



**Flinders**  
UNIVERSITY

Archived by Flinders University

This is the peer reviewed version of the following article: Wade, T., Byrne, S., Fursland, A., Steele, A., Wilksch, S., Anderson, J., Zhou, Y., Datta, N., Matheson, B., & Lock, J. (2022). Is guided self-help family-based treatment for parents of adolescents with anorexia nervosa on treatment waitlists feasible? A pilot trial. In *International Journal of Eating Disorders* (Vol. 55, Issue 6, pp. 832–837). Wiley.

which has been published in final form at  
<https://doi.org/10.1002/eat.23720>

This article may be used for non-commercial purposes in accordance with Wiley Terms and Conditions for Use of Self-Archived Versions. This article may not be enhanced, enriched or otherwise transformed into a derivative work, without express permission from Wiley or by statutory rights under applicable legislation. Copyright notices must not be removed, obscured or modified. The article must be linked to Wiley's version of record on Wiley Online Library and any embedding, framing or otherwise making available the article or pages thereof by third parties from platforms, services and websites other than Wiley Online Library must be prohibited.

Copyright © 2022 Wiley Periodicals LLC.  
All rights reserved.

1 N Pages: 17  
2 N words (Abstract): 200  
3 N words (main text, excluding references): 1974  
4 N Tables: 1  
5 N Figures: 1  
6

7 18<sup>th</sup> March 2022

8 **Is guided self-help family-based treatment for parents of adolescents with anorexia**  
9 **nervosa on treatment waitlists feasible? A pilot trial**

10 Tracey Wade, PhD ORCID: 0000-0003-4402-770X <sup>1</sup>

11 Susan Byrne, DPhil ORCID: 0000-0003-1518-6189 <sup>2</sup>

12 Anthea Fursland, PhD ORCID: 0000-0002-5573-0970 <sup>2</sup>

13 Anna Steele, PhD ORCID: 0000-0002-3715-9088 <sup>3</sup>

14 Simon Wilksch, PhD 0000-0002-2041-7503 <sup>1,3</sup>

15 Jemma Anderson MBBS, FRACP, PhD ORCID 0000-0002-5736-0512 <sup>4</sup>

16 Yuan Zhou, PhD ORCID ID: 0000-0002-1123-7973 <sup>1</sup>

17 Nandini Datta, PhD ORCID: 0000-0001-6109-7385<sup>5</sup>

18 Brittany Matheson, PhD ORCID: 0000-0001-8607-5019 <sup>5</sup>

19 James Lock, MD, PhD ORCID: 0000-0002-5169-1484 <sup>5</sup>

20 <sup>1</sup>Blackbird Initiative, Órama Institute, Flinders University, South Australia, Australia

21 <sup>2</sup>Swan Centre, Perth, Australia

22 <sup>3</sup>Advanced Psychology Services, Adelaide, South Australia, Australia

23 <sup>4</sup>Women's and Children's Hospital, North Adelaide, Australia

24 <sup>5</sup>Department of Psychiatry and Behavioral Science, Stanford University School of Medicine, Stanford,  
25 California, 94305

26

27 **Corresponding Author:** Tracey Wade, Flinders University, GPO Box 2100, Adelaide, 5001 SA, Australia.

28 Email: [tracey.wade@flinders.edu.au](mailto:tracey.wade@flinders.edu.au)

29

30 **Acknowledgments:** This study was funded through a co-funded grant from the Breakthrough Mental Health  
31 Research Foundation and Flinders University. We thank the therapists (Madelaine de Valle, Lara King and Yuan  
32 Zhou), therapy supervisor (Dr Sam Boots), and clinical recruitment staff (Elizabeth Challis, Sandy Bridgland,  
33 Mandy Yiu). We acknowledge the seminal contributions by Alison Darcy, PhD and Katherine Kara Fitzpatrick, PhD  
34 in creating the initial platform of materials for the online delivery of family-based treatment.

35 **Disclosure Statement:** None to declare

36 **Data Availability Statement:** The data that support the findings of this study are available from the corresponding  
37 author upon reasonable request.

