

Cost-utility of behavioural activation (BA) for mitigating psychological impacts of COVID-19 on socially isolated older adults with depression and multiple long-term conditions compared with usual care

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BACKGROUND

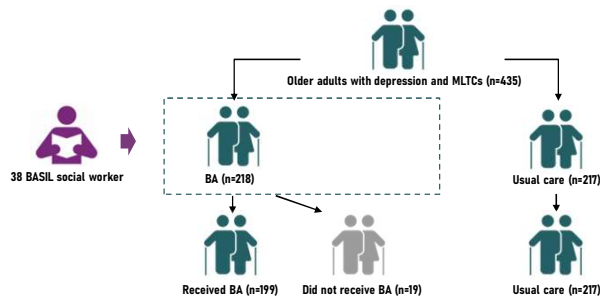
- Depression comorbid with multiple long-term conditions (MLTCs) is a pressing public health challenge for older adults, made worse by the social isolation caused by COVID-19.



METHODS

Study population

Older adults with depression and MLTCs who were socially isolated were recruited in 11 sites in the UK and remotely randomised to the intervention group (BA) or the control group (usual care) (n=435).



Data collection

- Health outcomes: EQ-5D-3L and SF-6D
- Resource use: intervention and service use costs based on NHS and personal social services (NHS/PSS) and societal perspective. All costs were expressed in 2022 UK sterling.
- All the data were collected at baseline and 1, 3, 6 months follow-up.

Analysis

- Missing data were imputed using multiple imputation.
- Incremental cost-effectiveness ratio (ICER) was calculated.
- Non-parametric bootstrapping (5,000 iterations) was conducted to capture the uncertainty around the ICER estimates.

Primary and sensitivity analyses

- Primary analysis: costs measured from the NHS/PSS perspective and QALY measured by EQ-5D-Y-3L.
- A set of sensitivity analyses was conducted to test the robustness.

DISCUSSION

- This is the first economic evaluation of BA in socially isolated older adults with both depression and MLTCs.
- The findings are relevant for commissioners scaling BA nationally, with potential NHS cost savings exceeding £75 million during crises like the COVID-19 pandemic. However, whether the results could generalize to non-COVID environment needs further exploration.
- The improvement in HRQoL might be considered larger if the timeliness and convenience of BA during COVID-19 could be quantitatively captured.

CONCLUSIONS

Compared to usual care, BA demonstrated a slight cost reduction while maintaining similar QALY improvements for older people with depression and MLTCs facing isolation over 12 months.

OBJECTIVES

- Assess the cost-effectiveness of BA compared to usual care for older adults with depression and MLTCs during COVID-19 restrictions through the Behavioural Activation in Social Isolation (BASIL+) trial - ISRCTN63034289.



RESULTS

Baseline characteristics	Base case (n=435)		Complete case (n=281)	
	BA (n=218)	Usual care (n=217)	BA (N=125)	Usual care (N=156)
Average age (years)	74.7 (6.4)	75.7 (6.9)	74.5 (6.2)	75.3 (6.8)
Gender - male, n(%)	81 (37.2%)	84 (38.7%)	41 (32.8%)	60 (38.5%)
Baseline EQ-5D-3L utility, mean (sd)	0.61 (0.27)	0.62 (0.28)	0.63 (0.26)	0.61 (0.28)
Baseline cost (£), mean (sd)	487.8 (580.3)	579.7 (701.1)	497.1 (672.7)	575.5 (732.9)

- Older adults in the BA group incurred slightly less costs (-£62.3, 95% CI -£120.4 to 230.7) and maintained similar improvement in QALYs (0.007, 95% CI -0.036 to 0.022) (see [Figure 1](#)).

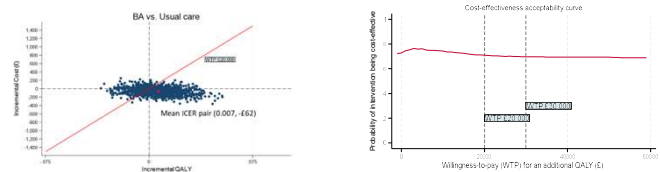


Figure 1 Cost-effectiveness plane and CEAC of primary analysis

- Sensitivity analyses: results consist with primary analysis ([Figure 2](#))

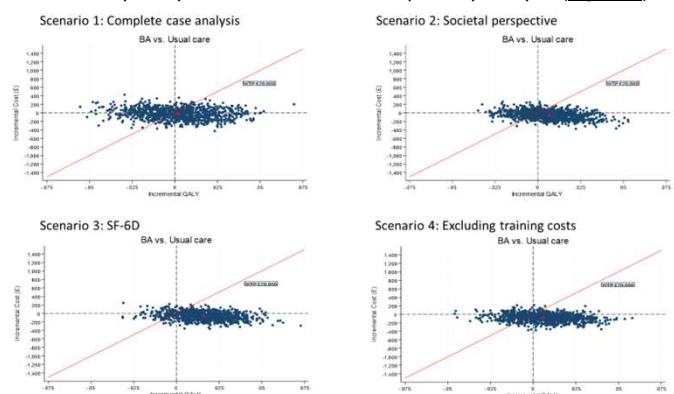


Figure 2 Cost-effectiveness planes of sensitivity analyses