Societal costs of depression and outcomes of care in Finland

AUTHORS: Petri Näätänen,[1] Jonne Juntura,[2] Grigori Joffe,[1] Jesper Ekelund,[1] Mikko Nuutinen,[3] Riikka-Leena Leskelä,[3] Tetsuro Ito,[4] Benoît Rive,[5] Yordan Godinov,[6] Irene Eriksson,[7] Paulus Torkki[2]

AFFILIATIONS: [1]Department of Psychiatry, Helsinki University Hospital (HUS), Helsinki, Finland; [2]University of Helsinki, Helsinki, Finland; [3]Nordic Healthcare Group, Helsinki, Finland; [4]Janssen EMEA, High Wycombe, UK; [5]Janssen EMEA, Paris, France; [6]Janssen EMEA, Sofia, Bulgaria; [7]Janssen EMEA, Solna, Sweden

Introduction

- Globally, an estimated 12 billion working days are lost annually to depression and anxiety, costing US$ 1 trillion/year in lost productivity.[1]
- Helsinki University Hospital (HUS) Department of Psychiatry is currently moving toward value-based healthcare; this study assessed the current outcomes and costs of care to inform decision making on resource allocation.
- Here, preliminary results of this assessment are presented.

Objective

- To assess the current outcomes and costs of care for Finnish patients with depression to inform decision making on resource allocation.

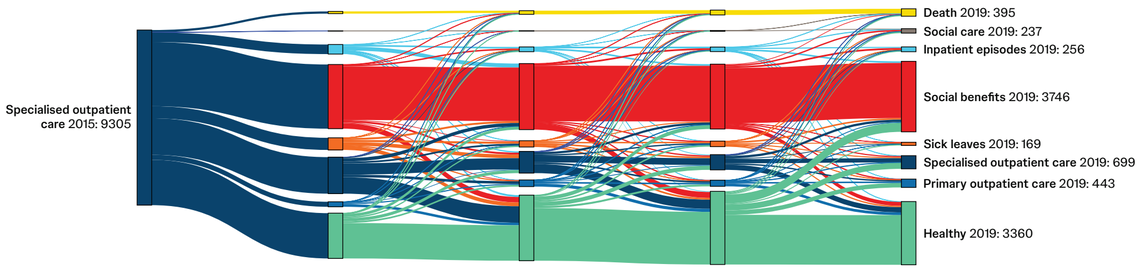
Methods

- This was a cohort study leveraging Finnish patient data from 19 different registries during 2014–2020.
- Patients aged 20–79 with a depression diagnosis recorded by specialised psychiatric care (SPC), comprising HUS Psychiatry and psychiatry of the Helsinki City, in the Helsinki-Uusimaa region in 2015 were included. Patients were excluded if they had a depression diagnosis given by SPC within the previous year.
- The cost (comprising mental, somatic health, and social care and benefits) for each patient was calculated based on the status assigned to them representing the worst outcome they experienced within each calendar year.
- Annual cost distribution was stratified by age group, gender, and number of psychiatric comorbidities.

Results

- In the fifth year after the first visit, 3360 patients did not require any services or benefits and were considered healthy (**Figure 1**).
- Baseline characteristics of the included patients are reported in **Table 1**.
- The cost distribution of depression care by age, gender, and psychiatric comorbidity can be seen in **Figure 2**.
- Indirect costs were substantial, amounting to almost 50% of the total cost for patients aged 40–59 years, whereas there was a greater proportion of specialised outpatient care costs among younger groups in the first years of follow up (**Figure 2A**).
- Inpatient costs were higher for patients with three psychiatric comorbidities (**Figure 2B**).
- Costs per patient were higher for men than women, especially for inpatient care, sick leave, and disability pension (**Figure 2C**).

