infant brain responses relate to the social context their families live in. Event-related potentials of 255 healthy, awake infants between six and fourteen months were measured during a passive auditory oddball paradigm. Infants were presented with 200 standard tones and 48 randomly distributed deviants. All infants are part of a longitudinal study focusing on families with socioeconomic and/or cultural challenges (Bremen Initiative to Foster Early Childhood Development; BRISE; Germany). As part of their familial socioeconomic status (SES), parental level of education and infant's migration background were assessed with questionnaires. For 30.6% of the infants both parents had a low level of education (≤ 10 years of schooling) and for 43.1% of the infants at least one parent was born abroad. The N2-P3a complex is associated with unintentional directing of attention to deviant stimuli and was analyzed at frontocentral brain regions. Age was utilized as a control variable. Our results show that tone deviations in infants trigger an immature N2-P3a complex. Contrary to studies with older children or adults was the N2 amplitude more positive for deviants than for standards. This may be related to an immature superposition of the N2 with the P3a. For infants whose parents had no high-school degree and were born abroad this tendency was increased, indicating that facing multiple challenges as a young family impacts on the infant's early neural development. Attending to unexpected stimulus changes may be important for early learning processes. Variations of the infant N2-P3a complex may, thus, relate to early changes in attentional capacity and learning experiences due to familial challenges. This points towards the importance of early prevention programs.



Analyzing the Role of Preschool Self-Regulatory Abilities on Social Development From the Preschool to the Primary School Years

Aashna Doshi, Wei Huang & Sabine Weinert

University of Bamberg

Self-regulatory abilities have been suggested to be important for children's social development, especially during the transition from preschool to primary school years. However, past studies have largely focused either on the *emotionally neutral executive functions (EF)* or the *more emotion-related facets* of self-regulation. The inclusion of these self-regulatory facets as predictors of social development during the preschool and primary school years remains largely unexplored. Therefore, the present study aims to unravel the association between various self-regulatory facets (inhibitory control, cognitive flexibility, working memory, delay of gratification, and effortful control; ages 3–5) and social competence (i.e., prosocial behavior and peer relationships; at ages 5, 7, and 9) while controlling for associated factors (e.g., negative affectivity, surgency, receptive vocabulary, non-verbal cognitive functioning, socioeconomic status, among others). This study includes 1,898 children from a German large-scale longitudinal study, the National Educational Panel Study – Newborn Cohort Study (NEPS-SC1). To understand the predictive role of self-regulatory facets in social development (from ages 5–9), various latent growth curve models were performed. The results indicate some significant associations between self-regulatory facets – cognitive flexibility, delay of gratification, and effortful control to the linear or/and quadratic slopes of prosocial behavior. While a significant association existed between effortful control and peer relationships, it did not remain significant after including covariates in the model. Further analyses (e.g., group differences) will be conducted to understand the associations between self-regulatory facets and social development across the childhood years.



Effects of Current and Pandemic-Related Early Childhood Education and Care (ECEC) Centre Closures on Children's Physical, Social and Emotional Well-Being – Is the Long Breath of the Pandemic Just a Little Cough?

Franz Neuberger, Johannes Wieschke, Mariana Grgic, Bernhard Kalicki & Susanne Kuger
German Youth Institute (DJI)

Our article examines the short-term effects of the current increase in childcare facility closures due to staff shortages and illness as well as the long-term effects of closures during the pandemic on children's well-being from a longitudinal perspective covering autumn 2020 to spring 2023. Based on a unique data corpus such as the KiTa registry, the parent survey of the Corona-KiTa study and data from the current wave of the DJI Childcare Study (KIBS), we investigate whether actual and pandemic-related ECEC centre closures have left quantitatively measurable short and long-term effects on children. The well-being of the children is mapped using the various scales from the KINDL scale. Information on closures during the pandemic is taken from the KiTa registry at regional level and from the parent survey at individual level. The combination of these data sources enables a large-scale study of the potential short-term effects of current closures and the long-term effects of pandemic-related closures on both children who are still attending ECEC and children who are already attending school. Our findings indicate negative long-term impacts on self-confidence due to pandemic-related closures as well as short-term negative correlations with current closures on the child's relationship with the ECEC centre in younger children, but no long-term effects in children currently attending school.



PAPER SESSION II: SEPTEMBER 26TH, 2024, 4:30 — 6:00 P.M.

