

App-delivered gut-directed hypnotherapy halves the long-term costs associated with managing irritable bowel syndrome (IBS) symptoms and improves work productivity.

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Background

App-delivered gut-directed hypnotherapy is cheaper and more accessible than face-to-face therapy and improves gastrointestinal symptoms and psychological outcomes in patients with irritable bowel syndrome (IBS).¹ It is unknown whether the observed physical and psychological improvements translate to changes in the economic burden of disease. Economic consequences of IBS are considerable and include those associated with healthcare system costs, direct management of symptoms, and from the loss of productivity at work.

Aim

To assess the economic impact of the app-delivered gut-directed hypnotherapy program, *Nerva*, including costs associated with the management of IBS symptoms and the loss of productivity related to absenteeism and presenteeism at work.

Methods

Patients with self-reported IBS who completed *Nerva* between June 2021 and June 2022 and provided symptom outcome data were included for analysis. The app guided users through the 6-week gut-directed hypnotherapy program which included daily gut-directed hypnotherapy, psychoeducation and breathing exercises. Economic outcomes were assessed at baseline, program completion and 6 months post program completion. Direct costs associated with the management of IBS symptoms were evaluated by asking users to estimate how much money they *had* spent on their IBS over the previous 6 months at baseline and 6 month post program completion. Users were also asked to estimate how much money they *would* spend over the coming 6 months at program completion. Work productivity was scored using the work productivity and activity impairment questionnaire (WPAI). Gastrointestinal symptoms were assessed using a 100-mm visual analogue scale.

Results

Gastrointestinal symptom data was obtained from 17,857 users. Majority were female (77.5%), even distribution of age and IBS symptom duration. Abdominal pain reduced from 58 (95% CI 57-59) mm at baseline to 35 (34-36) mm at program completion ($p<0.001$). 59% of patients responded ($>30\%$ reduction in abdominal pain). Economic data was obtained from 4,206 users. Money spent on managing IBS symptoms reduced from (baseline \$1,259 (95% CI 792-1,727) to completion \$644 (354-935); $p=0.029$) and remained stable at 6-months (\$502 (380-\$623); $p=ns$). *Nerva* users reported significant long-term improvements in absenteeism,

presenteeism, work productivity loss and impairment in performing daily activities post program completion (Table 1).

Conclusions

App delivered gut-directed hypnotherapy is associated with an approximate halving of the long-term costs associated with managing IBS and improves work absenteeism, presenteeism and overall work productivity. Economic effects were maintained in the long-term and highlight the enduring efficacy of Nerva. App delivered gut-directed hypnotherapy should be considered a viable gut-brain behavioural therapy amongst IBS populations.

References

1. Peters, S., P. Gibson, and E. Halmos. "Mobile app-delivered gut-directed hypnotherapy significantly reduces symptoms of irritable bowel syndrome: Is this the way of the future?." *J Gastroenterol Hepatol* 2021; 36: 111.