Figure 1: Patient status over the follow-up period according to service use



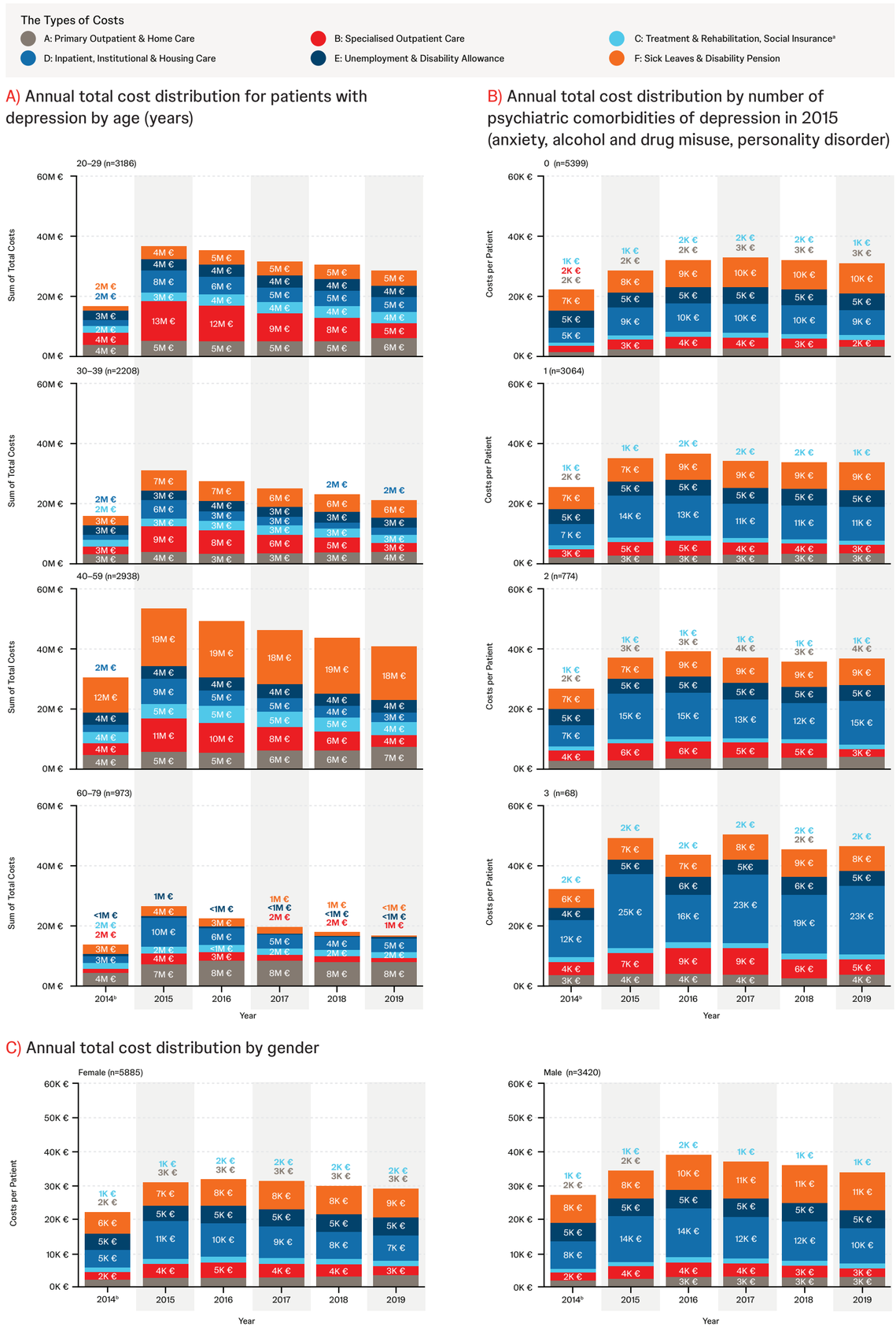
Data labels are reported as 'outcome category' year: number of patients. The 5-year outcomes (shown in the right-most column) were categorised as follows, from 'worst' to 'best' outcome: 1) death, 2) requiring social services, 3) requiring inpatient care, 4) having continuous social benefits, 5) taking sick leave,[a] 6) requiring specialised outpatient care, 7) requiring primary outpatient care, and 8) not using any services or benefits (healthy). For a given calendar year, each patient was assigned a status based on the 'worst' outcome they experienced.
[a]Sick leave was defined as a period longer than 10 days but shorter than 300 days.