The Long-Term Effects of Two Adapted Versions of a Prenatal and Infancy Home Visiting Program on Child Protection Utilization and Neglectful Parenting

Gabriella Conti^{1, 2}, Malte Sandner^{3, 4}, Tilman Brand⁵ & Sören Kliem⁶

¹University College London, ²Institute for Fiscal Studies (IFS), ³Nuremberg Institute of Technology, ⁴Institute for Employment Research (IAB), ⁵Leibniz Institute for Prevention Research and Epidemiology – BIPS, ⁶Ernst-Abbe-Hochschule Jena, University of Applied Sciences

The US American Nurse–Family Partnership home visiting program was adapted in Germany as the Pro Kind study with two different staffing models. In the first model, which was closer to the original program, a midwife visited the families (midwife-only model). In the second model, a team consisting of a social worker and a midwife carried out the visits (tandem model). The Pro Kind study allocated 755 low-income, first-time mothers to one of the staffing models based on study site and then randomized into an intervention or a control group. In this study we investigate the effects of the two models on self-reported child protection utilization and proxies for neglectful parenting within in the first seven years after birth. Average treatment effects (ATEs) on child protection utilization and neglectful parenting were assessed using augmented inverse probability weighting (AIPW) in combination with the least absolute shrinkage and selection operator (LASSO) to select relevant control variables to control for potential selective loss to follow-up. Our results show the midwife-only model significantly reduced child protection utilization and proxies for neglectful parenting, while the tandem model did not affect these outcomes.



Empathy Under Stress: The Effects of Parental Stress on the Quality of Interaction in Reading Situations

Magdalena Stacheder¹, Elisa Oppermann², Katrin Wolf¹ & Yvonne Anders¹

¹University of Bamberg, ²University of Leipzig

The family is the primary learning environment (Bronfenbrenner & Morris, 2006) where parents provide everyday learning opportunities through their interactions with their children (Kluczniok et al., 2013). Several studies have shown that quality of parent–child interactions plays a crucial role for child development (Kluczniok & Roßbach, 2014; Anders, 2013). The family stress model posits that stressors can lead to parental strain, which negatively affects parental–child interactions (Masarik & Conger, 2017). However, protective factors like empathy, the ability to understand perspectives and emotions of others (Dziobek et al., 2008), are assumed to mitigate negative effects because it enables parents to respond sensitively to their children's needs in times of stress. The present study tests the theoretically assumed protective role of empathy in the relation between parental stress and the quality of parental-child-interactions.

The study involved 127 parent–child dyads, in which parents read a book to their child. Parental stress was measured using the Perceived Stress Questionnaire (Fliege et al., 2009), cognitive empathy was assessed using the Reading the Mind in the Eyes Test (Baron-Cohen, 2001). Interaction quality was coded using the *Beobachtungsinstrument in Bilderbuchsituationen* (Wolf & Anders, in preparation). Initial results, controlling for family background characteristics (e.g., educational attainment, poverty), indicated a significant negative relation between parental stress and interaction quality, particularly for parents with lower levels of empathy. Conversely, for parents with higher empathy there was no significant negative association between stress and interaction quality. These findings will be discussed and practical implications will be derived.



Early Development of Parental Self-Efficacy

Katrin Wolf¹, Gizem Samdan² & Yvonne Anders¹

¹University of Bamberg, ²Heidelberg University

Parental self-efficacy predicts the quality of home learning environment and child development (Gessulat, 2021). Family support programs have the potential to increase parental self-efficacy (Amin et al., 2018), which raises the significance of this construct in context of intervention studies.

We studied how the development of parental self-efficacy relates to characteristics of the family and mother–child relationship, the occurrence of stressful incidents as well as social and professional support during first year of life of their infants. Data stem from the BRISE project (BRISE-Konsortium, 2022) and contain a sample of 300 mothers. Regression analyses, conducted in Mplus with FIML, focused on mothers' reports at two measurements points (T1: age of infants \approx 3 months, T2: age \approx 12 months). At T1, mothers with immigrant background and mothers with more children reported higher levels of self-efficacy. Moreover, self-efficacy related positively to social support and negatively to the perceived stress. At T2, we controlled for T1 self-efficacy in order to examine the development of parental self-efficacy. The more mothers reported on stressful events at T1, the lower was the level of reported self-efficacy. Interestingly, we found highest association with the quality of mother–child relationship. Quite surprising, though, is the negative relationship of parental self-efficacy and the amount of parental support programs that the mother attended. A possible explanation is that mothers with low self-efficacy seek more often for professional support.