38 Wade, T., Byrne, S., Fursland, A., Steele, A., Wilksch, S., Anderson, J., Zhou, Y., Datta, N., Matheson, B., & Lock,  
39 J. (2022). Is guided self-help family-based treatment for parents of adolescents with anorexia nervosa on treatment  
40 waitlists feasible? A pilot trial. *International Journal of Eating Disorders*, 55(6), 832–837.  
41 <https://doi.org/10.1002/eat.23720>  
42

43 **Abstract**

44 **Objective:** The aim of the study was to assess the feasibility (recruitment and retention) of an  
45 online 12-session guided self-help Family-Based Treatment (GSH-FBT) for families on the  
46 waitlist for face-to-face FBT utilising trainee psychologists to assist carers of children with  
47 anorexia nervosa (AN) or atypical AN.

48 **Method:** The primary outcomes were feasibility of GSH-FBT for families on the waitlist and  
49 secondary exploratory outcomes examined improvement of child and parental function.

50 **Results:** Of 187 eligible families on the waitlist, 24 (13%) expressed interest in the study; 16  
51 (67%) of these families completed baseline, 13 (54%) completed GSH-FBT over a six-month  
52 recruitment period. Children (mean age=13.92, SD=.86; mean BMI centile=29.47, SD=24.80)  
53 had an average weight gain of 6 kilograms (BMI centile effect size = 2.61, 95% CI: 1.77, 3.44)  
54 and a decrease in eating disorder behaviours (effect size = 1.11, 95% CI: 0.27, 1.95).

55 Improvements also occurred for general mood and behaviours in the child, and the impact of  
56 eating disorder symptoms on their functioning. Parents reported improvements in knowledge,  
57 skills, and confidence in managing AN.

58 **Discussion:** Use of this low-cost intervention while families are on the waitlist for FBT is  
59 engaging and useful but strategies to improve initial recruitment are needed.

60 **Keywords:** Online, Guided, Single Session Intervention, BMI centile, acceptability

61 **Public Significance Statement:** Although most eligible families did not enrol in an online 12-  
62 session guided self-help Family-Based Treatment (GSH-FBT) for families on the waitlist for  
63 face-to-face FBT for anorexia nervosa, families who participated found it engaging. The children  
64 experienced improvements in BMI centile, eating and behaviour. Parents reported increased  
65 confidence, knowledge and skills. We need to examine how families can be encouraged to  
66 participate on online training when on waitlists for treatment.

67           **Is guided self-help family-based treatment for parents of adolescents with anorexia**  
68                           **nervosa on treatment waitlists feasible? A pilot trial**

69           Access to care for young persons with Anorexia Nervosa (AN) has long been challenging  
70 while the COVID-19 pandemic has triggered an increase of 63% in paediatric presentations of  
71 AN (Springall et al., 2021). The Nuffield Trust (2022) reports longer waiting times for children  
72 and young people receive treatment for an eating disorder, with wait times in 2021/22 being  
73 double that in 2020/21 and quadruple that in 2019/20. These delays increase risk of  
74 hospitalisation due to the medical complications of eating disorder behaviours, such as severe  
75 weight loss. Lower body mass index (BMI) at hospital admission is associated with significantly  
76 higher likelihoods of longer hospital stays and hospital re-admission within one year (Sly &  
77 Bamford, 2011). Providing less resource-intensive interventions for families on lengthy waitlists  
78 is an important priority for minimising harm.

79           Internet-based guided self-help interventions have demonstrated efficacy in reducing  
80 eating disorder symptoms (Aardoom et al., 2013) and can provide a cost-effective bridge during  
81 waiting times for treatment (Musiat & Tarrrier, 2014). For adolescent AN, Family-based  
82 Treatment (FBT; Lock & Le Grange, 2005), designed to help parents learn to disrupt behaviours  
83 that maintain the disorder, is considered the first-line treatment (NICE, 2017). A case series  
84 demonstrated initial feasibility of an online clinician guided self-help intervention based on FBT  
85 (GSH-FBT) for parents of adolescents diagnosed with AN (Lock et al., 2017). This was followed  
86 by a small (N=40) randomized clinical trial comparing online GSH-FBT to standard FBT  
87 delivered via videoconferencing. The results of this study found only small effect size (ES)  
88 differences between clinical outcomes suggesting that GSH-FBT might be as effective as FBT,  
89 though adequately powered studies are required (Lock et al., 2021). In the current exploratory

90 study, we evaluated GSH-FBT for carers of young persons with AN who were on a waitlist for  
91 treatment to determine feasibility and preliminary clinical outcomes.