Table 1: Baseline characteristics of included patients

	All patients (N=9305)
Age, years, mean (standard deviation)	43.7 (14.6)
Gender, male, n (%)	3420 (36.8)
Depression severity[a], n (%)	
Mild to moderate	7783 (83.6)
Severe	1522 (16.4)
Number of psychiatric comorbidities, n (%)	
0	5399 (58.0)
1	3064 (32.9)
2	774 (8.3)
3+	68 (0.7)
Type of psychiatric comorbidity, n (%)	
Anxiety	2362 (25.4)
Alcohol and drug misuse	799 (9.0)
Personality disorder	610 (6.1)

[a]The depression severity scale was formed from ICD10 diagnosis. Mild to moderate depression was defined as levels F32/F33.0 and F32/F33.1; severe depression was defined as levels F32/33.2 and F32/33.3.

Figure 2: Annual total cost distribution of depression care



[a]Including doctor visits and other private treatment, medical and occupational rehabilitation, prescription medicine, and travel costs for treatment and rehabilitation; [b]Service use before the depression diagnosis. Costs rounded to the closest million or thousand.

Conclusions

The data reported here enabled an estimation of the costs and outcomes of care, furthering understanding of the complex health and social care pathway of depression.

The low proportion of healthy patients after 5 years indicates the need for redesigning of services.

Treatment and rehabilitation costs were consistent throughout follow-up; patient care thus may not be optimally following the principles of value-based healthcare and national guidelines.[2] Future work will assess where in the care pathway efforts should be allocated to improve patient outcomes. For that, collecting additional, proximal patient- or professional-reported measures regarding patient symptoms, quality of life, and functional level throughout treatment is needed.

ABBREVIATIONS

HUS: Helsinki University Hospital;
SPC: specialised psychiatric care.

AUTHOR CONTRIBUTIONS

Substantial contributions to study conception/design, or acquisition/analysis/interpretation of data: **PN**, **JJ**, **GJ**, **JE**, **MN, RLL**, **TI**, **BR**, **YG**, **IE**, **PT**; Drafting of the publication, or revising it critically for important intellectual content: **PN**, **JJ**, **GJ**, **JE, MN, RLL, TI, BR**, **YG**, **IE**, **PT**; Final approval of the publication: **PN**, **JJ**, **GJ**, **JE**, **MN**, **RLL**, **TI**, **BR**, **YG**, **IE**, **PT**.

DISCLOSURES

PN, **JJ**, **JE**, **PT**: Authors did not report any conflicts of interest. **GJ**: No conflict of interests to disclose. **MN**, **RLL**: Employees of Nordic Healthcare Group received a consulting fee for the work. **TI**, **BR**, **YG**, **IE**: Employees of Johnson & Johnson; hold Johnson & Johnson company stock/stock options.

ACKNOWLEDGEMENTS

This study was undertaken under an agreement signed by HUS, the University of Helsinki and J&J, intending to collaborate on value-based healthcare. Costs associated with this study were funded by J&J, additional work, including data linkage, data management, and data analysis, was funded by HUS. The authors acknowledge Libby Claxton, Costello Medical, Manchester, UK, for medical writing and editorial assistance, and the Creative team at Costello Medical for graphic design assistance. The authors acknowledge Karita Salo for contributions to the analysis and Outi Isomeri for coordination and managerial support in the research team. All costs associated with development of this poster were funded by Janssen.

Neuropsychiatry

REFERENCES

1. World Health Organisation (WHO). Mental health at work [Fact sheet]. 2024. https://www.who.int/news-room/fact-sheets/detail/mental-health-at-work (Last accessed 13 September 2024);
2. Helsinki: The Finnish Medical Society Duodecim. Depression. Current Care Guidelines. 2024. https://www.kaypahoito.fi/hoi50023 (Last accessed 13 September 2024).

Presented at ICHOM 2024 | Amsterdam, Netherlands | 21–22 October 2024

NEJM Catalyst

ICHOM 2024
21 - 22 October | Beurs van Berlage, Amsterdam