Growing Up During Covid-19 – How are Families With Children With Increased Care Needs Doing (and What Prevention Services do They Use)?

Ulrike Lux¹, Anna Neumann², Ilona Renner² & Susanne M. Ulrich¹

¹German Youth Institute (DJI), ²Federal Centre for Health Education

Increased care needs (ICN) of children pose a challenge, also during the early family phase. Because parents of children with ICN are particularly reliant on support services (BMFSFJ, 2021), restrictions in response to Covid-19 were particularly burdensome. However, representative data on the situation of families with young children with ICN in Germany is still lacking. In addition, there are hardly any findings on how these families have experienced and coped with the Covid-19 pandemic.

The purpose of this study was to examine differences and similarities in psychosocial burden as well as in the use of support services among families with and without ICN. Data stem from the study KiD 0-3 2022, in which child development and health of 7,818 families with children aged 0-3 years were assessed, and two thirds of participating parents provided information on psychosocial burden and support service use.

Overall, families with children with ICN showed increased burden (e.g., parental exhaustion, lack of social support) – also regarding consequences of Covid-19. Moreover, they were equally or less likely to use universal services, but significantly more likely to use selective or outreach services.

Families with a child with ICN are a significant high-need target group.

The significance of families with a child with ICN as a target group for support and prevention services in the early family phase will be discussed at the end.



PAPER SESSION III: SEPTEMBER 27TH, 2024, 9:00 – 10:30 A.M.

Recruitment Strategies and Study Participation of Young Families With Socioeconomic Challenges

Emilija Meier-Faust¹, Annika Susann Wienke², Michelle Schynawa², Mareike Oeltjen² & Birgit Mathes²

¹German Institute for Economic Research (DIW Berlin), ²University of Bremen

Children with a migrant or low socioeconomic family background have a higher risk of difficult educational and professional careers. Despite these risks, they and their families are underrepresented in many studies and funding programs. This is in part because families are less likely to receive information about studies or agree to participate. In the Bremen Initiative to Foster Early Childhood Development (BRISE), families from structurally weak districts of Bremen were recruited shortly before or after the birth of a child to better understand the development and long-term effects for children growing up disadvantaged. The present study summarizes the recruitment process and examines 1) whether the number of applicable BRISE inclusion criteria (precarious work situation, migrant background or low educational status) was related to different recruitment strategies among target families and 2) which characteristics of the families and recruitment strategies predicted participation in at least one assessment. A linear regression and post-hoc tests ($N = 667$) showed that direct contact by trusted persons from the medical or social sector (“gate keepers”) were more successful than other information channels when addressing families with a higher number of applicable inclusion criteria. 527 families were invited to participate in the study. A hierarchical logistic regression showed that families who participated in at least one assessment ($N = 466$) were more likely to have a higher level of education than families who did not respond to the invitation. Additionally, willingness to participate was higher before the outbreak of the COVID-19 pandemic, indicating additional barriers to participation due to social challenges and reduced social contact. Overall, the results show that recruitment processes can be selective. Including diverse population groups into a study necessitates to comprehensively plan recruitment, cooperate with specialists and increase sensitivity to minimize barriers to participation.



Laying a Foundation for Quality Learning: Lessons From Home-Based Early Childhood Development Centers in Rural Areas of Rwanda

Christine Nyiramana

Protestant Institute of Arts and Social Sciences in Rwanda

In 2021, the school enrolment rate in Rwanda was 98.9 % (net enrolment rate: NER), and 149.8 % (gross enrolment rate: GER). Despite this high enrolment in primary education, the enrolment rate (30 % for GER and 25.9 % NER) in pre-primary remained low (Republic of Rwanda 2022). Based on the human capital index (HCI) 2020 and Rwanda's performance (Republic of Rwanda, 2021), the expected years of school for children born in Rwanda (6.9) is 1.4 less than the sub-Saharan African average (8.3). Given the above situation, limited access to early childhood education is one of the underlying factors behind this dilemma. Most pre-primary schools were private and located in urban areas. To pave a sustainable solution, strategies for reinforcing early childhood education were reflected including the introduction of home-based early childhood centres (HBECDs) more especially in rural areas. The purpose of this study was to investigate the contribution of HBECDs in the holistic development of children in rural areas, perceptions of parents, and teachers and related challenges. Findings from observations and interviews revealed that the use of locally fabricated learning materials and games make learning more engaging and interesting to children. Teachers testified that the introduction of HBECDs affected positively the transition and readiness to primary education. Mothers testified to have now enough time to participate in income generating activities and thus providing for the well-being of their families. Poor training of caregivers and insufficient materials are one the challenges that need to be addressed to ensure quality early childhood education in HBECDs.



