

MHIQ Program Workshop

EPIC Health Systems

Centre for Applied Health Economics

Dr Kathryn Modecki

Assoc Professor Sama Low-Choy

Technology is not a substitute for thinking

Thursday 17 October, 12.00–2.00 pm

Griffith University Gold Coast campus – Room G01_2.12
Videoconference – Mt Gravatt campus – Room M24_2.37

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|-----------------|----------------------|
| 12.00 – 12.20pm | Light Lunch |
| 12.20 – 1.00pm | Dr Kathryn Modecki |
| 1.00 – 1.40pm | A/Prof Sama Low-Choy |
| 1.40 – 2.00pm | Q&A Forum |

Please RSVP by Tuesday, 15 October for catering purposes



Abstract

Technology is not a substitute for thinking: Multiverse analysis and forking paths for studying family wellbeing

One challenge we can face as scientists is reacting to media and public concerns, rather than driving policy direction. This workshop combines substantive research questions about the role of technology in family wellbeing with modern approaches to data analyses in a field that begs for sound evidence.

In this workshop, I share a series of approaches that can move substantive questions to a broader level of analysis. In tandem with my co-author, Sama Low-Choy, I will describe multiverse analyses, null simulations (e.g. specification curve analyses), and predictive residuals as options for providing a meta-look at scientific questions. Rather than providing a single statistical result, these methods provide a clearer sense of the ways different measures, scaling, and statistical controls relate to direction, size, and significance of effects.

We will discuss these modern methods to explore how the questions we ask and alternatives we control for ultimately drive our conclusions—in this case, around the risks (or benefits) of smartphone engagement and family wellbeing.

Biographies

Dr Kathryn Modecki's research examines adolescents' developmental pathways towards and away from risky and unhealthy behaviours. She completed a three-year NIMH-funded post-doctoral fellowship at Arizona State University's Prevention Research Centre with advanced training in prevention and statistical methods, including SEM, advanced SEM, HLM, measurement, missing data, and longitudinal modelling. Modecki has received awards and competitive fellowships from the American Psychological Association, the Centers for Disease Control, and the National Institutes of Health in the US. While in Australia, her work has been funded by the Australian Institute of Criminology, YAW-CRC, the Australian Research Council, and the Jacobs Foundation. She is currently a Senior Lecturer in the School

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of Applied Psychology and Menzies Health Institute Queensland and a Faculty Research Associate at the Berkman Klein Center for Internet & Society, Harvard University.

Assoc Prof Sama Low-Choy is Senior Statistician at Griffith, advising and collaborating with researchers using new-to-them statistical methods/computation. Working with the Statistical Advisory Panel, she curates and coordinates uni-wide statistical workshops/seminars on 37 topics, with 17 presenters. She has: helped attract \$4.5m for research, an h-index of 19, and supervised >20 PhDs completed/in-process. She extends methodology for Bayesian statistical and graphical statistical modelling, serves on Scientific/Expert Panels for “ecolab” and on data linkage, and executive committees for SSAI and ASBA.

[Please RSVP here by Tuesday, 15 October](#)

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