EE646

Waiting Times and Cost-Effectiveness: An Early Case Study in Cognitive Behavioural Therapy for Anxiety

Naylor R[1], Malcolm R[1]

[1] York Health Economics Consortium, Enterprise House, Innovation Way, University of York, York, YO10 5NQ

BACKGROUND AND OBJECTIVES

Treatment waiting times were already a recognisable and common issue in many areas of the UK healthcare system before the onset of the COVID-19 pandemic. The pandemic has only exacerbated the issue, particularly within mental health services.

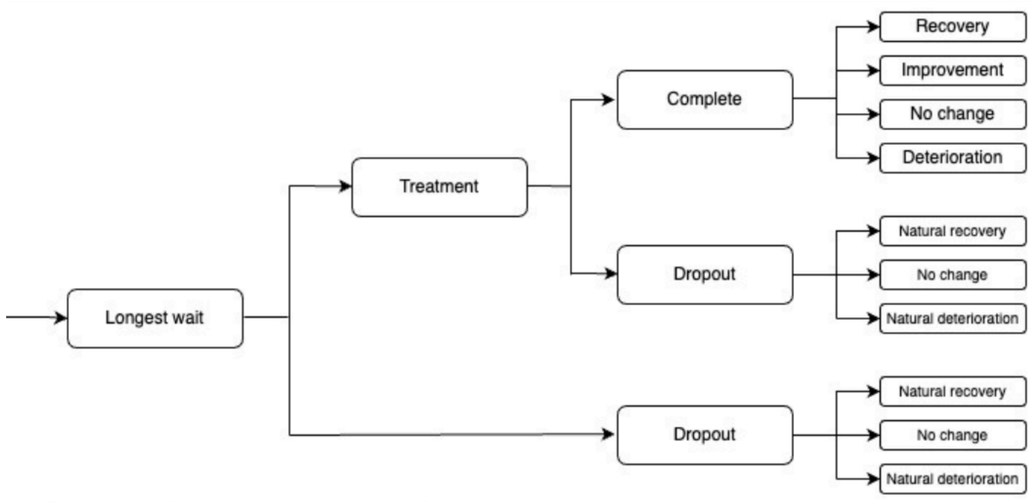
Generalised anxiety disorder is one of the most common mental health problems, affecting up to 6% (over 4 million) of people in any given week in England [1]. The length of waiting times for treatment is likely to have a significant impact on clinical and economic outcomes, including treatment costs, waiting costs and health related quality of life. Improving Access to Psychological Therapies (IAPT) is a programme introduced in 2008, designed with the intention of creating more accessible treatment for common mental health problems, including anxiety. However, the Royal College of Psychiatrists state that waiting lists within mental health services are less visible due to fewer NHS waiting time standards [2]. This implies that waiting times within mental health services may be overlooked by policymakers and thus the problem could continue to escalate.

This research investigated the impact that waiting times may have on cost-effectiveness results, focusing on cognitive behavioural therapy (CBT) treatment for anxiety. This was investigated through the development of an early economic model, which quantified the impact of prolonged waiting times on cost-effectiveness results.

METHODS

A semi-systematic literature review was undertaken to establish the existing research on waiting times in healthcare, costs associated with waiting times, and the relationship between waiting times and cost-effectiveness in healthcare, specifically mental health. A decision tree structure was used to model three comparator waiting times: the clinical commissioning groups (CCGs) with the shortest, average and longest waiting times for anxiety-related CBT treatment in 2020/21. Figure 1 shows the model structure schematic. A one-year time horizon was used to estimate the expected costs and quality-adjusted life years (QALYs) associated for each comparator. The key input parameters are shown in Table 1. Cost-effectiveness outcomes were measured as incremental cost-effectiveness ratios (ICERs), net monetary benefits and net health benefits, using the National Institute for Health and Care Excellence (NICE) threshold of £20,000 per QALY.

Figure 1: Model structure schematic*



* Structure identical for other wait time comparators

Table 1: Key model input parameters

Resource use	Value	Reference
GP referral rate	26%	NHS (2021) [3]
Proportion who visit GP	50%	RCPSYCH (2020) [4]
Proportion who visit A&E	11%	RCPSYCH (2020) [4]
Proportion who contact crisis services	38%	RCPSYCH (2020) [4]
Costs		
Referral (self)	£0	Assumed
Referral (GP)	£40.44	PSSRU (2021) [5]
Pre-assessment appointment	£132.00	PSSRU (2021) [5]
CBT treatment (per session)	£112.49	PSSRU (2021) [5]
Follow-up appointment	£3.84	PSSRU (2021) [5]

RESULTS

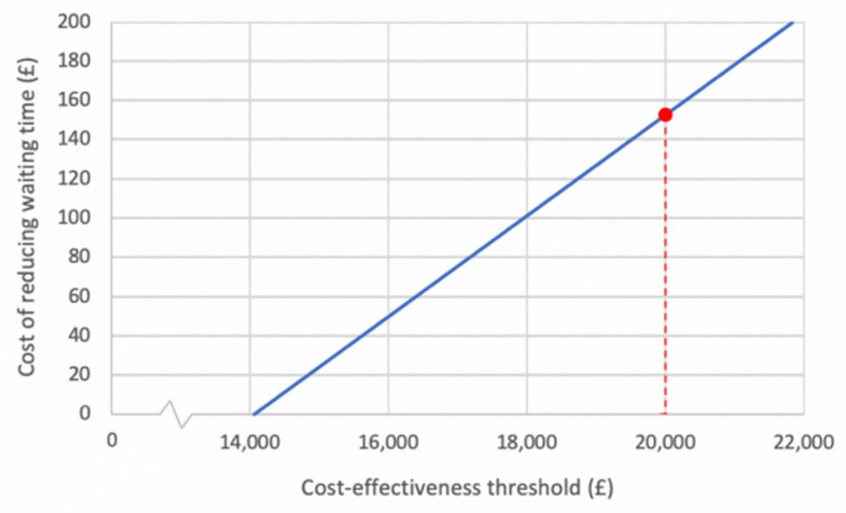
The model suggested that CBT for anxiety is cost-effective when waiting times are shorter. The results are listed in Table 2. Despite having the highest expected cost, the shortest waiting time offers the highest net monetary benefit (NMB) at a threshold of £20,000 per QALY. This result remained robust throughout various scenario and sensitivity analyses.

Scenario analyses indicated the conservative nature of the base case and investigated wider societal benefits of shorter waiting times. Additional analysis estimated that the CCGs with the longest waiting times (NHS Bristol, North Somerset and South Gloucestershire) could invest £152.88 per person towards reducing waiting times whilst remaining cost-effective. The result of this analysis is shown in Figure 2.

Table 2: Base case results

	Costs	QALYs	ICER	NMB
Shortest wait	£933.61	0.634	£12,663	£11,747.56
Average wait	£818.00	0.625	£14,833	£11,680.58
Longest wait	£571.41	0.608	£0	£11,594.68

Figure 2: Break even point



CONCLUSIONS

Lengthy waiting times were found to have a significant negative impact on the cost-effectiveness results of CBT for anxiety. Moreover, there are wide societal and health benefits that can be achieved by reducing waiting times, particularly within mental health services. This research has emphasised the importance of the inclusion of waiting times within economic evaluations by regulatory bodies. In the interest of public health, policymakers should focus investment into reducing waiting times.

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CONTACT US

rebecca.naylor@york.ac.uk

Telephone: +44 1904 328158

Website: www.yhec.co.uk

http://tinyurl.com/yhec-facebook

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