Carlos I Mena, MSc

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RESEARCH INTERESTS

- Computational and cognitive neuroscience of mental disorders.
- Computational psychiatry and network theory applied to mental illness.
- Biological markers that characterise psychosis and depression.
- Mental health science and predictive processing.

EDUCATION

2020 –   **Wellcome Trust 4-year PhD in Mental Health Science | UCL**

2017 – 2018   **MSc in Human Cognitive Neuropsychology | University of Edinburgh**
- Awarded a **Distinction**. Final mark of 77.4%, finishing third out of 25.
- Relevant modules**:** Multisensory Integration, Consciousness & Perceptual Awareness, Working Memory, Imaging Mind & Brain, Brain Imaging in Cognitive Neuroscience, Psychological Research Skills, Univariate & Multivariate Statistics and Methodology using R.
- Dissertation**:** *Tactile Selective Attention in ERPs: When Capture is Contingent*. Grade 92%, the highest out of 25.

2008 – 2012   **BSc in Psychology | University of Valparaiso (Chile)**
- Awarded **Highest Distinction**. Final mark of 6.12 out of 7.0, fourth out of 69.
- Dissertation: *A Qualitative Study About Romantic Relationships after an Intervention for Domestic Violence*. Grade 7.0 out of 7.0.

ACADEMIC AWARDS

2020   **'Four-year PhD Studentships in Science'** by UCL Wellcome to study 4-year PhD in Mental Health Science. The studentship covers registration fees, a stipend, research, travel and training costs.

2018   **'Highly Commended Dissertation' Prize** by the School of Philosophy, Psychology & Language Sciences at the University of Edinburgh. Awarded for submitting one of the best master's dissertations across the school.

2018   **'Best Poster Prize'** at the Annual Meeting of the British Association for Cognitive Neuroscience, Glasgow, United Kingdom.

2017   **'CONICYT Master's Scholarship'** by the Chilean government, ranking eighth out of 358 awarded candidates and 2,110 applicants. Full scholarship to study a postgraduate master's degree abroad.

2008   **'Regional Score Honour Scholarship'** by the Pontifical Catholic University of Valparaiso. Full scholarship for having scored the highest in the Social Sciences

Test in the University Selection Test in the O'Higgins region in 2008. It covered all fees and living costs for undergraduate studies for five years (awarded but not accepted).

SELECTED RESEARCH PROJECTS

2019-2020
A Connectomic Neuroimaging Study of the 22q11 Deletion Syndrome: A window into schizophrenia and its genetic causes
Lead researcher: Dr Nicolas Crossley
- Through a research assistant position, MRI data collection, image post-processing, and analyses using FSL, bash, and R.
- As part of the training, I attended the Imaging Post-processing Methods for Cognitive Sciences course at the Pontifical Catholic University of Chile.
- I used tract-based spatial statistics (TBSS) with FSL to understand changes in anatomical brain connectivity in psychosis. Statistical analyses using R.

2019
Antidopaminergic Modulation of Functional Brain Networks in Patients with a First Episode of Psychosis
Lead researcher: Dr Tomas Ossandon
- Through a lab manager position, participants recruitment, databases management, and lab logistics (e.g. ambulance services, 3T MRI scanner appointments, supplies, etc.)

2018
Tactile Selective Attention in ERPs: When Capture is Contingent
Supervisor: Dr Elena Gherri
- Presented poster of the results in British Association for Cognitive Neuroscience 2018 annual meeting.
- Assisted in the design of the experiment using E-prime. Piloted stimuli, recruited participants, collected EEG and behavioural data (error rates and reaction times), preprocessed and analysed EEG data using BrainVision Analyzer and MATLAB (EEGLAB, ERPLAB), carried out parametric and non-parametric statistical analyses, including Bayesian analyses, using R.
- After graduation, I continued working at the lab recruiting new participants for a second related experiment. Collected and analysed data of around 45 participants in total. This work has led to a manuscript.

2015 – 2016
Differential Access to Mental Health Treatment in Subjects with Attempted Suicide and Consummated Suicide
Lead researcher: Dr Alejandro Gomez-Chamorro
- Assisted in data collection, carried out structured clinical interviews (M.I.N.I.) to patients who had attempted suicide.

2012
A Qualitative Study About Romantic Relationships after an Intervention for Domestic Violence
Supervisor: Prof. Cecilia Alarcon-Agurto
- Used Grounded Theory to describe the dynamics in the relationships after being intervened on domestic violence by the National Service of Women in Chile. Coding was carried out using ATLAS.ti software.

PUBLICATIONS

Mena, CI.*, Lang, K.*, & Gherri, E.* (in press). Electrophysiological correlates of attentional selection in tactile search tasks: The impact of singleton distractors on target selection. Accepted in *Psychophysiology*, April, 2020. *Equal contribution.

Mascayano Tapia, F., Lips Castro, W., **Mena-Poblete, C**., & Mancheg Io Soza, C. (2015). Stigma towards mental disorders: characteristics and interventions. *SALUD MENTAL, 38*(1), 53-58.

PRESENTATIONS AND CONFERENCES

Mena, CI.*, Lang, K.*, & Gherri, E. (2018, September). *Attentional capture by salient distractor in a tactile search task*. Poster presentation at the British Association for Cognitive Neuroscience (BACN) annual scientific meeting at the University of Glasgow, UK. Awarded the "Best Poster Prize".

Mena, CI., Manchego-Soza, C., & Vega-Letelier, T. (2013, March). *About the effects of domestic violence interventions in the conceptualisations of romantic relationships*. Talk at the Contemporaneous Perspectives in Family Violence Conference at the University of Americas, Chile.

TEACHING EXPERIENCE

2011 – 2012   **Teaching Assistant | Psychopathology I and II | University of Valparaiso**
Collaborated on research with Dr Walter Lips and assisted in grading exams.

2009 – 2012   **Teaching Assistant | General Psychology I and II | University of Valparaiso**
Led several seminars and supervised up to 15 undergraduate students per year in literature review assignments. Graded their exams and assessments.

CLINICAL AND WORK EXPERIENCE

2016 – 2017   **Head of Mental Health Department | Rancagua Family Health Centre | Chile**
Supervised medical doctors, psychologists, and social workers. Organised practice, managed records and statistics of patient data. Assured the centre met its monthly goals for diagnosis and treatment.

2013 – 2017   **Clinical Psychologist | Rancagua Family Health Centre | Chile**
Diagnosed and treated people suffering from mental disorders using Cognitive Behavioural Therapy (CBT) in a primary-care clinic.

2012 – 2012   **Clinical Internship | Psychological Centre, University of Valparaiso | Chile**
Under supervision, diagnosed and treated patients with psychological disorders.

2012 – 2012   **Internship | Victims and Witnesses Unit, Public Ministry | Chile**
Assisted crime victims and their relatives in their dealings with the justice system.

OTHER SKILLS AND QUALIFICATIONS

- Languages: English (fluent), Spanish (native), French (upper-intermediate).
- IT & Programming skills: R, MATLAB, FSL, E-prime, Bash shell (UNIX), Linux.
- Certification in clinical practice in Chile, University of Valparaiso, 2012. CBT training in 2016.