Exploring the early-phase implementation of digital health solutions for rural and regional health services

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SCAN ME

Scan here to read the research protocol in detail

Background

- Eating disorders are complex psychiatric and medical illnesses. **Anorexia Nervosa** (AN) commonly diagnosed during adolescence, holds the **highest mortality** rate of all psychiatric illnesses.
- Family-based treatment (FBT, Lock & Le Grange, 2012) is an **efficacious treatment** for adolescents with AN.
- However, there is **inequity in access and outcomes for rural populations** and implementation is challenged by several factors, such as distance and limited clinical expertise.
- **Telemedicine offers a potential solution to this problem**. COVID-19 has accelerated the need for treatments to be delivered safely and effectively via telehealth services.
- A Chicago pilot study demonstrated **FBT delivered via telehealth saw equivalent outcomes to treatment delivered in traditional face-to-face therapy** (Anderson et al., 2017).
- This research aims to **improve the real-world pathways to accessing evidence-based treatments** for rural young people with AN via **digital health systems**.

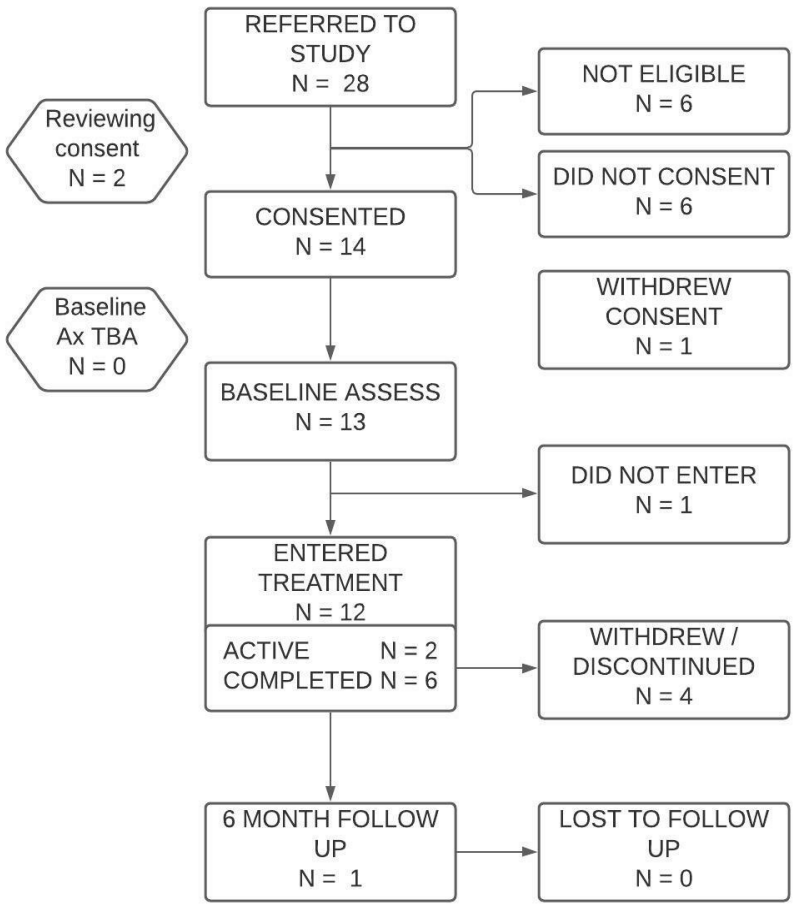
Method

- Four-year pre- and post-implementation study, with 2 years dedicated to treatment delivery
- 40 families living across five rural Local Health Districts within NSW are being recruited.

- 18 sessions of manualised **FBT delivered via telehealth** to adolescents with AN and their families **in their homes** over a six- to nine- month period.
- The analysis will examine treatment effectiveness (change in percent median BMI and global Eating Disorder Examination (EDE) scores. Qualitative and quantitative data captured to assess treatment and telehealth implementation feasibility, acceptability, and cost-effectiveness.

Consort Diagram

(as of December 2021)



Implementation Outcomes

- **Technology**: Variance across the districts in terms of internet access and speeds - impacts on on videoconferencing quality and stability
- **Workforce**: Throughout the study there has been a high turnover of staff in rural towns. Were required to deliver two rounds of advanced FBT training to increase workforce capacity due to staffing changes and a lack of expert eating disorder clinicians in rural hubs.
- **COVID-19 pandemic**: Has accelerated the adoption of telehealth. In some district's telehealth was mandatory, whilst in others face to face therapy continued. However, rapid transitions to telehealth were required in the face of snap lockdowns, service closures and self-isolation.
- **Protocol**: Due to significant variability in treatment pathways, assessment and triage processes across the five districts, the protocol was modified to be a 'best-fit' for each district, whilst also maintaining consistency and quality in research methodology.
- **Outcomes**: Of the 6 whom have completed treatment, all have achieved weight restoration and a significant reduction in psychopathology symptoms.