## 92 **Method**

### 93 **Participants**

94 Eligibility criteria included parent(s)/carer(s): (1) whose child had a diagnosis of AN or  
95 atypical AN between the ages of 12 to 18 years, (2) whose child was medically stable for  
96 outpatient treatment, (3) who were willing to participate in weekly medical monitoring to ensure  
97 vital sign stability with a medical practitioner, (4) who were on a waitlist to receive FBT with  
98 one of three services, and (5) who had regular access to the internet to access the online content.  
99 Two of the three participating services were private psychology practices specialising in eating  
100 disorders, the third was a South Australian government service provider, the Child and  
101 Adolescent Mental Health Services (CAMHS). This research was approved by the Southern  
102 Adelaide Clinical Human Research Ethics Committee (286.20); all parents consented prior to  
103 their participation.

### 104 **Intervention**

105 The intervention consisted of twelve online modules accessed weekly (Couturier et al, in  
106 press); each included short videos with a clinician outlining FBT principles, an assigned reading  
107 from the book “Help your Teenager Beat an Eating Disorder” (Lock & Le Grange, 2005), and  
108 homework asking carers to track the use of strategies in their family. Throughout, the carers  
109 received weekly zoom support by therapist guides for up to 30 minutes; guides were  
110 postgraduate clinical psychology trainees holding provisional registration. Initial training of the  
111 therapist guides was provided by ND and BM based on a manual for the therapist guides and

112 their own experience acting as guides. Therapist guides received weekly supervision from a  
113 clinician with expertise in FBT for 21 weeks, and then as needed. Therapist guidance was limited  
114 to helping parents apply the knowledge learned from the videos and readings to their family  
115 without introducing any new material rather than facilitating behavioural change directly, as seen  
116 in standard FBT. Adolescents with AN did not participate directly in any part of the intervention.

## 117 **Outcomes**

118 The protocol accompanying the ethics application (<https://osf.io/rgk7v/>) specified  
119 feasibility as the primary outcome, including recruitment and retention (engagement, adherence,  
120 acceptability, adverse events). Four secondary outcomes related to improvement of the  
121 functioning of the family, and were reported at baseline, 6- and 12-weeks post-baseline. All  
122 outcome measures were completed by carers. The first of these outcomes was carer quality of  
123 life, derived using two items of the EQ-5D (Herdman et al., 2011): Anxiety/depression  
124 (not/moderately/extremely anxious or depressed) and health state (0=worst state you imagine to  
125 100=best state you can imagine).

126 The second was carer confidence in managing the eating disorder with 6 items self-  
127 reporting improvements in self-reported knowledge, skills, confidence, understanding, child's  
128 adherence to meal plans, and improving support (Nicholls & Yi, 2012). Cronbach's alpha in the  
129 current sample was 0.82.

130 The third was Child Mood and Behaviours Related to Eating Disorders: Parent report, a  
131 questionnaire developed by a carer whose child had had anorexia nervosa (see *Supplementary*  
132 *material*). Three subscales make up the questionnaire, Child Mood and Behaviours – General  
133 (Cronbach's alpha = 0.87), Child Eating Behaviours (Cronbach's alpha = 0.91), and Change in

134 Functioning (Cronbach alpha = 0.64). Fourth, the child's BMI centile, was obtained from parents  
135 or the child's physician.

## 136 **Results**

### 137 **Participants**

138 The outcomes of the 13 families who completed GSH-FBT whilst on the waitlist are  
139 examined in the current report. The children's ages ranged from 13 to 15 years (mean=13.92,  
140 SD=.86), with BMI centiles ranging from 3.63 to 91.52 (mean=29.47, SD=24.80). All families  
141 were White and at least one biological parent participated. Apart from medical monitoring, some  
142 families accessed other treatments during the waiting period: non-specialist psychologist with  
143 their child (n=2), a dietitian (n=1), a motivational interviewing skills training group (n=1).