Exploring the Role of Expert Advisors in German Family Day-Care Services – Multiperspective Findings

Nadira Tursun, Melina Preuß & Lisa Ulrich

German Youth Institute (DJI)

Early Childhood Education and Care (ECEC) settings are a central learning environment for children, in which they acquire and develop competencies and skills. In the German ECEC system, family day-care plays a pivotal role in ensuring the legal entitlement to childcare for children under the age of three. Expert advisors are essential for the local support structure, as they play a decisive role in fostering and ensuring quality in family day-care (Schoyerer & Wiesinger, 2017). Nevertheless, the impact of expert advisors on professional practice remains unclear, especially as the job profile and professional identity of expert advisors is still difficult to define (Heitkötter et al., 2012).

This study aims to explore the role of expert advisors by investigating factors influencing the satisfaction of family day-care workers (FDCWs) with the provided expert advisory services. Using cross-sectional large-scale data from the ERiK ("Development of Frameworks in ECEC") Surveys 2022, multilevel models were conducted to consider both the subjective perspectives of FDCWs and contextual factors within each youth welfare office district.

The findings suggested that regular and intensive contact with expert advisory services, along with a positive collaboration with youth welfare office personnel, positively affected the satisfaction levels of FDCWs. This paper addresses an important aspect of quality in the ECEC system, highlighting the relevance of governance in creating necessary preconditions for children's well-being.



Young Children With Socioeconomic Disadvantages: Developmental Courses of Behavioral Difficulties

Wei Huang¹, Sabine Weinert¹, Dave Möwisch², Manja Attig² & Hans-Günther Roßbach¹

¹University of Bamberg, ²Leibniz Institute for Educational Research (LIfBi)

Human development involves interactions between the child and her/his surrounding ecological contexts. Exposure to multiple risk factors, which may elevate allostatic load, tends to disrupt these processes and may have a significant impact on children compared to singular- or non-risk-factor exposure. This study aims to examine whether multiple socioeconomic disadvantages (i.e., parents' low education level, poverty, migration background) would escalate the development of behavioral difficulties over time. Furthermore, as parenting behavior may account for the adverse impact of these risk factors on children, we also examined the association between different parenting behaviors and the development of behavioral difficulties. Drawing on the German National Educational Panel Study – Newborn Cohort, we used latent growth curve analysis to examine the developmental courses of behavioral difficulties (ages 5–9; peer problems, conduct problems, and hyperactivity) for children with different socioeconomic disadvantages. The sample was divided into three groups: non-risk (without any disadvantages; $n = 886$), one-risk-factor (having only one of these disadvantages; $n = 642$), and two-risk-factor (having at least two of these disadvantages; $n = 155$).

Initially, children in the two-risk-factor group exhibited significantly more behavioral difficulties than those in the non-risk and one-risk-factor group. However, the differences between groups decreased with only peer problems remaining significant. The differences between non-risk and one-risk-factor groups were initially non-significant and became significant for peer problems later on. Furthermore, we found different associations between parenting behavior and behavioral difficulties across groups. Practical implications for early preventive programs targeting children from socioeconomically disadvantaged families will be discussed.



POSTER SESSION: SEPTEMBER 26TH, 2024, 3:30 – 4:30 P.M.

Alcohol and Nicotine Consumption During Pregnancy: Prevalence and Predictors Among Women in Bremen, Germany

Pia Römer, Robin Kemmerich, Franz Petermann, Birgit Mathes & Claudia Zierul

University of Bremen

Aims: Consumption of alcohol and nicotine during pregnancy relate to various personal and socioeconomic factors. Since even consumption in non-clinical populations pose a health risk for affected children, epidemiologic data potentially increasing consumption during pregnancy were investigated.

Methodology: Cross-sectional analyses based on interview data of 260 pregnant women taking part in a longitudinal intervention project (Bremen Initiative to Foster Early Child Development) was conducted. Women had a migration background, a below-average family income or faced further challenges. Descriptive statistics were calculated to determine consumption prevalence. Logistic regression models were conducted to estimate associations of alcohol or nicotine consumption with socioeconomic and personal factors.

