

# Digital Cognitive Behavioral Therapy: A Novel Approach to Support High Risk Pregnant Women

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Abhishek Shah<sup>1</sup>, Dr. Sneha Damse<sup>1</sup>, Dr. Premalatha.T<sup>1</sup>, Karine Soulat<sup>1</sup>, Keshavi Khanna<sup>1</sup> | <sup>1</sup>Wellthy Therapeutics Pvt Ltd, Mumbai, India

### Introduction

- Threatened Miscarriage(TM) and Recurrent pregnancy loss(RPL) are one of the most frustrating and difficult areas of reproductive medicine which may have a significant psychological impact on women<sup>1</sup>.
- The expectant mother goes through a variety of emotional and psychological experiences during a high-risk pregnancy that may be associated with adverse pregnancy outcomes.<sup>2</sup>

### Aim

- This study explores the real-world effectiveness of Wellthy CARE digital therapeutic (WDTx) platform in maintaining mental wellbeing of high-risk pregnant women through CBT therapy.

### Methods

- Duration

Non randomized controlled trial (9 months)

Participants

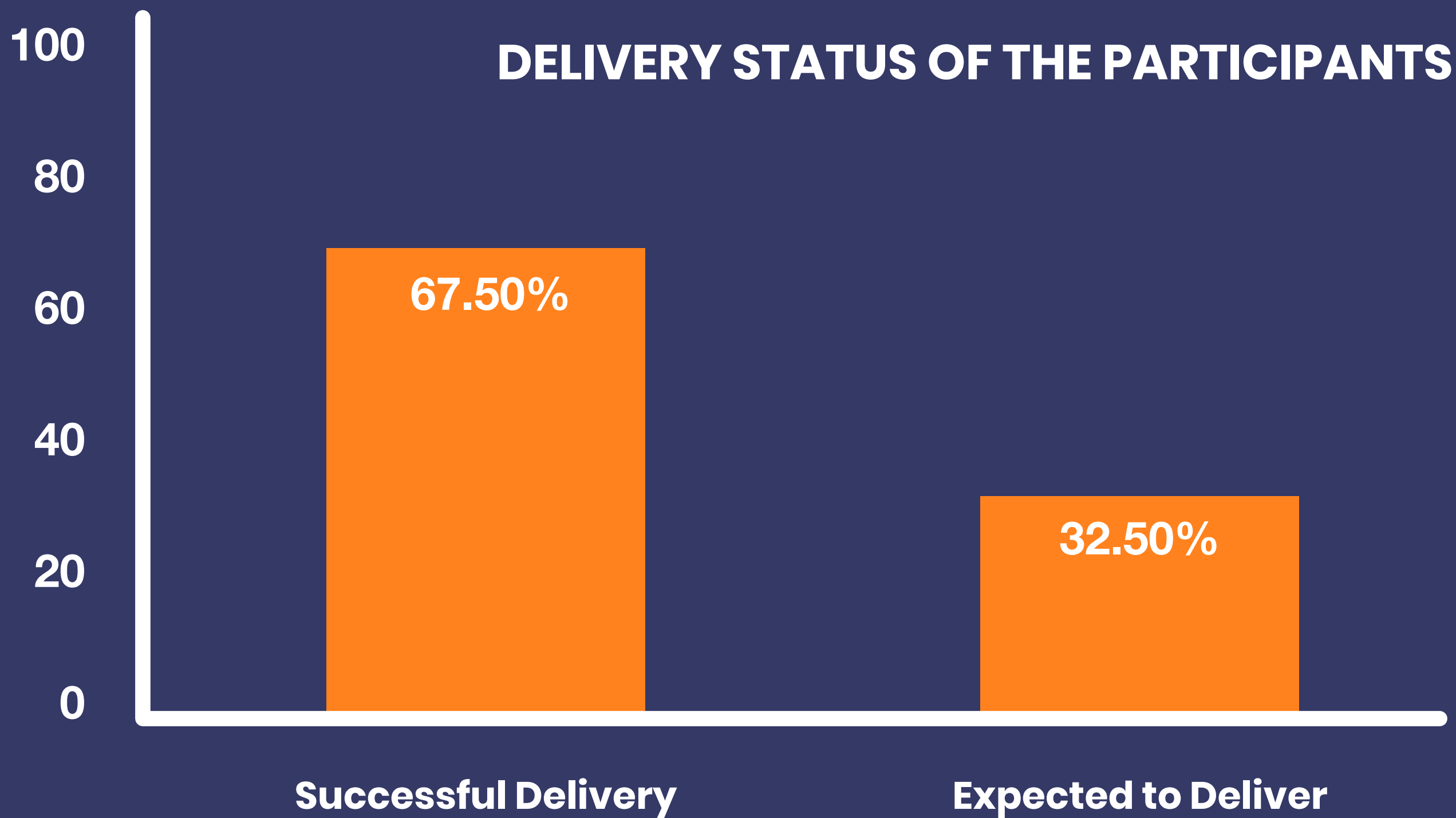
2 Cohorts of 20 each
- This study included a patient support program delivered by a multidisciplinary team of health professionals through the WDTx platform .
  - The program included interventions such as Health coach chats and calls, Lifestyle counseling, CBT counseling, Symptom tracking and in-app educational content.
  - The Short Warwick-Edinburgh Mental Well-being Scale (SWEMWBS)<sup>3</sup> was used to assess psychological functioning and subjective well being.
  - 40 pregnant women diagnosed with RPL and TM who were stable and willing to participate were recruited by convenience sampling method.
  - One cohort received CBT therapy while others received standard treatment and educational contents.

### Results

- The mean age of participants was 29.09.
- Independent samples T test confirmed that patients who underwent psychological counseling had statistically significant higher scores (31.20±2.50) than patients who did not undergo psychological counseling (26.25 ± 5.03), p=0.001.
- Both cohorts on WDTx scored higher than UK general population samples (23.5 ± 3.9)<sup>4</sup>.
- Results of “Pearson Chi-Square” indicated statistically significant association between scores and total number of calls  $\chi^2(1) = 834.57, p = 0.048$ .
- Our analysis showed that the higher the interactions, the better the scores of mental wellbeing. 67.5% of the participants delivered successfully and 32.5% are expected to deliver in future.

### Conclusion

- The results of this study indicate that **psychological counseling delivered via a digital platform, can play a significant role in impacting maternal mental well-being.**
- Improvement in mental well being has been shown to positively influence adherence and practice of recommended maternal health behaviors and contribute to successful delivery outcomes.
- These risk factors should be taken into consideration for Antenatal surveillance and management of pregnancy.
- Digital Therapeutics (DTx) has a potential role in addressing this need by providing 24/7 access to tools and resources at patient’s fingertips to help them better manage their disease in-between medical appointments.
- Keywords:** Short Warwick-Edinburgh Mental Well-being Scale, RPL TM



### SWEMWBS SCORES OF PARTICIPANTS



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