### 144 **Feasibility**

#### 145 ***Recruitment***

146 Over a six-month recruitment period, of 187 eligible families on the waitlist, 24 (13%)  
147 expressed interest in the study; 16 (67%) of these families completed baseline, and 13 (54%)  
148 completed the GSH-FBT protocol. Each of the three sites used different intake and recruitment  
149 procedures with potential differences in recruitment rates; 56% (9/16) came from one site, a  
150 private practice where 8 families participated in GSH-FBT. One family had 6 sessions but failed  
151 to engage and were discharged. Of the eligible families offered GSH-FBT, the participation rate  
152 was 19.5% (8/41). This practice offered a single session intervention (SSI) – a face-to-face  
153 assessment as soon as possible after the initial referral with psychoeducation and tips on what to  
154 do over the waitlist period. Families were given information about the study at that meeting. The



155 use of the SSI has previously been shown to be helpful for retention for people with eating  
156 disorders on a waitlist for treatment (Fursland et al., 2018).

157 The other private practice recruited 4 families (2 withdrew after 3 sessions when offered  
158 FBT) with a 5.3% (2/38) participation rate. No assessment was offered by this private practice.  
159 Families were informed about the study over the telephone and barriers to participation  
160 mentioned by parents included concerns that engagement in GSH-FBT would slow  
161 commencement of face-to-face treatment; feeling overwhelmed and distressed with their child's  
162 illness and not having energy for a research trial; and concern about the trainee status of the  
163 therapist guides.

164 Three families were recruited from CAMHS (23%) with a 5.2% (3/58) participation rate.  
165 CAMHS offered a multidisciplinary diagnostic assessment within 6 weeks of referral with  
166 psychoeducation, during which families were given information about the study. A separate  
167 single session of psychoeducation for parents was offered within 4 weeks of assessment.

## 168 ***Retention***

169 **Engagement.** Shown in *Figure 1*, eight of the 24 families enquired about the study but  
170 did not complete a baseline assessment. Two of these families had started FBT so in total, 73%  
171 of initial enquires converted to baseline assessments (n=16), of which 13 families completed  
172 GSH-FBT and at least 2 of the three assessment points. Given two of the families did not  
173 complete GSH-FBT because they started FBT, this gives a completion rate of 93%.

174 **Adherence.** Each week, guides asked families the percentage of videos watched/book  
175 chapters read. Most families reported completing 100% of the homework assignments, but three

176 families completed less than 50% of homework assignments over the course of the program or  
177 did not complete course material in a timely fashion.

178         **Acceptability.** When asked “my experience would have been better if...” and “what  
179 were the best things about this service were...”, the most warmly endorsed aspect of the program  
180 was the support of the facilitator (e.g., “Our facilitator has been amazing in supporting us. She is  
181 friendly, supportive and extremely positive. She seemed to have an extensive knowledge of the  
182 material and has helped us immensely.”). Almost all families also warmly endorsed the benefits  
183 of talking to a facilitator who reinforced the ideas shown on videos (e.g., “[The facilitator]  
184 provided lots of practical knowledge with support to implement”). Many families commented on  
185 how practical and informative the videos were (“Videos and book have provided valuable  
186 information during a critical time”). Five families suggested that the videos were not as helpful  
187 as they expected for reasons ranging from content being “too generic” or “obvious”, not relatable  
188 enough, or not providing enough strategies early on. At 6- and 12-weeks post-baseline, families  
189 were asked three questions about acceptability, reported in *Table 1*.

190         **Adverse events.** Four families reported deliberate non-life-threatening self-harm  
191 behaviours engaged by the young person. One family reported hospitalization due to weight loss  
192 during the program. One family reported a young person filed a child abuse report against the  
193 mother, but the report was recanted.