Results: Of the total sample (mean age: 31.1 years), 45 % consumed alcohol and/or nicotine during pregnancy. Following pregnancy confirmation, 92.3 % quit drinking and 62.8 % stopped smoking. Higher age and better social support increased while an Islamic cultural background decreased the likelihood of alcohol consumption. Smoking was predicted by a lower educational level. Unplanned pregnancies predicted both, consumption of alcohol and nicotine.

Conclusions: Multifold factors influence alcohol and nicotine consumption in non-clinical populations. Preventive strategies should include pre-pregnancy stages and health information need to mirror factors facilitating consumption.



Evaluating Early Interventions: The Impact of Home-Visiting Programs in BRISE on Early Childhood Outcomes

Lidia Gutu^{1, 2}, Mara Barschkett¹, Laura Schmitz², Sophia Schmitz¹ & C. Katharina Spiess^{1, 3}

¹Federal Institute for Population Research (BiB), ²German Institute for Economic Research (DIW Berlin), Johannes Gutenberg University Mainz

Early interventions are widely regarded as a powerful form of investment in the development of children. Previous literature has shown that home-visiting programs focusing on parental support and early learning help children develop better health and cognitive outcomes. Furthermore, such programs can be particularly relevant for minimizing socioeconomic inequalities in early childhood development. However, most of this evidence is based on US data. We focus on the evaluation of two home visiting programs – Pro Kind and Opstapje – in a randomized control trial in a larger German city. We instrument for program participation by considering the neighborhood treatment assignment in which the participant lives. To evaluate the two programs, we use the cost efficiency method, by comparing the annual costs of the programs divided by the effects on children outcomes. In this approach, we use a novel dataset, containing detailed yearly costs reported by the two programs themselves, which we sum up based on the ingredient method. We find that program assignment has a significant effect on program participation. Furthermore, we investigate two sets of outcomes, media consumption and vocabulary, in children at the age of one. We focus on these two topics at a critical stage for language acquisition and habit formation. We do see significant effects in children media usage, as well as in their vocabulary development. We discuss potential mechanisms by examining changes in parenting skills.



The Preschool Home Learning Environment in Families Living With Disadvantages: Perspectives of Their Guardians on Resources and Challenges

Rahel Warnatsch

The family's socioeconomic status (SES) as a specific distal process (Bronfenbrenner's Bioecological Model of Human Development), has highly relevant short- and long-term effects on the respective child's development and learning. This is mediated by the family's Home Learning Environment (HLE), a specific proximal process (Bronfenbrenner's Model), for my research, operationalized as the frequency of an adult family member engaging in interactions/activities with the child, which are statistically beneficial for the child's learning and development (first adopted by Melhuish and colleagues). This empirically indicated relationship may be conceptualized under consideration of the Family Investment Model (FIM), understanding the HLE as investment behavior into the child's development. Beyond these well-researched average tendencies, however, there is also strong empirical support for considerable within-group heterogeneity in HLE provision. Effects of family income on the HLE have been found to be moderate in size, and research suggests the experience of high-quality early HLE can counteract the risk-factors for child development imposed by a family's 'low-SES' — thus acting as a protective factor (especially Siraj-Blatchford and colleagues). It is therefore important to identify the resources which can help 'low-SES' parents to provide their children with higher quality HLE. Despite this clear rationale, little is known about the sources of variance in HLE among 'low-SES' families. In my research, I adopt a resource-focused approach to indicate such that are relevant for the HLE and explore mechanisms of these effects, using data from AID:A 19 and ISOTIS, and differentiating between analogue and digital HLE.



Maternal Help-Seeking Behavior in the First 15 Months of Life

Robert Kayser & Birgit Mathes

University of Bremen

Motherhood frequently entails challenges that prompt mothers to seek both formal and informal support. Research indicates that children's age and maternal problem-perception are associated with active help-seeking.

The Bremen Initiative to Foster Early Childhood Development (BRISE) is a longitudinal intervention study focusing on families residing in underprivileged areas of Bremen. Our analysis of maternal help-seeking behavior utilizes questionnaires from a subsample of mothers ($n = 300$), conducted when children were 3 months (T1), 7 months (T2) and 13 months (T3) old.

