

Patient-sharing relationships among primary healthcare professionals taking care of patients with mental health problems or substance abuse

INTRODUCTION

Mental health disorders are recognized as considerable public health challenges that require close collaboration between professionals. Developing collaboration requires understanding the structure of how patient care is managed across professionals¹.

AIMS

- To analyze “naturally occurring” healthcare register data of how different professionals are involved in patient care².
- To find out which local and individual factors influence patient-sharing network structure and composition.

CONCLUSIONS

- Professionals seem to work more often within their own occupational group than with other professionals.
- Further research is needed to examine, whether sharing patients also indicate that there is collaboration between the professionals.

RESULTS

- Two professionals were more likely to share a patient if they had similar occupation (homophily hypothesis) and when they worked in the same centre.
- Being a physician predicted having more connections than belonging to other occupational groups.
- Contacts between professionals were more probable when the reason for visit was related to mental health problems or substance abuse.

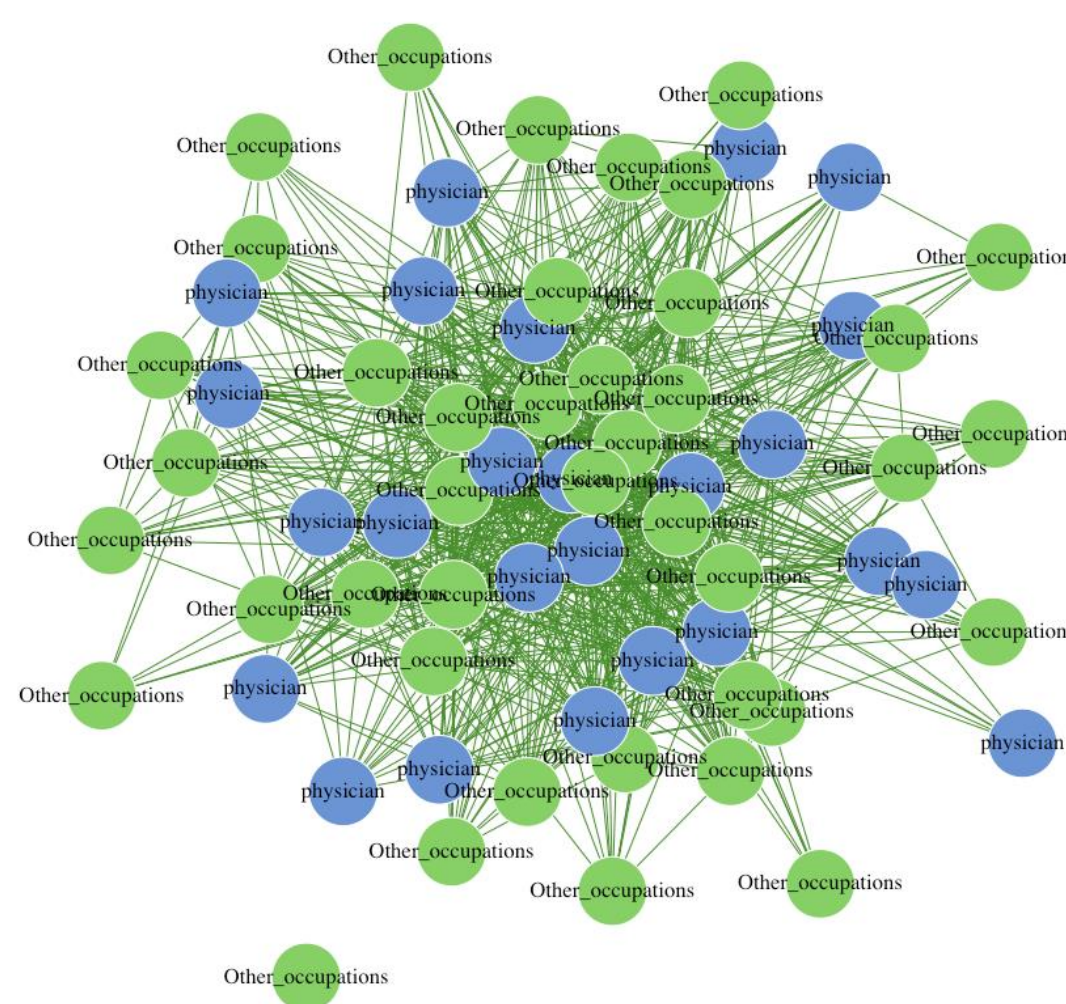


Figure. Illustration of a patient-sharing network in one of the municipalities. Nodes (green and blue circles) represent different unique professionals working in primary health care.

METHODS

Data

Register of Primary Health Care visits (Avohilmo) covers all outpatient primary healthcare visits in Finland. We combined data on adult clients’ visits from eight health and social centres during the year 2021.

We further included to the data only those clients’ visits, who had at least one visit relating primarily to mental health or substance abuse.

Table. Groups of different professionals, number of visits and number of professionals in the data.

Groups of professionals	Visits (N)	Professionals (N)
PHYSICIANS		
senior physicians, ward physicians, specialists etc.	5769	56
general practitioners (GPs)	34820	245
dentists	3931	114
OTHER OCCUPATIONS		
registered nurses etc.	76550	591
public health nurses	12788	242
practical nurses, nurse’s aides	2234	71
dental nurses, dental hygienists etc.	1031	99
physiotherapists, occupational therapists etc.	5841	140
psychologists, psychotherapists etc.	5086	28
social workers, social counsellors etc.	961	15
other professionals (e.g. secretaries, leaders, pharmacists)	2231	14
ALL	151 242	1615



See QR code for more information on the Register of Primary Health Care visits (THL webpage)

Creating the network

The patient-sharing networks were formed using the unique ID codes of the professionals. Two professionals are considered to be connected to each other if they both deliver care to the same patient.

Statistical analyses

We analyzed the potential associations of the network structure and the nodal attributes with nodal formation using Exponential Random Graph Models (ERGM).

References

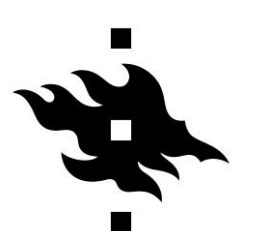
- 1 Bridewell & Dash (2011). *Social Network Analysis of Physician Interactions: The Effect of Institutional Boundaries on Breast Cancer Care*. AMIA Annu Symp Proc.
- 2 DuGoff et al. (2018). *A scoping review of patient-sharing network studies using administrative data*. TBM.



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