

A Cost-Of-Illness Study of the Economic Burden of Obsessive-Compulsive Disorder in the United Kingdom

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OBJECTIVES

- The aim of this research was to evaluate the annual cost-of-illness (Col) of obsessive-compulsive disorder (OCD) in the UK, to the healthcare provider, patients, informal caregivers, and wider society.

BACKGROUND

- OCD is a chronic and debilitating psychiatric condition, with an estimated 12-month prevalence of 0.7–3.0% in adults and 0.25% in children.¹⁻²
- First-line treatment options include cognitive behavioural therapy (CBT) and pharmacological intervention, with second-line inpatient care available for treatment-resistant cases.⁴ However, a considerable proportion of patients with OCD do not receive any form of treatment.⁵
- Moderate or severe symptoms are reported for the majority of diagnosed patients, with detrimental impacts on work status, relationships and wellbeing.⁶ Comorbidities such as depression further reduce quality-of-life.⁷
- The clinical and humanistic impact of OCD gives rise to an economic burden, through treatment costs, lost productivity and miscellaneous out-of-pocket expenditure.⁴

METHODS

Model Structure and Approach

- A retrospective Col analysis was performed to capture the economic burden associated with OCD in the UK over a one-year time horizon.
- The population was stratified by age group (children, adults, elderly), symptom severity (mild, moderate, severe, according to the Yale-Brown Obsessive Compulsive Scale [Y-BOCS] and Children's Y-BOCS [CY-BOCS]) and treatment received (including no treatment).
- Costs were explored from the following two perspectives:
 - UK healthcare provider: Treatment costs to the National Health Service (NHS) and Personal Social Services (PSS) were included. These costs were only considered for patients receiving treatment (excluding private therapy);
 - Societal perspective: Private therapy costs and out-of-pocket expenditure costs were captured for all age groups. Lost productivity costs were captured for the adult subpopulation only.
- These costs were explored in the base-case analysis. Other factors that contributed to the economic burden were explored as scenario analyses, such as the treatment costs for comorbid depression.

Model Inputs

- The annual number of OCD patients was informed by UK-based survey data (0.35% in children, 1.60% in adults, 0.30% in the elderly).^{8,9}
- Other epidemiological inputs were derived from Office for National Statistics (ONS) records, national surveys, and targeted literature searches.
- Survey results estimated that 54% of adult patients with OCD were actively treated by the UK healthcare provider, and this estimate was applied to all patients in the base-case analysis.⁸
- Clinical inputs, including the distribution of treatment types for each symptom severity and age group, were identified through targeted literature searches, or informed by expert clinician opinion and validated independently.
- Treatment cost inputs were sourced from the Personal and Social Services Resource Unit (PSSRU) and the drugs and pharmaceutical electronic market information tool (eMIT).
- Other inputs were sourced from targeted literature searches, such as inputs for lost productivity and out-of-pocket expenditure.

RESULTS

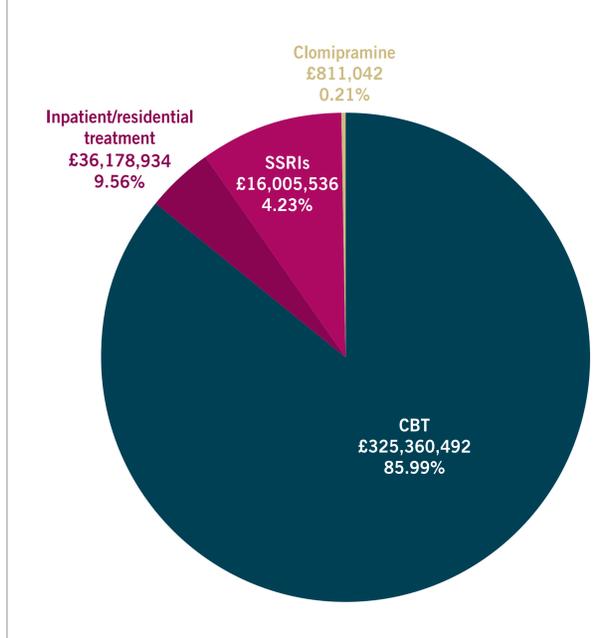
Overall Col

- The base-case analysis estimated a total annual Col of OCD of £378 million to the UK healthcare provider rising to £5.1 billion when a societal perspective was considered.