At T2 51.7 % of mothers sought help, with 89.4 % reporting that it helped them to cope better with their issues. By T3 30.1 % of mothers searched for help, with 72.1 % of whom already having sought help at T2. The frequency of desire for support significantly decreased over time. Logistic regression analyses revealed that seeking help at T3 is predicted by seeking help at T2 and desire for support related to child's health, nutrition and motor development ($R^2 = .68$). Maternal education, migration background and child's birth order did not predict help-seeking.

Maternal help-seeking in early childhood is motivated by specific issues of desire for support. Given that most parents found the received support helpful, it can be assumed that the available sources of help are highly aligned with parental help-seeking. Successful early help-seeking may foster increased professional help-seeking later on. The lack of association with sociodemographic characteristics suggests that predictive problems in early childhood have a high urgency independent of education and migration whereas structural barriers are less influential in the decision-making process.



Atypical Language Development and Parental Communication: Implications for Theory of Mind Development

Klara Hermes & Sabine Weinert

University of Bamberg

Theory of Mind (ToM), i.e., the understanding of own and other mental states, plays an important role in children's social and cognitive development, with language skills contributing significantly to this development. The importance of language in ToM development becomes particularly evident in deaf and hard-of-hearing (DHH) children growing up with typical hearing (TH) parents thus having limited access to their family language. Previous research showed both lower language and ToM skills in DHH children compared to TH peers. Besides language skills, parental communication patterns seem to affect children's ToM understanding. For instance, parental use of Mental State Talk (MST) relates to TH children's ToM, an association that remains significant when controlling for children's general language skills, as previously shown for TH children. Moreover, parental MST appears independent of TH children's language skills. However, in previous studies of DHH children, their parents used less MST than parents of TH peers. The causes and possible consequences of this difference remain to be investigated. The present study assesses receptive grammar, productive vocabulary and ToM in 36- to 48-month-old DHH and TH children ($n_{DHH} = 33$; $n_{TH} = 36$) at two time points six months apart, controlling for nonverbal cognitive skills. Parental MST is assessed by video-coding of 15-minute parent-child interactions (t1/t2). Preliminary results indicate significant differences in false beliefs understanding and language skills between groups. Data collection will be completed in August 2024, providing further insight into the relationship between ToM, child language, and parental communication behaviors under atypical language learning conditions as found in DHH children.



Focused Attention and Distractibility at 18 Months of Age and Their Association With Media Exposure in Infancy

Annika Susann Wienke, Ulrike Frischen & Birgit Mathes

University of Bremen

Focused attention is a response to discrete sensory stimuli and can be observed in young children as concentrated inspection of objects. Maintaining focused attention is critical for the development of early childhood learning processes. Early exposure to media can jeopardize this ability. The Bremen Initiative to Foster Early Childhood Development (BRISE) scientifically accompanies families with socioeconomic challenges longitudinally. For over half of children, media consumption exceeds maximum recommendations. This study examines the effects of distracting stimuli on states of attention (focused attention during object inspection vs. non-specific attention) and their connection to previous media exposure in $N = 71$ children aged 18 months and over. For this purpose, a periodic audio-visual distractor was used in two of four one-minute trials during the independent structured game. The state of attention before the distraction, the latency until the first look at the distractor as a marker for a change in focus to an unexpected stimulus, and the duration of looking at the distractor as a marker for distraction from the game were coded. Information on early media exposure was collected in infancy (7 months) through interviews with the mother. Focus switching latency was longer for prior incidental vs. focused attention. Over the course of each trial, distractibility decreased overall (habituation). A non-significant trend indicates that this trend is reduced with more frequent media exposure. The results provide an initial insight into the attention performance of small children in a risk group. The results also show that focused attention enables focus to change more quickly than non-specific attention does, while early media exposure could be a risk for higher levels of distraction. These results will be checked in the future by evaluating additional data sets.



Predictors of Digital Media Ownership and Use in Early Childhood: How Parents' Technology Acceptance and Personality Shape Their 0- to 6-Year-Old Children's Media Use

Angela Schorr

University of Siegen

Background: Based on current technology acceptance research parents of children aged 0–6 years ($N = 334$) were surveyed. The purpose of the study was to determine (1) how parental attitudes, motives, and personality traits guide the use and sharing of digital media/toys and (2) how parents who allow their children to use digital games in early childhood differ from those who refuse to do so. Methods: Parents surveyed were approached at playgrounds, doctor's surgeries, in cribs, and kindergartens; participation was voluntary and anonymous. Parents' ability to empathize (trait) and their technoference were recorded, as well as the child's current ownership of digital media and digital toys, the child's use of digital games, and the type/frequency of traditional play activities with/without parents. Results (selection): The child's access to digital media can be reliably predicted by the parental motive to reward the child, the parent's positive attitude toward digital media, the parent's personality traits sympathy (negatively poled!) and personal distress, and the child's age. Digital game use increases among children (total sample), starting among those under two years old at 22.4 % to 71.4 % among six-year-olds. Parents whose children play digital games (subgroup) have a significantly higher stress level in everyday life; the personal distress level (trait) is also higher. The extent to which parent–child communication is interrupted by the parents' own screen media/cell phone use (technoference) is significantly higher in this subgroup of parents.



