

# **BabyMICARE: feasibility test of a support program for families of infants with Down Syndrome**

Agustina de la Barra Pinto<sup>1,2</sup>, Andrés Aparicio<sup>1</sup>, Paulina Arango<sup>1,2</sup>, Camila Sabat<sup>1</sup>,  
Renata Garibaldi<sup>1</sup>, Marcela Tenorio<sup>1,2</sup>

<sup>1</sup>Millennium Institute for Caregiving Research (MICARE)

<sup>2</sup>Universidad de los Andes, Chile

Poster presented at the X Annual Congress of the Chilean Scientific Society of Psychology, organized by the Universidad de La Frontera, Campus Pucón, Chile, November 13-15, 2024.

Early interactions are a fundamental pillar for the development of infants, a topic that has been studied more in typical development than in the Down syndrome population. As a result of this, an intervention was carried out through a manualized program with the intention of showing improvements in the interactions between the main caregivers, either mother or father, and their children with Down syndrome, and also to promote the development of adaptive behaviors. This study analyzed the effectiveness and feasibility of the program, which aims to increase the sensitivity and reduce the directivity of caregivers during the mentioned interactions, particularly in moments such as play and routines. The objective of this poster is to observe whether the BabyMICARE program impacts or improves interactions between the primary caregiver (mother or father) and their child with Down syndrome.

This study involved 40 dyads composed of the primary caregiver (mother or father) with their daughter or son with Down syndrome, which were divided into experimental group (N=20) and control group (N=20). The program interventions were 10 sessions with each dyad, the first and the tenth session were in group face-to-face modality and from the second to the ninth in individual online format, the duration of these sessions was approximately 45 minutes following the manualized program. Pre-intervention and post-intervention measurements were taken, where 10-minute video recordings were made of natural play between the infants and their primary caregivers. These videos were coded with the Manchester Assessment of Caregiver- Infant Interaction (MACI), which considers parent variables (responsive responding (SR) and non-directivity (ND)), infant variables (attention to caregiver (ATT), positive affect (POS), negative affect (NEG) and liveliness (LIV)), and interaction variables (mutuality (MUT) and involvement (ENG)) (Wan, 2016) (Wan, 2016).

The results obtained show evidence in favor of the hypothesis, demonstrating the effectiveness of the BabyMICARE program in improving the behaviors of the caregivers in the experimental group. The caregivers of the experimental group showed greater sensitivity (SR) and lower directivity (ND), in addition to significant differences in parameters such as POST, MUT and ENG.

This indicates that they are more positively involved, present greater mutuality and there is greater involvement by the caregivers and their children in the interaction, which suggests that the program not only affects individual aspects of the caregivers but also improves the overall quality of the interaction with their children, enabling the development of adaptive behaviors.

---

<sup>1</sup>[adelabarra@miuandes.cl](mailto:adelabarra@miuandes.cl)

The quantitative analysis allows for an objective evaluation of the results, opening the way for future studies to be complemented with qualitative analysis for a deeper understanding. In conclusion, the effectiveness of the BabyMICARE program has significant implications for the adaptive behaviors that infants develop and the improvement of early interactions between primary caregivers and their children.

*Keywords:* Down syndrome, early interactions, BabyMICARE, intervention.

### **Referencias**

Wan, M., Brooks, A., Green, J., Abel, K., & Elmadih, A. (2016) Psychometrics and validation of a brief rating measure of parent-infant interaction: Manchester assessment of caregiver-infant interaction. *International Journal of Behavioral Development* (41)4. 1-8.