



**Karolinska  
Institutet**

Karolinska Institutet

<http://openarchive.ki.se>

---

This is a Peer Reviewed Accepted version of the following article, accepted for publication in The Lancet Child & Adolescent Health.

2019-03-27

# Efficacy and cost-effectiveness of therapist-guided internet cognitive behavioural therapy for paediatric anxiety disorders : a single-centre, single-blind, randomised controlled trial

Jolstedt, Maral; Wahlund, Tove; Lenhard, Fabian; Ljótsson, Brjánn; Mataix-Cols, David; Nord, Martina; Öst, Lars-Göran; Högström, Jens; Serlachius, Eva; Vigerland, Sarah

---

Lancet Child Adolesc Health. 2018 Nov;2(11):792-801.

[http://doi.org/10.1016/S2352-4642\(18\)30275-X](http://doi.org/10.1016/S2352-4642(18)30275-X)

<http://hdl.handle.net/10616/46701>

*If not otherwise stated by the Publisher's Terms and conditions, the manuscript is deposited under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.*

## **Supplementary materials**

### **Supplement to: Efficacy and cost-effectiveness of therapist-guided internet cognitive behaviour therapy for paediatric anxiety disorders: a single-blind randomised controlled trial**

Maral Jolstedt, Tove Wahlund, Fabian Lenhard, Brjánn Ljótsson, David Mataix-Cols, Martina Nord, Lars-Göran Öst, Jens Högström, Eva Serlachius, Sarah Vigerland

Centre for Psychiatry Research, Department of Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden (M Jolstedt MSc, T Wahlund MSc, F Lenhard PhD, B Ljótsson PhD, Prof D Mataix-Cols, M Nord MSc, J Högström PhD, E Serlachius PhD, S Vigerland PhD); Stockholm Health Care Services; Stockholm County Council, Stockholm, Sweden (M Jolstedt MSc, T Wahlund MSc, F Lenhard PhD, Prof D Mataix-Cols, M Nord MSc, J Högström PhD, E Serlachius PhD, S Vigerland PhD); Department of Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden (B Ljótsson PhD); Department of Psychology, Stockholm University, Stockholm, Sweden (Prof L G Öst).

Correspondence to: Maral Jolstedt MSc, Centre for Psychiatry Research, Department of Clinical Neuroscience, Karolinska Institutet, & Stockholm Health Care Services, Stockholm County Council, CAP Research Centre, Gävlegatan 22, SE-113 30 Stockholm, Sweden , [maral.jolstedt@ki.se](mailto:maral.jolstedt@ki.se).

## Index

<b>Supplemental Table/Figure</b>	<b>Page</b>	<b>Content</b>
Table 1	3	Treatment content of BiP Anxiety and Internet-delivered Child-directed Play
Table 2	4	Timing of measures by blind rater, unblinded rater, child and parent through the trial
Table 3	5	Random effects and covariance structures included in the final linear mixed model analyses for each outcome measure
Table 4	6	Resource unit costs
Table 5	7	Within-group effects of ICBT
Table 6	8	Per protocol analysis of between- and within-group effects at primary endpoint
Table 7	9	Response and remission rates at post-treatment and 3-months follow-up
Table 8	10	Primary- and secondary outcome measures for patients who crossed over to ICBT after ICDP
Table 9	11	Post-hoc analyses of the primary outcome measure, excluding $n=14$ participants who inadvertently revealed their treatment condition to blind assessors
Table 10	12	Post-hoc analyses of response and remission rates at post-treatment, excluding $n=14$ participants who inadvertently revealed their treatment condition to blind assessors
Table 11	13	Association between treatment credibility at week 3 and treatment response, remission, adherence and clinician-rated engagement
Table 12	14	The effect of ICBT, compared to ICDP, based on whether patients rated the treatments as credible or not credible (see also Supplemental Figure 3)
Table 13	15	Average resource use frequencies at pre- and post-treatment and mean costs accumulated over a 12 week time period
Figure 1	16	Screenshots from the ICBT treatment (BiP Anxiety)
Figure 2	17	The effect of ICBT, compared to ICDP, based on whether patients rated the treatments as credible or as not credible
Figure 3	18	Total cost differences between ICBT and ICDP