#### 194 **Secondary outcomes**

195         Reported in *Table 1*, the parents’ knowledge, skills and confidence improved over time,  
196 as did parent reported Child Mood and Behaviours – General, Child Eating Behaviours and

197 Change in Functioning, and the child's BMI centile, associated with a mean gain of around 6  
198 kilograms.

## 199 **Discussion**

200 This examination of the feasibility of GSH-FBT indicated a low recruitment rate, with  
201 13% of eligible families expressing interest and 7% of the total eligible pool of families on the  
202 waitlist having completed the protocol. However, those families who participated found the  
203 intervention to be engaging – providing uniformly positive feedback and high ratings of  
204 satisfaction. The vast majority (93%) who started GSH-FBT completed it, and 77% completed  
205 all homework and course materials in a timely manner. Adverse events were reported while  
206 receiving GSH-FBT, underlining the need for provision of face-to-face medical support over this  
207 period and over any waitlist period. Families who participated appeared to have received  
208 considerable benefit, commensurate with the previous pilot trial (Lock et al., 2017). There was  
209 an average weight gain of 6 kilograms in the child and a decrease in eating disorder behaviours,  
210 with changes associated with large ESs. Self-reports indicated general improvement in eating,  
211 mood and behaviours in the child and in parental knowledge, skills, confidence.

212 The limitations of the current study include a small sample size, lack of a randomized  
213 comparison, use of self-report measures, a narrow age range of participants, and the use of an  
214 unvalidated questionnaire. The study sample is self-selected, such that the most motivated  
215 families are included, which has two implications: (1) increasing participation by bringing in less  
216 motivated families might not yield the same impressive outcomes, and (2) control for  
217 spontaneous improvement with time could be more of a confounding issue with a highly  
218 motivated subgroup.

219            However, results of this exploratory study suggest that use of this low-cost intervention  
220 while families are on the waitlist for FBT is likely safe and helpful. Recruitment was challenging  
221 due to the hesitancy of parents to participate and may speak to the level of confusion and  
222 disempowerment they feel (Zabala et al., 2009) and their sense that professional intervention  
223 might be delayed if they participated. Given the life-threatening nature of AN, it is important to  
224 consider these barriers and helpful means of addressing them to help increase access to care for  
225 the increasing number of families on the waitlist. Use of early face to face engagement with  
226 parents, such as used in the SSI, was associated with the highest level of recruitment while on a  
227 waitlist, so it may be fruitful to explore this type of engagement in future studies. It will also be  
228 important to develop the means to identify families likely to benefit from GSH-FBT.

229

230  
231  
232  
233  
234  
235  
236  
237  
238  
239  
240  
241  
242  
243  
244  
245  
246  
247  
248  
249  
250  
251  
252  
253

## References

Aardoom, J. J., Dingemans, A. E., Spinhoven, P., & Van Furth E. F. (2013). Treating eating disorders over the internet: a systematic review and future research directions. *International Journal of Eating Disorders*, *46*, 539-52. doi: 10.1002/eat.22135

Couturier, J., Webb, C., Carson, N., Doxtdator, K., Matheson, B., Datta, N., Sami S., Citron, K., & Lock, J. (in press). Applying online parental guided self-help family-based treatment for adolescent anorexia nervosa. *Clinical Child Psychology and Psychiatry*.

Fursland, A., Erceg-Hurn, D. M., Byrne, S. M., & McEvoy, P. M. (2018). A single session assessment and psychoeducational intervention for eating disorders: Impact on treatment waitlists and eating disorder symptoms. *International Journal of Eating Disorders*, *51*, 1373–1377. doi:10.1002/eat.22983

Herdman, M., Gudex, C., Lloyd, A., Janssen, M., Kind, P., Parkin, D., et al. (2011). *Quality of Life Research*, *20*, 1727-36.

Lenhard, W., & Lenhard, A. (2016). Computation of effect sizes. Retrieved from [https://www.psychometrica.de/effect\\_size.html](https://www.psychometrica.de/effect_size.html). Psychometrica. doi: 10.13140/RG.2.2.17823.92329

Lock, J. & Le Grange, D. (2005). *Help your teenager beat an eating disorder*. New York: Guilford Press.

