

Anna Y. Kharko

EARLY CAREER RESEARCHER · LAB R.E.D. LEAD & FOUNDER · NORDeHEALTH CO-ORDINATOR

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Education

PhD in Psychology

UNIVERSITY OF PLYMOUTH

Plymouth, UK

2016 – 2021

- Thesis Title: *The Psychology of Anxiety and Pain in Fibromyalgia*
- Supervisory Team: [Dr. Matt Roser](#), [Prof. Stephen D. Hall](#), [Prof. Paul Furlong](#)

Higher Education Academy (HEA) Fellowship

HEA & UNIVERSITY OF PLYMOUTH

Plymouth, UK

2016 – 2017

- Award: Distinction
- Masters Level Postgraduate Certificate of Teaching at Higher Education

BSc (Hons) Psychology with Certificate of Professional Experience

UNIVERSITY OF PLYMOUTH & WESTERN UNIVERSITY

Canada & UK

2012 – 2016

- Award: First Class
- 2nd Year: Exchange Year at Western University, London, ON, Canada
- 3rd Year: Professional Placement at University of Plymouth, UK
- Dissertation Title: *Effects of rTMS on Visual Sequential Statistical Learning in Healthy Adults*

Employment

Researcher & Project Co-ordinator

UPPSALA UNIVERSITY

Uppsala, Sweden

2021 – 2023

- Responsibilities: Research and project management in [NORDeHEALTH](#) and [Beyond Implementation of eHealth](#).

Research Fellow

UNIVERSITY OF PLYMOUTH & STIRLING UNIVERSITY

Plymouth, UK

2021

- Responsibilities: Research of digital health innovative technology as part of [EPIC](#) and [GOALD](#).

Research Experience

HEALTHCARE RESEARCH

OpenNotes: Clinical Education & Practice

CI: STUDY DESIGN, PROJECT MANAGEMENT, DATA COLLECTION, QUANTITATIVE & QUALITATIVE ANALYSES

Sweden, Switzerland, UK, USA

2020 – Ongoing

- PIs: [Dr. Charlotte Blease](#), [Assoc. Prof. Maria Hägglund](#), [Dr. Catherine DesRoches](#), [Prof. Ray Jones](#)
- **Project 1:** An online Delphi survey of experts to predict the impact of mental health open notes.
- **Project 2:** Qualitative investigation on opinions of clinicians and patients toward opening mental health notes.
- **Project 3:** National survey with Swedish healthcare students on the education and attitudes toward writing open notes.
- **Project 4:** Survey and focus group with chronic primary pain patients about current access to medical records and interest in open notes.
- **Project 5:** Nation-wide survey of British GPs' experience and opinions of patient access to medical records in the UK.

Illness Narrative of FM Patients Following Intervention Program at University Hospitals

Plymouth (UHP)

CI: PROJECT MANAGEMENT, GROUP FACILITATION, QUALITATIVE ANALYSIS

Switzerland & UK

2020 – 2021

- PIs: [Dr. Cosima Locher](#), [Dr. Anthony Davies](#)
- **Project:** Focus group with FM patients who have undergone specialised intervention at UHP.

AI/ML in Clinical Psychology & Medicine

Italy, Switzerland, UK, USA

CI: PROJECT MANAGEMENT, DATA COLLECTION, QUANTITATIVE & QUALITATIVE ANALYSES

2019 – 2021

- PIs: Dr. Charlotte Blease, Dr. Cosima Locher, [Dr. Marco Annoni](#)
- **Project 1:** A Delphi survey on the predicted impact of AI/ML on US healthcare in 2029.
- **Project 2:** Mixed-methods investigation of the beliefs and formal education in AI/ML in Clinical Psychology postgraduate education.
- **Project 3:** Nation-wide survey of final year medical students in Ireland on the use of Artificial Intelligence/Machine Learning (AI/ML).

CLINICAL HEALTH RESEARCH

Chronic Primary Pain (CPP) Network Meta-analyses at the Pain Net

Germany, Switzerland, UK, USA

CI: SCREENING, EXTRACTION LEAD

2018 – Ongoing

- PIs: [Dr. Cosima Locher](#), [Dr. Helen Koechlin](#)
- **Project 1:** Systematic review & network meta-analysis of pain management interventions for CPP conditions.
- **Project 2:** Meta-analysis of pharmacological interventions for pain & depression in FM.
- **Project 3:** Network meta-analysis of pharmacological interventions for CPP.
- **Project 4:** Drawing on our group's expertise in CPP, we wrote a letter in response to the new treatment guidelines by NICE.

