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## International Network of Educational Institutes (INEI)

### Summer Term Seminar (Mini) Series

**Date:**

Wed 7 June 10-11am UK time

Dr Alina Pelikh, IOE *and* Dr Farhan Ali, NIE

Wed 7 June 17-18pm Beijing time

**Speaker 1:** Dr Alina Pelikh, IOE, UCL's Faculty of Education and Society

**Childbearing, Experiences of Medically Assisted Reproduction, Unintended Childlessness and Partnership Stability**

Despite the increasing use of Medically Assisted Reproduction (MAR) to realise fertility intentions in modern societies, it is rarely integrated into family demography work. For example, there is limited evidence showing whether MAR treatments are associated with partnership stability. While older age and more advantaged socio-economic position of women undergoing MAR treatments, together with their strong fertility intentions, could lead to higher partnership stability, the experience of infertility and stress related to MAR treatments may have an opposite effect, especially if couples remain childless. We use data on Finnish nulliparous couples from years 1996-2016 (N=149,884) to investigate whether partnership stability differs between couples who conceived naturally with (1.2%) or without (89.1%) a history of MAR, through MAR (7.7%), or remained childless after MAR (2.0%). Using event history analysis, we find no differences in partnership stability between couples who had a child after MAR or after conceiving naturally, once accounting for selection by sociodemographic, partnership and mental health characteristics. In contrast, we observed a significantly higher risk of separation among couples who remained childless after MAR. Although the excess separation risk decreases after two years since discontinuation of treatments, it remains substantially higher compared to couples who had a child after conceiving naturally or through MAR, which suggests there could be partial adaptation to unintended childlessness among couples who overcame the initial distress of failing to conceive.



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## Biography

Alina is a Senior Research Fellow in Demography at the UCL [Centre for Longitudinal Studies](#) and was awarded an [Understanding Society Fellowship](#) to investigate the role of early adolescent experiences in explaining differences in school-to-work trajectories between siblings. Her research interests include a range of topics across social demography and reproductive epidemiology, including life course, families and fertility, transition to adulthood. Alina was awarded with ESRC and Advanced Quantitative Methods Scholarship for her PhD research which she completed at the University of Liverpool in 2019. In her [PhD](#), Alina investigated how various life course trajectories ([partnerships](#), [education and employment](#), [residential mobility](#)) of young people in the UK have changed across cohorts born 1974-1990 using Understanding Society data.

**Speaker 2:** Dr Farhan Ali, NIE, Singapore

## A Discovery Science for Educational Research

Educational and psychological research has strong theoretical orientations influencing how we design research, analyze data, write manuscripts and pass on knowledge to graduate students. In my talk, I argue for a complementary discovery science that can build and/or modify theories using data-driven approaches supported by machine learning. In one project, we show how using nonlinear machine learning classifiers uncovered a plethora of complex relationships that can predict student social functioning missed by theory-driven classical analysis (Ali & Ang, 2022). In another project, we use recent advances in unsupervised machine learning to learn and discover complex structural relationships among a wide variety of psychosocial variables, challenging prominent theories of motivation and academic achievement (Ali et al., under review). These efforts are part of an increasingly visible movement in social sciences that eschew simple explanatory theories in favor of discovering the complexities of human functioning.

## Biography

Farhan Ali is an Assistant Professor in the Learning Sciences and Assessment Academic Group, National Institute of Education, Singapore. His current research interests are in social-emotional functioning and links to learning. He addresses the topic using approaches and methods from neuroscience, machine learning, and data mining. His group's work has been published in journals such as *Journal of Youth and Adolescence*, *International Journal of STEM Education* and *Asia Pacific Journal of Education*. He is also a Program Leader for an interdisciplinary Master of Science (Science of Learning) degree program in collaboration with LKC School of Medicine, Nanyang Technological University. More information about Farhan Ali is found [here](#).