Lock, J., Darcy, A., Fitzpatrick, K. K., Vierhile, M., & Sadeh-Sharvit, S. (2017). Parental guided self-help family- based treatment for adolescents with anorexia nervosa: A feasibility study. *International Journal of Eating Disorders*, *50*, 1104-8. doi: 10.1002/eat.22733

Lock, J., Couturier, J., Matheson, B. E., Datta, N., Citron, K., Sami, S., Welch, H., Webb, C., Doxtdator, K., & John-Carson, N. (2021). Feasibility of conducting a randomized controlled trial comparing family-based treatment via videoconferencing and online guided self-help

- 254 family-based treatment for adolescent anorexia nervosa. *International Journal of Eating*  
255 *Disorders*, 54(11), 1998–2008. doi: 10.1002/eat.23611
- 256 Musiat, P., & Tarrrier, N. (2014). Collateral outcomes in e-mental health: a systematic review of  
257 the evidence for added benefits of computerized cognitive behavior therapy interventions for  
258 mental health. *Psychological Medicine*, 44, 3137-50. doi: 10.1017/S0033291714000245
- 259 National Institute for Health and Care Excellence. Eating disorders: recognition and treatment  
260 NICE guideline [NG69]. NICE; 2017.
- 261 Nicholls, D. E., & Yi, I. (2012). Early intervention in eating disorders: A parent group approach.  
262 *Early Intervention in Psychiatry*, 6(4), 357-67. doi: 10.1111/j.1751-7893.2012.00373.x
- 263 Nuffield Trust. (2022). Children and young people with an eating disorder waiting  
264 times. [https://www.nuffieldtrust.org.uk/public/resource/children-and-young-people-with-an-](https://www.nuffieldtrust.org.uk/public/resource/children-and-young-people-with-an-eating-disorder-waiting-times)  
265 [eating-disorder-waiting-times](https://www.nuffieldtrust.org.uk/public/resource/children-and-young-people-with-an-eating-disorder-waiting-times)
- 266 Sly, R., & Bamford, B. (2011). Why are we waiting? The relationship between low admission  
267 weight and end of treatment weight outcomes. *European Eating Disorders Review*, 19, 407-  
268 10. doi: 10.1002/erv.1061
- 269 Springall, G., Cheung, M., Sawyer, S. M., & Yeo, M. (2021). Impact of the coronavirus  
270 pandemic on anorexia nervosa and atypical anorexia nervosa presentations to an Australian  
271 tertiary paediatric hospital. *Journal of Paediatrics and Child Health*. Advance online  
272 publication. doi: 10.1111/jpc.15755
- 273 Zabala, M. J., Macdonald, P., & Treasure, J. (2009). ppraisal of caregiving burden, expressed  
274 emotion and psychological distress in families of people with eating disorders: a systematic  
275 review. *European Eating Disorders Review*, 17, 338-49. doi: 10.1002/erv.925
- 276