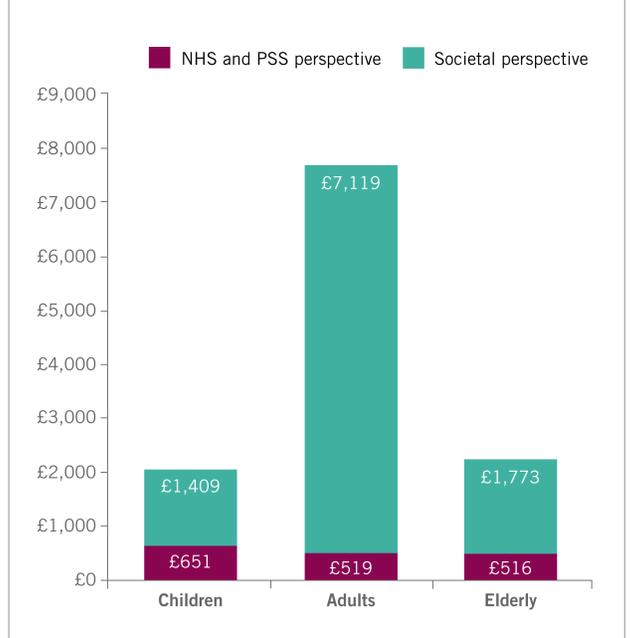
Treatment Costs

- When considering direct costs to the healthcare provider, the base-case analysis revealed CBT to be the largest contributor. (Figure 1).
- The total annual cost of care was greater for adult patients than for children and elderly patients (£335 million versus £23.7 million and £19.4 million, respectively), driven by the higher prevalence of OCD in the adult age group.
- The cost of care per patient was highest for child patients (£651), versus adult and elderly patients (£519 and £516, respectively), as children were more likely to be treated with CBT (Figure 2).
- The annual cost of care per patient increased with severity, as expected. The cost for severe patients was 147% higher than for moderate patients, and 417% higher than for mild patients, due to increasing first-line and second-line healthcare resource utilisation (Figure 3).

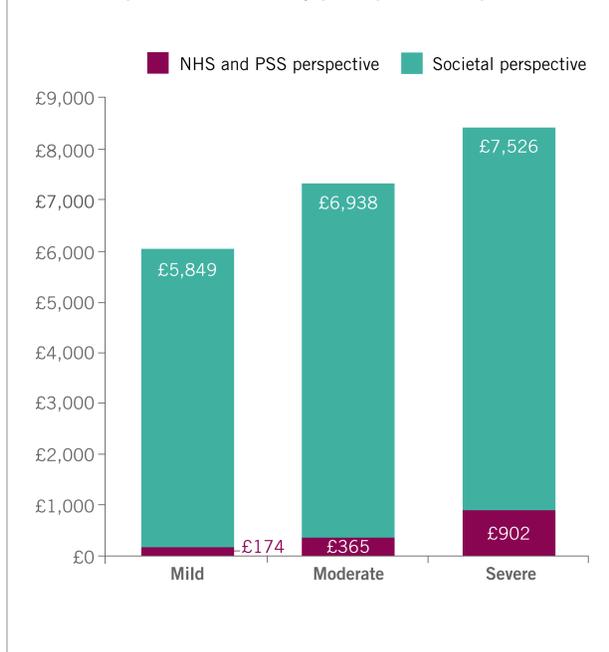
1 Treatment costs disaggregated by treatment type, per year



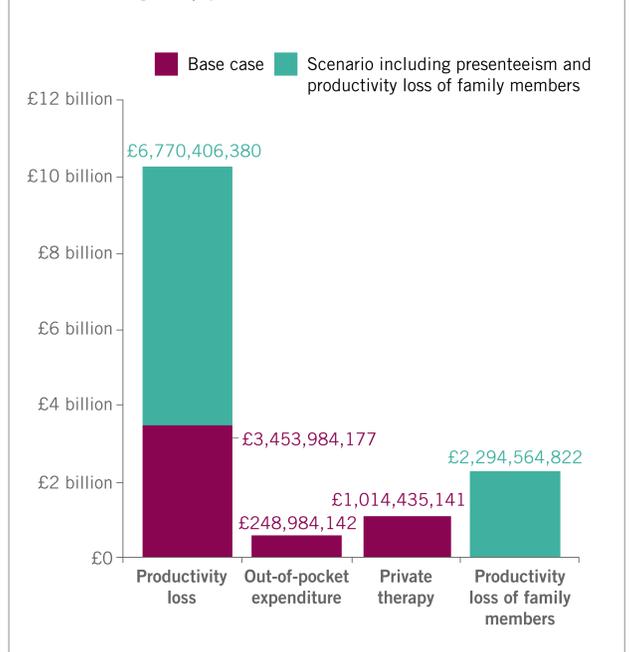
2 Treatment costs disaggregated by age, per patient per year



3 Treatment costs disaggregated by symptom severity, per patient per year



4 Societal costs disaggregated by cost category, per year



CBT: cognitive behavioural therapy; NHS: National Health Service; PSS: Personal Social Services; SSRI: selective serotonin reuptake inhibitor.

- Scenario analyses suggested that including additional treatment costs due to comorbid depression increased the cost to the UK healthcare provider to £878 million.

Societal Costs

- The base-case analysis estimated a total societal cost of £4.7 billion. 73.2% of this cost was attributed to work absenteeism amongst OCD patients, while the cost of private therapy contributed 21.5% (Figure 4).
- Scenario analysis suggested that including additional societal costs due to presenteeism and lost caregiver productivity increased the total Col to £10.7 billion.
- When societal costs were included, the cost per patient was higher for adults, as expected due to their participation in the work force (Figure 2).

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CONCLUSIONS

- The results of the analysis are likely an underestimate of the true cost of OCD, as conservative prevalence estimates were used and certain costs were excluded from the base-case model; inclusion of some of these costs in scenario analyses substantially increased the Col.
- The economic burden of OCD in the UK was found to be substantial and extends beyond direct treatment costs.
- These data highlight the need for further research into alternative treatments with greater efficacy, to reduce the clinical and humanistic disease impact and resulting Col.