**Supplemental Table 1: Treatment content of BiP Anxiety and Internet-delivered Child-directed Play**

Module/ session	BiP Anxiety, Parent	BiP Anxiety, Child	Internet-delivered Child-Directed Play
1.	Psychoeducation and rationale for exposure, functional analysis, identify own negative beliefs	Psychoeducation and rationale for exposure, functional analysis	Introducing ICDP
2.	Goals and hierarchies	Coping strategies (“worry versus problems” for GAD)	What to do when engaging in ICDP
3.	Reward systems, managing obstacles, decreasing demands	Goals and hierarchies	What not to do when engaging in ICDP, start practicing
4.	Start exposure practice and plan exposure tasks	Start exposure practice (social awareness training for SAD, interoceptive exposure for PD)	Follow up, praise and communication
5.	Follow up, parental behaviours	Follow up, repetition of rationale for gradual exposure	Follow up, handling obstacles
6.	Follow up, handling obstacles, problem solving	Follow up, repetition of coping strategies to use during exposure	Follow up, handling unwanted behaviours/mischief
7.	Follow up, communication skills	Follow up, cognitive techniques (imaginal exposure for GAD)	Follow up, repetition of how to handle obstacles
8.	Follow up, keeping motivation	Follow up, problem solving	Follow up, repetition of what to do and not to do in ICDP
9.	Follow up, engaging others (e.g., school)	Follow up, repetition of coping strategies	Follow up, repetition of communication skills
10.	Follow up, increase exposure practice	Follow up, repetition of cognitive techniques	Follow up, repetition of how to handle obstacles
11.	Follow up	Follow up, increase exposure practice	Follow up, repetition of how to praise during ICDP
12.	Follow-up, maintenance and relapse prevention	Follow-up, maintenance and relapse prevention	Summary, reflection and maintenance

*Abbreviations.* ICDP=Internet-delivered Child-directed Play; GAD=Generalized Anxiety Disorder; SAD=Social Anxiety Disorder; PD=Panic Disorder. *Note.* ICDP directed to the parent only; Follow-up involves following up on homework assignments and symptom monitoring; Week 5 - 11 in both ICBT and ICDP focus mainly on repetition of the main therapeutic component, i.e., gradual exposure for ICBT and parental behaviours during child-directed play in ICDP.

**Supplemental Table 2: Timing of measures by blind rater (B), unblinded rater (U), child (C) and parent (P) through the trial**

Measure	Pre	Week 3	Week 6	Week 9	Post	Follow-up
CSR	B				B	U
CGAS	B				B	U
CGI-I					B	U
RCADS-C/P	C, P	C, P	C, P	C, P	C, P	C, P
EWSAS-C/P	C, P		C, P		C, P	C, P
KIDSCREEN-10 – C/P	C, P				C, P	C, P
TiC-P	P				P	

*Abbreviation.* B=blinded rater; U=unblinded rater; C=child rated; P=parent rated; CSR=Clinician Severity Rating; CGAS=Children's Global Assessment Scale; CGI-I=Clinical Global Impression Scale – improvement; RCADS-C/P=The Revised Children's Anxiety and Depression Scale – child and parent versions; EWSAS-C/P=Education, Work and Social Adjustment Scale – child and parent versions; KIDSCREEN C/P=KIDSCREEN-10 – child and parent versions; TiC-P=Trimbos/iMTA questionnaire for Costs associated with Psychiatric Illness. *Note.* Follow-up data only available for ICBT; The parent reports costs for both parent and child in TiC-P.

**Supplemental Table 3: Random effects and covariance structures included in the final linear mixed model analyses for each outcome measure**

	Between group	Within group ICBT	Within group cross-over ICBT
<b>CSR</b>	Random intercept Random slope Variance components	Random intercept Random slope Variance components	Random intercept Random slope Diagonal covariance
<b>CGAS</b>	Random intercept Random slope Variance components	Random intercept Random slope Diagonal covariance	Random intercept Random slope Diagonal covariance
<b>RCADS-C</b>	Random intercept Random slope Diagonal covariance	Random intercept Random slope Diagonal covariance Unstructured covariance	Random intercept Random slope Diagonal covariance Unstructured covariance
<b>RCADS-P</b>	Random intercept Random slope Diagonal covariance	Random intercept Random slope Diagonal covariance	Random intercept Random slope Diagonal covariance type
<b>EWSAS-C</b>	Random intercept Random slope Variance components	Random intercept Random slope Diagonal covariance	Random intercept Random slope Diagonal covariance Unstructured covariance
<b>EWSAS-P</b>	Random intercept Random slope Variance components	Random intercept Random slope Variance components	Random intercept Random slope Diagonal covariance
<b>KIDSCREEN-C</b>	Random intercept Random slope Variance components	Random intercept Random slope Variance components	Random intercept Random slope Diagonal covariance
<b>KIDSCREEN-P</b>	Random intercept Random slope Variance components	Random intercept Random slope Diagonal covariance	Random intercept Random slope Variance components