**Table 1:** *Estimated means and standard errors (SE) of secondary outcomes.*

Variable	Baseline n=13	6 weeks n=12	12 weeks n=12	Main effect of time F (p)	Within group ES 95% CI
	Estimated Mean (SE)			Between baseline and 12 weeks, n=13	
<b><i>Carer quality of life (EQ-5D)</i></b>					
Parental anxiety/depression (1-3)	1.62 (0.15)	1.47 (0.16)	1.38 (0.16)	1.03 (.39)	0.34 (-0.44, 1.12)
Parental health state (1-100)	65.85 (10.48)	76.19 (9.23)	77.35 (9.25)	2.86 (.10)	0.28 (-0.49, 1.06)
<b><i>Carer confidence in managing the eating disorder (1-7)</i></b>					
Knowledge	4.54 (0.37)	5.84 (0.16)	5.85 (0.20)	<b>10.56 (&lt;.01)</b>	<b>1.16 (0.35, 1.96)</b>
Skills	4.08 (1.01)	5.77 (0.93)	5.69 (0.94)	<b>14.37 (&lt;.001)</b>	<b>0.85 (0.06, 1.63)</b>
Confidence	3.54 (0.74)	4.94 (0.72)	5.39 (0.67)	<b>10.94 (&lt;.01)</b>	0.71 (-0.08, 1.50)
Child's adherence to meal plans	5.00 (0.45)	5.52 (0.45)	5.31 (0.42)	1.50 (.26)	0.23 (-0.55, 0.96)
Improving support	3.62 (0.46)	4.67 (0.47)	4.51 (0.53)	3.00 (.10)	0.67 (-0.11, 1.45)
<b><i>Child Mood and Behaviours Related to Eating Disorders (1-5)</i></b>					
Child mood and behaviours – general <sup>1</sup>	3.02 (0.61)	2.36 (0.62)	2.41 (0.62)	<b>19.72 (&lt;.001)</b>	0.65 (-0.15, 1.44)
ED behaviours	3.10 (0.21)	2.00 (0.21)	2.05 (0.22)	<b>18.39 (&lt;.001)</b>	<b>1.11 (0.27, 1.95)</b>
Change in functioning <sup>2</sup>	2.46 (0.27)	3.39 (0.26)	3.41 (0.26)	<b>12.79 (.001)</b>	0.55 (-0.25, 1.34)
Body mass index centile	29.47 (6.88)	46.88 (9.65)	61.68 (8.01)	<b>10.35 (&lt;.01)</b>	<b>1.45 (0.59, 2.31)</b>
Weight (kg)	46.55 (2.84)	50.42 (3.07)	52.44 (2.86)	<b>25.65 (&lt;.001)</b>	<b>2.61 (1.77, 3.44)</b>
<b><i>Acceptability (1-7)</i></b>					
Hopefulness for the future <sup>3</sup>	-	6 (0.82)	6 (0.85)		
Wellbeing <sup>3</sup>		5.75 (0.87)	5.75 (0.87)		
Experience with GSH-FBT <sup>4</sup>		6.46 (0.66)	6.42 (SD=0.67)		

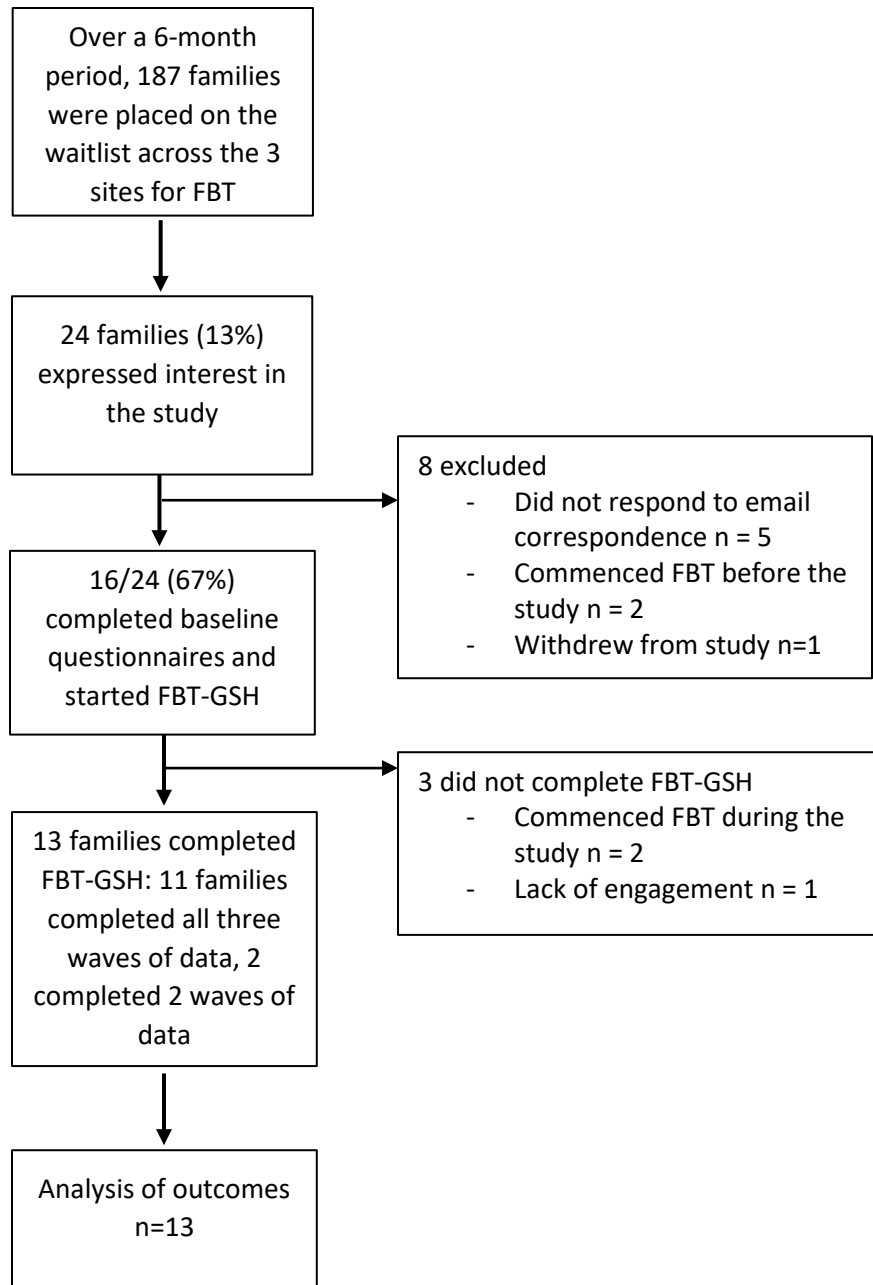
**Notes.** <sup>1</sup> Lower scores indicated better mood and less ED behaviours; <sup>2</sup> Higher scores are associated with more positive changes in ED functioning (e.g., increased flexibility with food, decreased dependence on parents); <sup>3</sup> 1 = deterioration, mid-point = no change, 7 = improvement; <sup>4</sup> 1 = extremely bad, 7 = extremely good. Data analysed with linear mixed models where Maximum Likelihood estimation was used for missing values and effect sizes (ES) were calculated from the differences between the means and standard deviations at each time point adjusting for correlated observations (Lenhard & Lenhard, 2016).

