Milan Zarchev

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Research profile

I am a medical psychology researcher interested in quantitatively investigating trauma and psychopathology in vulnerable populations. Having seen the diversity of manifestations mental illness can take, I wish to work towards understanding what people with psychiatric diagnoses share in common and how do we conceptualise and effectively intervene on the implicated causal factors. I aspire to address those questions through methodologically robust, theoretically meaningful and maximally transparent research that is incumbent upon our generation of academics.

Education

2019 - 2021

Medical Psychology (Research Master)

Erasmus MC, Rotterdam

2014 - 2018

Psychology (BA Honours)

University of Strathclyde, Glasgow

Ongoing study collaborations

My hope is that most projects below will produce pre-prints before peer-review. This is up to my co-authors. At this moment, I am allowed to share the R scripts I wrote for each project. All work shared is my own.

- Prevalence of sexual abuse in men with mental illness: a Bayesian meta-analysis (first author); <u>DOI 10.17605/OSF.IO/4J8CT</u>
- A cross-sectional network analysis of affective and psychotic symptoms in a large adolescent sample (first author); DOI 10.17605/OSF.IO/5MW89
- Victimization of individuals with serious mental illness living in sheltered housing. (first author); <u>DOI 10.17605/OSF.IO/UW6HZ</u>
- Do adolescent externalizing and internalizing symptoms increase during COVID (firs author); <u>DOI 10.17605/OSF.IO/WFHJ7</u>
- The effect of bright-light therapy on sleep stability in pregnant women with major depressive disorder: a time-series analysis; <u>DOI 10.17605/OSF.IO/HR49P</u>
- Subthreshold PTSD in patients with serious mental illness a latent class analysis approach; DOI 10.17605/OSF.IO/UN9HX
- Implicit dangerous world beliefs held by child sexual offenders; DOI 10.17605/OSF.IO/QGJK2
- Perceived discrimination mediates the relationship between victimization and social isolation in patients with a severe mental illness: a cross-sectional study; DOI 10.17605/OSF.IO/JE7TY

Research Experience Full-time researcher Erasmus MC, Rotterdam

December 2020 - ongoing

- Ongoing collaboration with senior faculty of the Erasmus MC psychiatry department on preparing projects of various study designs (longitudinal cohort, intensive time-series, RCT, electronic patient files).
- Providing methodological support to colleagues, ranging from effective communication of descriptive statistics to re-fitting models in the Bayesian analysis framework.

• Introduced modern solutions for efficient and transparent collaboration (working entirely within R projects, version control via Github)

Research assistant

Memory and Aging Lab, Glasgow

August 2018 – June 2019

- Collected, cleaned and modelled data for an experimental behaviour project investigating the effects of top-down attention on older adult visual working memory
- Analysed results and visualised model outputs under experienced supervision
- Communicated progress and obstacles to other researchers in regular lab meetings

Research assistant

Optima/BIONANO, Glasgow

September 2017 – April 2018

- Investigated communication effects between prisoners and scientists involved in public engagement in prisons
- Designed novel measures for assessing the effects of engagement with prison populations and attempted validation via factor analysis
- Oversaw qualitative observations on site to review the validity of measures
- Worked within a tight schedule to distribute survey to participating scientists

Project assistant

3D perception and spatial ability, Glasgow

May 2017 – August 2017

- Worked within a team of skilled researchers exploring the effects of depth perception deficits on real life abilities.
- Gained first-hand experience in translating theoretical knowledge to concrete methods
- Communicated findings to experienced team members

Further academic achievements and training

- Provided support and supervision to fellow student in applying R to their master's thesis
- Selected for a 2-week academic exchange in Tianjin Normal University, China. Attained HSK1 certificate for proficiency in Chinese
- Presented research at British Psychological Society conference
- Certified STEM ambassador

Other Experience Casework Volunteer Glasgow Night Shelter

2015 - 2019

- Conducting casework with vulnerable people of various backgrounds, organising evidence and prepping them for court hearings.
- Providing support to asylums seekers with histories of various physical and mental health issues. Organising visits to clinics and helping individuals understand diagnoses and treatment options.
- Establishing a relationship of trust and compassion with individuals requiring a personal approach. Substance abuse, chronic depression and suicidal tendencies are amongst the barriers often faced.
- Ensuring an atmosphere of support and stability within the premises. Nominated volunteer of the year by university union as recognition of efforts.

Shadow Experience

Municipal Psychiatric Hospital, Haskovo, Bulgaria

July 2018

- Shadowed a team of psychiatrists in their daily interactions with ward patients
- Gained appreciation of skills required to support people diagnosed with schizophrenia, bipolar disorder and other psychosis related disorders
- Assisted in geriatrics ward, where different symptoms associated with the various types of dementia can be observed

Language skills

English fluent, written and spoken

Bulgarian native speaker

Russian basic; written and spoken

Other skills

- Excellent competency in using R for cleaning, modelling and visualizing data
- Beginner knowledge of Python, Java, C++ syntax;
- Proficient in Microsoft Office products, Github version control and various statistical software packages such as JASP and SPSS