*Abbreviations.* ICBT=Internet-delivered Cognitive Behaviour Therapy; CSR=Clinician Severity Rating; CGAS= Children's Global Assessment Scale; CGI-I=Clinical Global Impression Scale – improvement; RCADS-C/P=The Revised Children's Anxiety and Depression Scale – child and parent versions; EWSAS-C/P=Education, Work and Social Adjustment Scale – child and parent versions; KIDSCREEN C/P=KIDSCREEN-10 – child and parent versions. *Note.* Between group models based on change from pre- to post treatment; Within group models includes follow-up data.

**Supplemental Table 4: Resource unit costs**

Type of cost	Resource	Cost, €	Source of cost
<b>Healthcare visits</b>	General practitioner	356.7	2016 price list for healthcare within Stockholm county council ( <a href="http://www.sthlm-gotland.se/2016-2/">http://www.sthlm-gotland.se/2016-2/</a> )
	Nurse	192.6	
	Social worker	203.9	
	Physiotherapist	152.9	
	Specialized physician	356.7	
	Chiropractor / osteopath	152.9	
	Psychologist / psychotherapist	322.8	
<b>Support</b>	Study / homework help (hours)	47.5	Market price (average price of five Swedish tutoring services)
	Support of friends & family (hours)	15.5	Average hourly salary minus 30% tax ( <a href="http://www.scb.se/en/">http://www.scb.se/en/</a> )
<b>Medicines</b>	Medicines (per pill / dosage)	Individual prices	Swedish Dental and Pharmaceutical Benefits Agency, TLV ( <a href="https://www.tlv.se/in-english.html">https://www.tlv.se/in-english.html</a> )
<b>Supplements</b>	Dietary supplements (per pill / dosage)	Individual prices	According to Swedish online pharmacy price lists
<b>Absenteeism</b>	Absence from work (parents, days)	177.1	Average daily salary in Sweden, Statistics Sweden ( <a href="http://www.scb.se/en/">http://www.scb.se/en/</a> )
	Absence from school (child, days)	61.2	Cost per school day, National Agency for Education ( <a href="https://www.skolverket.se/">https://www.skolverket.se/</a> )
<b>Presenteeism</b>	Working when feeling ill (% of days)	177.1	Average daily salary in Sweden, Statistics Sweden ( <a href="http://www.scb.se/en/">http://www.scb.se/en/</a> )
	In school when feeling ill (% of days)	61.2	Cost per school day, National Agency for Education ( <a href="https://www.skolverket.se/">https://www.skolverket.se/</a> )