## Figure Legends

### **Figure 1.** *Flow Diagram*

*Note.* GSH-FBT = Family Based Therapy Guided Self-Help.





**Supplementary Material: Child Mood and Behaviours Related to Eating Disorders: Parent report**

© Fiona Ryan (2019). *The Child Mood and Behaviours Related to Eating Disorders: Parent Report* is freely available for non-commercial clinical or research use and no permission need be sought. It should not be modified, commercially exploited or translated without permission from the author.

Item		1 Never	2 Rarely	3 Some	4 Regularly	5 Often
<b>Over the last 6 weeks has your child been ...</b>						
1	Happy					
2	Moody					
3	Hopeful					
4	Withdrawn					
5	Sad/depressed					
6	Controlling/manipulative					
7	Lying					
8	Stealing					
9	Physically/verbally aggressive					
<b>Over the last 6 weeks have you noticed ...</b>						
10	Arguing about food					
11	Blocked Pipes in your house					
12	Tension at mealtimes					
13	Food going missing					
<b>Over the last 6 weeks how often have you noticed your child ...</b>						
14	Deliberately trying to limit their intake					
15	Going for long periods of time (8+ waking hours) without eating					
16	Excluding foods that they like from their diet					
17	Trying to follow definite rules about eating					
18	Using laxatives					
19	Vomiting or trying to vomit					
20	Avoiding or withdrawing from social contacts					
21	Exercising obsessively					
22	Comparing their body to others					
<b>Over the last 6 weeks do you believe the following have changed for your child ...</b>						
		1 Increased a lot	2 Increased some	3 Stayed the same	4 Decreased some	5 Decreased a lot
23	Their flexibility with foods					
24	Their ability to study/work					
25	Their dependence on you					
26	Their anxiety levels					
27	Their stress levels					
28	Their negative attitude to their body					

**Note:** Items 1 to 9 form the “Child Mood and Behaviours – General” subscale, reverse score items 1 and 3; Items 10 to 22 form the Child Eating Behaviours” subscale; Items 23 to 28 form the “Change in Functioning” subscale, reverse score items 23 and 24 so a higher score indicates better function.