## Theme: Applied physiology; PET and MR imaging

## BRIDGING BODY AND MIND: EXPLORING THERAPEUTIC CHANGE THROUGH PHYSIOLOGICAL DATA AND SELF-REFLECTION

Daniela Sousa<sup>1,2,3</sup> \* †, Rita Paulete<sup>1,4</sup> †, Joana Sequeira<sup>3</sup>, Marilyn J. Monteiro<sup>5</sup>, Marco Simões<sup>1,4</sup>, Miguel Castelo-Branco<sup>1,2</sup>

1 Coimbra Institute for Biomedical Imaging and Translational Research, ICNAS, University of Coimbra, Coimbra, Portugal

2 Faculty of Medicine, University of Coimbra, Coimbra, Portugal

3 Instituto Superior Miguel Torga ISMT, Coimbra, Portugal

4 Centre for Informatics and Systems, University of Coimbra, Coimbra, Portugal

5 PhD Licensed Psychologist, St Petersburg, Florida, USA

\*presenting author

† these authors contributed equally to this work

## Abstract:

Narrative Family Therapy in the autism spectrum is a new intervention approach targeted to families and their members considering the specificities of the autism brain style. It is important to understand if this approach leads to effective therapeutic change in families and individuals. However, as of now, there are no objective methods to analyze therapeutic change. Here, we propose to study the therapeutic change at the individual level using objective measures, namely physiological data, that we will compare with self-rated questionnaires of therapeutic change. We will analyze data from 6 families with a member diagnosed with autism spectrum (ages 9-18 years old). Using the Systemic Clinical Outcome Routine Evaluation SCORE-15 pre-post self-reported measures, we will calculate the Reliable Change Index. Then, we will assess the difference between the rate of skin conductance responses from the first to the last therapy session. With the resulting scores from both approaches, we will conduct a correlation analysis to investigate to which extent they are related. By analyzing this relationship, we expect to validate our methodological proposal to study therapeutic change using reliable measures of the autonomic nervous system. Therefore, it will allow the identification of therapeutic changes without the need to use subjective measures, which can be easily influenced by social desirability or other aspects.

Keywords: therapeutic change; electrodermal activity; autism; narrative family therapy.