**Supplemental Table 5: Within-group effects of ICBT**

	Observed data		Linear mixed model		Within-group effect size Cohen's <i>d</i> (95% CI)	
	n	<i>M</i> ( <i>SD</i> )	Estimated mean	<i>p</i> -value	Per protocol	Intent-to-treat
<b>CSR</b>						
Pre	66	4.73 (0.73)	4.73			
Post	60	3.55 (1.14)	3.54	<0.001	1.21 (0.78 to 1.65)	1.23 (0.79 to 1.66)
FU	57	2.86 (1.19)	2.98	<0.001	0.59 (0.38 to 0.81)	0.48 (0.27 to 0.69)
<b>CGAS</b>						
Pre	66	57.18 (5.98)	58.18			
Post	59	63.14 (7.97)	62.96	<0.001	0.83 (0.50 to 1.17)	0.81 (0.48 to 1.14)
FU	56	65.62 (9.97)	65.32	0.027	0.27 (0.04 to 0.50)	0.26 (0.02 to 0.49)
<b>RCADS-C</b>						
Pre	66	34.67 (15.38)	34.61			
Post	54	26.41 (14.42)	25.73	<0.001	0.55 (0.31 to 0.79)	0.59 (0.35 to 0.84)
FU	50	20.50 (11.63)	21.89	0.015	0.44 (0.19 to 0.69)	0.29 (0.04 to 0.53)
<b>RCADS-P</b>						
Pre	66	39.46 (12.53)	39.55			
Post	56	26.25 (10.75)	27.19	<0.001	1.12 (0.80 to 1.45)	1.05 (0.73 to 1.37)
FU	51	23.75 (12.21)	26.11	0.467	0.22 (-0.05 to 0.48)	0.09 (-0.17 to 0.36)
<b>EWSAS-C</b>						
Pre	66	12.70 (7.86)	12.73			
Post	54	8.30 (6.08)	8.17	<0.001	0.62 (0.30 to 0.93)	0.64 (0.32 to 0.96)
FU	50	6.28 (5.91)	6.73	0.036	0.34 (0.09 to 0.61)	0.24 (-0.01 to 0.49)
<b>EWSAS-P</b>						
Pre	66	17.00 (7.37)	16.72			
Post	56	11.41 (7.27)	11.08	<0.001	0.76 (0.44 to 1.08)	0.77 (0.45 to 1.09)
FU	51	9.00 (6.79)	9.16	0.022	0.34 (0.11 to 0.57)	0.27 (0.05 to 0.50)
<b>KIDSCREEN-C</b>						
Pre	66	39.47 (4.87)	39.47			
Post	54	39.98 (5.13)	39.52	0.939	0.10 (-0.17 to 0.37)	0.01 (-0.26 to 0.28)
FU	50	40.62 (5.32)	39.91	0.468	0.12 (-0.09 to 0.33)	0.07 (-0.13 to 0.28)
<b>KIDSCREEN-P</b>						
Pre	66	36.45 (4.10)	36.45			
Post	56	37.68 (3.89)	37.41	0.050	0.31 (0.06 to 0.55)	0.24 (0.00 to 0.48)
FU	51	38.31 (4.56)	37.95	0.836	0.15 (-0.16 to 0.46)	0.13 (-0.18 to 0.44)

*Abbreviations.* ICBT=Internet-delivered Cognitive Behaviour Therapy; CSR=Clinician Severity Rating; CGAS= Children's Global Assessment Scale; CGI-I=Clinical Global Impression Scale – improvement; RCADS-C/P=The Revised Children's Anxiety and Depression Scale – child and parent versions; EWSAS-C/P=Education, Work and Social Adjustment Scale – child and parent versions; KIDSCREEN C/P=KIDSCREEN-10 – child and parent versions. *Note.* The within-group effect size is based on changes from pre to post, and from post to follow-up; Only the Total Anxiety Scale from RCADS-C/P is presented; The intent-to-treat within-group effect size is based on estimated means derived from the linear mixed models and the observed pooled standard deviation.



**Supplemental Table 6: Per protocol analysis of between- and within-group effects at primary endpoint**

	Between-group effect size		Within-group effect size			
	<i>n</i>	Cohen's <i>d</i> (95% CI)	<i>n</i>	ICBT Cohen's <i>d</i> (95% CI)	<i>n</i>	ICDP Cohen's <i>d</i> (95% CI)
<b>CSR</b>	121	0.75 (0.37 to 1.12)	60	1.21 (0.78 to 1.65)	61	0.74 (0.46 to 1.02)
<b>CGAS</b>	120	0.54 (0.17 to 0.90)	59	0.83 (0.50 to 1.17)	61	0.43 (0.22 to 0.63)
<b>RCADS-C</b>	110	0.07 (-0.30 to 0.45)	54	0.55 (0.31 to 0.79)	56	0.50 (0.28 to 0.72)
<b>RCADS-P</b>	116	0.38 (0.00 to 0.75)	56	1.12 (0.80 to 1.45)	60	0.49 (0.24 to 0.49)
<b>EWSAS-C</b>	110	0.29 (-0.09 to 0.67)	54	0.62 (0.30 to 0.93)	56	0.35 (0.09 to 0.61)
<b>EWSAS-P</b>	115	0.37 (-0.01 to 0.74)	56	0.76 (0.44 to 1.08)	59	0.42 (0.14 to 0.70)
<b>KIDSCREEN-C</b>	109	0.37 (0.02 to 0.72)	54	0.10 (-0.17 to 0.37)	55	0.42 (0.13 to 0.72)
<b>KIDSCREEN-P</b>	115	0.31 (-0.06 to 0.69)	56	0.31 (0.06 to 0.55)	59	0.29 (0.07 to 0.51)

*Abbreviations.* ICBT=Internet-delivered Cognitive Behaviour Therapy; ICDP=Internet-delivered Child-directed Play; CSR=Clinician Severity Rating; CGAS= Children's Global Assessment Scale; CGI-I=Clinical Global Impression Scale – improvement; RCADS-C/P=The Revised Children's Anxiety and Depression Scale – child and parent versions; EWSAS-C/P=Education, Work and Social Adjustment Scale – child and parent versions; KIDSCREEN C/P=KIDSCREEN-10 – child and parent versions. *Note.* The within-group effect size is based on changes from pre to post; Only the Total Anxiety Scale from RCADS-C/P is presented; primary endpoint is at post treatment.