Impact of COVID-19 Pandemic on Fibromyalgia (FM)

Switzerland, UK

PI

2020 – Ongoing

- CIs: Dr. Cosima Locher, Dr. Charlotte Blease, Dr. Matt Roser, Prof. Stephen D. Hall
- **Project 1:** Observational study of the relationship between COVID-19 anxiety & FM pain
- **Project 2:** Qualitative survey of causes of COVID-19 anxiety for FM patients.
- **Project 3:** Revisiting Project 1 a year later to investigate whether COVID-10 anxiety and FM pain have changed.

Implicit Learning & Action Anticipation in Neuroatypical Individuals

Plymouth & Exeter, UK

RA: RECRUITMENT, DATA COLLECTION

2014 – 2015

- PIs: Dr. Matt Roser, [Associate Prof. Patric Bach](#), Dr. Matthew Huddson
- **Project 1:** Behavioural study on implicit learning of visuospatial relationship in neuroatypical adults.
- **Project 2:** Behavioural study on anticipation of motor action in neuroatypical adults.

PSYCHOPHYSICAL & NEUROPSYCHOLOGICAL RESEARCH

Laboratory for Respiratory Experimental Designs (Lab R.E.D.)

UK

FOUNDER & LEAD

2018 – Ongoing

- CIs: [Dr. Sam Hughes](#), Dr. Matt Roser, Prof. Stephen D. Hall, Dr. Tara Zaksaitė, [Dr. Alaistar Smith](#)
- Responsibilities: lab management, equipment training; research supervision and facilitation; health, ethics, and safety compliance.
- **Project 1:** Experimental investigation of the relationship between respiratory anxiety and concurrent acute pain.
- **Project 2:** Feasibility study on respiratory anxiety in FM.
- **Project 3:** Study on the development of spatial memory during acute respiratory anxiety.

Prejudice during the COVID-19 Pandemic

UK

CI: STUDY DESIGN

2020 – 2021

- PIs: Ryan Statton, [Dr. Jaysan Charlesford](#)
- **Project 1:** Cross-sectional study on ideology, prejudice, and compliance with public health recommendations during the COVID-19 pandemic.
- **Project 2:** Cross-sectional study on aversive racism and social distancing.

Electrophysiological Research on Acute Pain Processing

UK

PI

2017

- Co-PIs: Dr. Matt Roser, Prof. Stephen D. Hall, Prof. Paul Furlong
- **Project:** Study of continuous pain ratings in response to concurrent noxious electrical stimulation in FM and pain-free participants.

Motor Control Lab, University of Plymouth

Plymouth, UK

RA: DATA COLLECTION

2015 – 2016

- PI: [Dr. Edward Rhodes](#), Prof. Stephen D. Hall
- **Project 1:** Investigation of cortical oscillations involved in simple motor action preparation through EEG, TMS and tACS.
- **Project 2:** Pilot test of Project 1 with Parkinson's Disease patients.

Neuropsychology of Reasoning

Plymouth & Exeter, UK

CI: PILOT TESTING; DATA COLLECTION & DATA PRE-PROCESSING

2014 – 2021

- PI: Dr. Matt Roser
- **Project 1:** EEG study of neural oscillations underpinning conditional and syllogistic reasoning.
- **Project 2:** fMRI study the cortical network involved in conditional and syllogistic reasoning.
- **Project 3:** MRI-guided TMS of cortical brain regions involved in conditional and syllogistic reasoning.
- **Project 4:** fMRI activity associated with temporal sequence memory encoding.

OTHER

Longitudinal Categorisation Learning

UK

RA: DATA COLLECTION

2012 – 2013

- PI: [Prof. Andy Wills](#)
- **Project:** Longitudinal behavioural study on categorisation learning.

Teaching Experience

Undergraduate Research Methods & Statistics Module

University of Plymouth, UK

WORKSHOP TUTOR

2016 – 2020

- Topics: quantitative & qualitative statistical methods, technical training of SPSS.

