

Empathy is viewed as the basis for human relationships, and it is often associated with responding to others' pain, and therefore linked to compassion and helping behaviors. In theories in the domain of developmental and family psychology parental empathy and its expression to children is viewed as the essential component of the childrearing process, important for their development. New research indicate genetic factors linked to oxytocin (OT) and vasopressin (AVP) as significant for empathy, and those hormones levels' changes as predictors of parental sensitivity. The question arises **whether dispositional empathy in couples facilitates responses towards child's signals linked to discomfort and promoting attachment in the caretaking situation, partially due to hormonal factors?**

To respond to such a question reactions of more or less empathic adults to infant's cry will be explored in the presented project – a new subject in the area of empathy research. The proposed model is named HEART - HORMONALLY mediated EMPATHY role for AFFILIATIVE RESPONSE towards infants TEARS. Mediation role of hormonal levels and their changes between empathy and responsiveness towards infant's cry is emphasized. The project is interdisciplinary. It merges psychological and physiological factors shaping responsiveness towards child's signals, stressing the importance of individual differences for the functioning of couples in the context of parental roles. Romantic couples will be invited to participate in the project: childless (110 couples), and expecting their first child (110 couples). All participants will participate in the experimental procedure with the infant simulator LISSA- a life-like doll, which cries as programmed during the interaction with a caretaker. During this carefully planned procedure 4 salivary samples will be collected from each partner to measure basal and changed levels of salivary OT and AVP, and to gather genetic material for genotyping of polymorphisms in OXTR, AVPR1a and CD38 genes. Sensitivity during experimental sessions (contact with LISSA: 1. individual; 2. in couples) will be assessed with the Ainsworth Sensitivity Scale (observational measure). Additionally, to measure other psychological variables participants will fill in carefully chosen, psychological instruments.

Therefore, the issues essential for the quality of family life and child's development will be explored in the project. We will seek for the answers for questions about the bases or roots of the role of empathy in displaying sensitivity towards children's needs and thus in creating adult-child bonds. In times of praise of independence, with increased social isolation in societies, and increasing frequency of divorce and pathology in families, a deepened analysis of 'a social glue', that is empathy, for responsiveness to child's needs is required.