

## **Instrument-variabel analyse og dens anvendelse i almen praksis**

Behandlingsvariation i almen praksis kan ved anvendelse af en avanceret statistisk metode skabe evidens for den bedste behandlingspraksis. Det viser et nyt ph.d.-projekt fra Aarhus Universitet, Health. Projektet er gennemført af Maiken Ina Siegismund Kjærsgaard, der forsvarer sin afhandling den 13. januar 2017.

Instrument-variabel analyse er en statistisk metode, som er baseret på den overordnede idé, at et "naturligt eksperiment" (såsom behandlingsvariation) kan fungere som en randomisering i studier på registerdata. Ph.d.-projektet er det første, der kombinerer behandlingsvariation og instrument-variabel analyse til at undersøge, om tidlig behandling af sorg efter tabet af en nær slægtning kan forhindre selvmordsadfærd eller udvikling af psykiatrisk sygdom. Resultaterne viser, at samtaleterapi reducerer risikoen på længere sigt. I studiet har man anvendt en tilgang til instrument-variabel analyse af ventetidsdata samt en algoritme, der kobler patienter og almen praksis i Danmark. Disse blev begge udviklet som en del af ph.d.-projektet.

Forsvaret af ph.d.-afhandlingen er offentligt og finder sted den 13. januar 2017 kl. 13.00 i Samfundsmedicinsk Auditorium, lokale 101, bygning 1262, Aarhus Universitet, Bartholins Allé 4, 8000 Aarhus C.

Titlen på projektet er "Instrumental variable analysis and its application in general practice".

Yderligere oplysninger: Ph.d.-studerende Maiken Ina Siegismund Kjærsgaard, e-mail: maiken@ph.au.dk, tlf. 29 64 38 14.

## **Instrumental variable analysis and its application in general practice**

Treatment variation in general practice can be employed to determine the best practice for treatment by using an advanced statistical method; instrumental variable analysis. This topic is the main focus in a new PhD dissertation published by Health, Aarhus University. The research project was carried out by Maiken Ina Siegismund Kjærsgaard, who will be defending her PhD dissertation on 13 January 2017.

Instrumental variable analysis is a statistical method that is based on the general idea that a "natural experiment", such as treatment variation, may act as a randomization in studies that are actually based on health care registers. The PhD project is the very first to combine treatment variation and instrumental variable methodology to assess whether early treatment of bereavement-related grief may prevent suicidal behaviour or psychiatric illness after the loss of a close relative. Talk therapy was found to reduce the long-term risk. The study used a novel approach to instrumental variable analysis for time-to-event data and an algorithm that links patient and general practices in Denmark. These methodologies were developed as part of the PhD project.

The public defence will take place on 13 January 2017 at 1:00 p.m. in Samfundsmedicinsk Auditorium, room 101, building 1262, Aarhus University, Bartholins Allé 4, 8000 Aarhus C.

The title of the project is "Instrumental variable analysis and its application in general practice".

For more information, please contact PhD student Maiken Ina Siegismund Kjærsgaard, email maiken@ph.au.dk, phone +45 2964 3814.