Various Undergraduate Modules

University of Plymouth, UK

EXAMS & COURSEWORK MARKER

2016 – 2021

- Responsibilities: marking various written assignments, posters, presentations, and exams across all years of the Psychology undergraduate programme, as well as biomedical undergraduates.

Skills

RESEARCH METHODS

Observational Online Surveys (Delphi, Cross-sectional, Longitudinal), Focus Groups

Reviews Network Meta-analysis (Screening, Extraction, Assessment)

Psychophysical Experimental Anxiety (CO₂ Model), Experimental Pain (TES)

Neuroimaging EEG (neuroPRAX, actiCAP), fMRI (Philips 1.5 T)

Neurostimulation TMS/rTMS (Magstim Ltd.), DC-STIMULATOR (neuroConn), Power1401 Box (CED Ltd.)

DATA PROCESSING & ANALYSIS

Quantitative Mixed-effects Modelling (Advanced), Bayesian Inference (Enthusied Novice)

Qualitative Delphi, Thematic Analysis

Programming R (Advanced), MATLAB/SPM (Novice)

Software BrainVoyager QX (Novice), JASP (Advanced), SPSS (Advanced), Microsoft Office/Adobe/PDF-XChange (Advanced)

OTHER

Languages Bulgarian (Native), Russian (Native), English (Proficient), German (Advanced), Swedish (Beginner)

Research Grants

£ 1,000	PI , Research Grant from Centre for Health Technology, University of Plymouth	2021
£ 2,800	PI , Research Grant from School of Psychology, University of Plymouth	2021
£ 2,300	Co-PI , Research Grant from School of Psychology, University of Plymouth	2019
£ 2,000	PI , Equipment Grant from School of Psychology, University of Plymouth	2018

Awards

Award for Poster Presentation at the 18th World Congress on Pain 2021

BY INTERNATIONAL ASSOCIATION FOR THE STUDY OF PAIN

Awarded free registration and a travel grant to present a poster on the first study from Lab R.E.D.

Canada

Postponed to 2022

Best Speaker Award at the 11th School of Psychology Conference

BY UNIVERSITY OF PLYMOUTH

Overview of literature, best practices and Lab R.E.D.'s experience in human experimental model of anxiety.

Plymouth, UK

June 2019

Shortlisted for Best Dissertation in Posters in Parliament

BY THE BRITISH CONFERENCE OF UNDERGRADUATE RESEARCH

Poster on dissertation research was presented at the Palace of Westminster in front of members of the British parliament.
Shortlisted for the best national undergraduate project.

Palace of Westminster, London, UK

January 2017

Award for Best Dissertation in Neuropsychology 2016

FROM UNIVERSITY OF PLYMOUTH

Undergraduate dissertation project on the modulation of the dorsolateral prefrontal cortex (dlPFC) through rTMS during implicit statistical learning.

Plymouth, UK

July 2016

Posters & Presentations

Poster	<i>Efficacy of Antidepressants in Fibromyalgia: A Systematic Review</i> , 18 th World Congress on Pain, Canada	2022
Seminar	<i>Experimental Model of Anxiety: Overview & Application in Pain Research</i> , King's College London, UK	2021
Seminar	<i>Experimental Model of Anxiety: Overview & Application in Social Science</i> , University of Plymouth, UK	2020
Talk	<i>Introduction to Lab R.E.D.</i> , School of Psychology Conference, University of Plymouth, UK	2019
Poster	<i>Novel Approach to Measuring Temporal Summation in Fibromyalgia</i> , 17 th World Congress on Pain, USA	2018
Poster	<i>Temporal Summation & Habituation in Fibromyalgia</i> , Annual Research Event, University of Plymouth, UK	2018
Talk	<i>Temporal Profile of Pain in Fibromyalgia</i> , Aston University, UK	2017
Poster	<i>Effects of rTMS on Visual Sequential Statistical Learning in Healthy Adults</i> , Posters in Parliament, UK	2017

Some posters & presentations can be seen [here](#).

Additional Education

Health & Safety Training Courses

SPECIALISED TRAINING

Various courses pertaining to gas handling, first aid and fire safety.