Influence of Maternal Educational Status and Family Stressors on the Use of Media Devices in Infants

Pia Iken¹, Gizem Samdan^{1, 2}, Mareike Oeltjen¹ & Birgit Mathes¹

¹University of Bremen, ²Heidelberg University

The Federal Ministry for Health Education (BzGA) and the WHO (2019) recommend no media exposure for infants and a maximum of 30 minutes a day for small children. Based on longitudinal survey data from the Bremen Initiative to Foster Early Childhood Development (BRISE), it was examined whether 1) these recommendations reflect the everyday life of young families with socioeconomic challenges and 2) whether maternal education and family stressors are related to greater media exposure in children.

Survey data from $n = 119$ mothers who, surrounding the time of the birth, lived in disadvantaged districts of Bremen and who also had either a migration background, an insecure income and/or a low educational status were evaluated. During the surveys, the child was between seven and 13 months old.

Descriptive analyzes show that more than half of the children spent more than 30 minutes near a running television every day (7M: 61.8 %, 13M: 72.2 %). Correlation analyses show that lower maternal education, higher depressive symptoms (EPDS) and more relationship problems (PFB-K) demonstrate connections to a higher frequency and daily duration of the child's media contact. In a multivariate regression model, the relationship between lower maternal education and higher frequency of child media contact is confirmed ($\beta = -.233$, $p = .016$, 95 % CI [-.1.092, -.166]).

These results underline that for infants and small children, everyday life is significantly more influenced by media consumption than is recommended, which can be seen as an early risk for children's health and cognitive development. Furthermore, the results show that prevention programs must reach families regardless of their educational background and indicate that a better understanding of the interaction, as well as the possible accumulation of risk factors, is important.



Subjective Role Distribution and Parental Leave and its Impact on Maternal Mental Health and Relationship Satisfaction – Comparison of Two German Subcultures in the Transition to Parenthood

Nike Borgmeier¹, Judith Mack², Lydia Rhim³, Victoria Weise², Susan Garthus-Nagel^{2, 3} & Birgit Mathes¹

¹University of Bremen, ²TUD Dresden University of Technology, ³MSH Medical School Hamburg

The transition to parenthood is a critical period for the mental health and relationship satisfaction of mothers. Unequal division of unpaid housework has been suggested as a stressor that negatively affects mental health and relationship satisfaction. Other important stressors during the transition to parenthood relate to child-rearing, career, and financial uncertainties, which are associated with the duration of parental leave. In this study, we aim to better understand the relation between the division of unpaid care work, the use of parental leave among mothers, and maternal mental health and relationship satisfaction. We further aim to compare the results between existing cohorts from East and West Germany.

We will analyze data from two prospective longitudinal cohort studies: the Dresden Study on Parenting, Work, and Mental Health (DREAM) and the Bremen Initiative to Foster Early Childhood Development (BRISE). The DREAM cohort was recruited in Dresden, a region of former socialist East Germany that promoted early returns to labor after birth. In contrast, the BRISE cohort was recruited in Bremen, a part of former West Germany where late returns to labor were common. This cohort further focuses on families with socioeconomic challenges and includes many families migrated from countries that often promote traditional views on gender roles.

A total of 1,735 mothers of DREAM and 235 mothers of BRISE will be included. Data analyses will comprise questionnaires at three measurement time points (during pregnancy; 8 weeks postpartum; 14 months postpartum). We will compare these two cohorts with regard to the mothers' subjective distribution of roles in housework and childcare as well as her planned duration of parental leave. We will further examine how postpartum depressive symptoms and relationship satisfaction can be predicted by those



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factors. To control for potential confounding variables, the number of children, the age of the mother, COVID-19 pandemic exposure, and migration background will be considered.



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CONTACT

brise@leibniz-ipn.de



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