



## **Impact Evaluation Results**

### **Background**

Interpersonal therapy (IPT) and cognitive behavioral therapy (CBT) are recommended by the U.S. Preventive Services Task Force in the US and the National Institute for Health and Care Excellence in the UK to prevent and treat postpartum depression. These therapeutic techniques have been tested and proven to reduce depression for women in the perinatal period across income groups and cultures. Postpartum depression is a major risk factor for child neglect, the most common form of maltreatment and why many young children are separated from their mothers. 85% of depressed mothers who would benefit from care and treatment do not receive it.

Canopie sourced content from both in-person and digital CBT and IPT programs supported by strong evidence-bases and adapted this content to a customised, digital, audio-based program. The content is grounded in inclusive, practical examples framed by compassion-focused therapeutic techniques designed to reduce feelings of stigma and shame, which are common barriers to seeking treatment.

From April to May 2021, 100 new mothers (children < 1) with English-language proficiency were recruited to participate in a randomised control trial (RCT) to test the program's effectiveness to reduce symptoms of depression using clinically validated scales.

Additional characteristics of the group:

- N=51 (treatment) n=49 (control)
- 59% categorised as low-income
- Participants' countries of origin included: U.S., UK, Canada, Mexico, Poland, South Africa, Zimbabwe, Haiti, Germany, Israel, Estonia, Greece

### **Study Design**

The treatment group completed a baseline survey with the Edinburgh Postnatal Depression Scale (EPDS). They were then enrolled into Canopie's audio program and were asked to engage with 2 hours of Canopie's sessions over the course of two weeks. They received 2 emails with light guidance as well as a letter of gratitude written from the perspective of their baby. They then completed an endline survey which included the EPDS as well as additional quantitative metrics and qualitative feedback. The control group completed the baseline survey and endline survey with the EPDS.



## Results

At the 2-week follow-up, both the treatment and control groups completed the EPDS:

### **Treatment**

	<b>Baseline</b>	<b>Endline</b>
EPDS score between 10 - 13	25.5% (13)	3.9% (3)
EPDS score $\geq$ 14	31.4% (16)	1.9% (1)

79.3% of participants with possible depression (EPDS scores  $>10$ ) had a positive change in their mood score equal to or greater than the reliable change index of 4. 100% of participants who had EPDS scores  $>14$  had a positive change in their mood score greater than 4.

**The treatment effect size of the program was Hedges (g) of .68 with a p-value of .00015.** This indicates that the Canopie program compares favorably to other perinatal mental health interventions analyzed in meta-analyses, including face-to-face CBT (.642,  $p < .001$ ), psychodynamic therapy (.526,  $p = .014$ ), counseling (.418,  $p = .014$ ), and education (.100,  $p = .457$ ).

### *Perceived Value*

1. 98% (50) of participants said they would recommend the program to someone else, and (1) participant responded they were "not sure".
2. 100% of participants responded that the program helped them feel a little to a lot better
  - a. 55% responded that it helped them feel a lot better
  - b. 45% responded that it helped them feel a little better

Illustrative feedback:

Quote 1:

*"I found the program to be very positive and Anna's voice to be very calming. It's great to hear why humans sometimes have dark thoughts and to be reassured that we are not alone in this and that it's not a bad thing. With both my 7 week old and my 2 and a half year old, I have had fleeting dark thoughts that I could hurt them. NOT THAT I WOULD WANT TO, but that it is technically possible and then felt awful that*



*the thought ever entered my head in the first place, as it wasn't something I was in control of. It's really good to understand why we have these kind of thoughts and how to manage them.*

*I have done CBT in the past to manage anxiety and low self esteem however I did not feel like the techniques / information I was given worked for me. This course was a lot more on my level and relatable. I just wish I remember to take the techniques forward with me, as I'm prone to forgetting things like that when I need them. It's also great to be mindful that others might be going through something of their own and how to approach my relationships with them.*

*Thank you for this opportunity, it's been very beneficial to me."*

Quote 2:

*"I've learned that how I'm feeling isn't my fault. It doesn't mean I'm broken, and I'm not alone in feeling this way. It helped me to recognise ways that I'm perpetuating negativity while blocking out positivity and how to change that for myself. It's improved my mood and stress levels with my baby."*

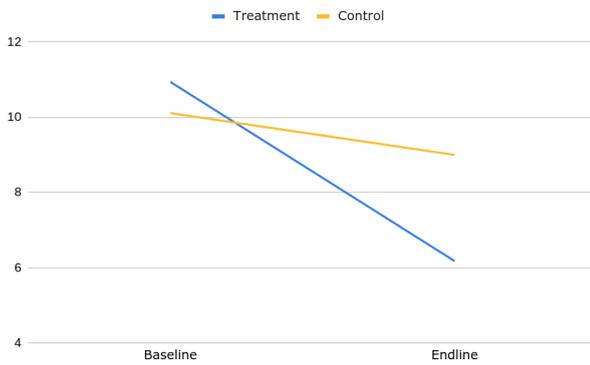
Control

	<b>Baseline</b>	<b>Endline</b>
EPDS score between 10 - 13	20.4% (10)	12.2% (6)*
EPDS score $\geq$ 14	28.6% (14)	24.5% (12)

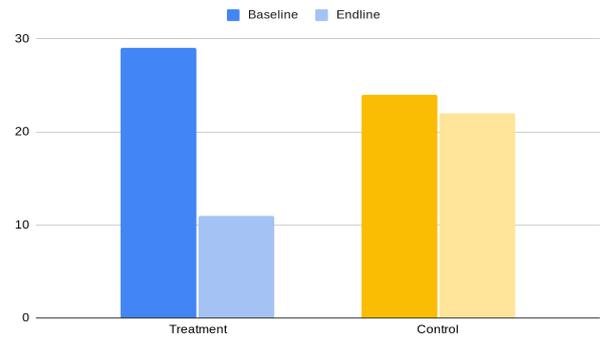
\*Five of the six participant scores increased, and two scores had a greater change than the reliable change index of 4. No statistically significant change was observed in the control group.

Discussion

Canopie tested a low-touch version of its program. Even with more limited guidance, support, and content, Canopie's program is an effective intervention for significantly reducing clinical symptoms of depression, giving the organisation a strong foundation for building on these results and further tailoring the program for participants depending on the severity of symptoms and other challenges they may be experiencing.



**Figure 1:** Change in mean depression (Edinburgh Postnatal Depression Scale) in treatment and control groups. Hedges (g) treatment effect of .68. Average 4.8 pt reduction in depression in the treatment group. There was no significant change in the control group.



**Figure 2:** Change in participants with depression (i.e. scores >10 in the Edinburgh Postnatal Depression scale). 79.3% of participants with possible depression (EPDS scores >10) had a positive change in their mood score equal to or greater than the reliable change index of 4.