Plymouth, UK

2019

CED Training in Signal Processing

SPECIALISED TRAINING

Course overview: Introduction to the proprietary software for Power1401 box Spike2 (spike sorting, graphical sequence editor, scripting syntax), as well as advanced signal sampling with external hardware such as TMS or tDCS.

Cambridge, UK

2018

Memberships & Roles

Member	The Faculty of Health, University of Plymouth Equality, Diversity, & Inclusivity , University Committee	2018 - Ongoing
Member	International Association for the Study of Pain , Professional Organisation	2018 - Ongoing
Member	The British Pain Society , Professional Organisation	2018 - Ongoing
Organiser	Perspectives on Good Treatment, University of Basel & University of Plymouth , Symposium	2019
Organiser	The 9th School of Psychology, University of Plymouth , Conference	2017

Supervision

1. **Elise Seabrook-France**, Placement Student 2021
2. **Rachael Brown**, Placement Student 2021
3. **Kirralise Hansford**, Lab R.E.D. Research Assistant 2019 – 2021
4. **Imogen Payne**, Lab R.E.D. Research Assistant 2019 – 2020
5. **Joshua Ainslie**, Placement Student & Lab R.E.D. Research Assistant 2019 – 2020
6. **Thomas Burgess**, Final Year Undergraduate Project 2017
7. **Abbey Clarkson**, Final Year Undergraduate Project 2016

Publications List

PUBLISHED

- Korwisi B, Barke B, **Kharko A**, Bruhin C, Locher C, Koechlin H (In Print) Not really nice: A commentary on the recent version of NICE Guidelines [NG193] by The Pain Net. *PAIN Reports*
<http://doi.org/TBC>
- Blease C, **Kharko A**, Hagglund M, Harcourt K, O'Neill S, Salmi L, Wachenheim D, Torous J, DesRoches CM (In Print) The Benefits and Harms of Open Notes in Mental Health: A Delphi Survey of International Experts. *PLOS ONE*
<http://doi.org/TBC>
- Blease C, Torous J, **Kharko A**, DesRoches CM, Harcourt K, O'Neill S, Salmi L, Wachenheim D, Hagglund M (2021) Preparing Patients and Clinicians for Open Notes in Mental Health: A Qualitative Inquiry of International Experts. *JMIR Mental Health*, 8(4):e27397
<http://doi.org/10.2196/27397>
- Blease C, **Kharko A**, Annoni M, Gaab J, Locher C (2021) Machine Learning in Clinical Psychology and Psychotherapy Education: A Mixed Methods Pilot Survey of Postgraduate Students at a Swiss University. *Frontiers in Public Health*, 9, 273.
<https://doi.org/10.3389/fpubh.2021.623088>
- Hudson M, Nicholson T, **Kharko A**, McKenzie R, Bach P (2021) Predictive Action Perception from Explicit Intention Information in Autism. *Psychonomic Bulletin & Review*, 28, 1556–1566
<https://doi.org/10.3758/s13423-021-01941-w>
- Blease C, **Kharko A**, Locher C, DesRoches CM, Mandl KD (2020) US primary care in 2029: A Delphi survey on the impact of machine learning. *PLOS ONE*, 15(10): e0239947.
<https://doi.org/10.1371/journal.pone.0239947>

IN REVIEW / PREPRINTS

- Koechlin H, **Kharko A**, Probst T, Pradela J, Buechi S, Locher C (In Review) Placebo responses and their clinical implications in Fibromyalgia. *Frontiers in Pain Research*
- **Kharko A**, Hall S, Furlong P, Roser M (2020) Continuous pain report demonstrates time delay of pain ratings in Fibromyalgia. *medRxiv*
<https://doi.org/10.1101/2020.12.28.20248780>
- **Kharko A**, Hansford K, Furlong P, Hall S, Roser M (2020) The Anxiety and Pain of Fibromyalgia Patients during the COVID-19 Pandemic. *medRxiv*
<https://doi.org/10.1101/2020.11.24.20188011>
- **Kharko A**, Hansford K, Klein F, Furlong P, Hall S, Roser M (2020) The role of anxiety in the perception of pain: exploring the cumulative & temporal mechanisms of hypercapnic analgesia. *bioRxiv*
<https://doi.org/10.1101/2020.10.30.357061>