**Supplemental Table 7: Response and remission rates at post-treatment and 3-months follow-up**

	<i>n</i>	ICBT, <i>n</i> (%)	<i>n</i>	ICDP, <i>n</i> (%)	Odds ratio (95% CI)	$\chi^2$	<i>p</i> -value
<b>Responder</b>							
Post	59	30 (50.80)	61	10 (16.40)	5.28 (2.26 to 13.33)	16.02	<0.001
FU	54	38 (70.40)					
<b>Remission</b>							
Post	60	29 (48.30)	61	9 (14.80)	5.41 (2.26 to 12.90)	15.83	<0.001
FU	57	40 (70.20)					

*Abbreviations.* ICBT=Internet-delivered Cognitive Behaviour Therapy; ICDP=Internet-delivered Child-directed Play. *Note.* Remission=not fulfilling criteria for principal diagnosis; responder=<3 on Clinical Global Impression Scale – improvement.

**Supplemental Table 8: Primary- and secondary outcome measures for patients who crossed over to ICBT after ICDP**

	Observed data		Linear mixed model		Within-group effect size Cohen's <i>d</i> (95% CI)	
	<i>n</i>	<i>M</i> ( <i>SD</i> )	Estimated mean	<i>p</i> -value	Per protocol	Intent-to-treat
<b>CSR</b>						
Pre	61	4.31 (0.87)	4.31			
Post	52	3.27 (1.01)	3.25	<0.001	0.77 (0.50 to 1.04)	1.11 (0.81 to 1.42)
FU	53	2.91 (1.40)	2.85	0.001	0.56 (0.36 to 0.75)	0.31 (0.12 to 0.49)
<b>CGAS</b>						
Pre	61	58.97 (7.61)	58.97			
Post	52	64.16 (10.15)	64.19	<0.001	0.51 (0.30 to 0.71)	0.55 (0.34 to 0.75)
FU	53	64.96 (10.76)	65.69	0.041	0.46 (0.32 to 0.60)	0.14 (0.01 to 0.28)
<b>RCADS-C</b>						
Pre	56	27.50 (15.37)	27.77			
Post	46	23.33 (14.26)	22.73	0.001	0.24 (0.06 to 0.41)	0.33 (0.15 to 0.51)
FU	41	21.61 (14.10)	20.81	0.062	0.24 (0.10 to 0.39)	0.13 (-0.01 to 0.27)
<b>RCADS-P</b>						
Pre	60	30.98 (14.13)	31.39			
Post	53	24.57 (13.97)	24.55	<0.001	0.36 (0.19 to 0.53)	0.47 (0.30 to 0.65)
FU	48	22.73 (12.69)	22.03	0.064	0.37 (0.16 to 0.57)	0.18 (-0.02 to 0.37)
<b>EWSAS-C</b>						
Pre	56	10.25 (7.32)	10.59			
Post	46	8.72 (6.68)	8.55	0.011	0.29 (0.07 to 0.52)	0.29 (0.07 to 0.51)
FU	41	7.07 (5.78)	6.27	0.004	0.32 (0.06 to 0.58)	0.35 (0.09 to 0.61)
<b>EWSAS-P</b>						
Pre	60	14.32 (8.56)	14.72			
Post	53	10.42 (8.00)	10.16	<0.001	0.29 (0.04 to 0.53)	0.55 (0.29 to 0.80)
FU	48	9.81 (6.93)	9.20	0.270	0.31 (0.09 to 0.54)	0.12 (-0.09 to 0.34)
<b>KIDSCREEN-C</b>						
Pre	56	39.67 (4.60)	39.60			
Post	46	39.74 (4.62)	39.59	0.983	-0.04 (-0.27 to 0.19)	0.00 (-0.23 to 0.24)
FU	41	39.17 (5.91)	39.17	0.503	-0.03 (-0.25 to 0.19)	-0.07 (-0.29 to 0.15)
<b>KIDSCREEN-P</b>						
Pre	60	36.41 (4.18)	36.34			
Post	53	37.91 (4.87)	37.88	0.014	0.12 (-0.11 to 0.35)	0.24 (0.10 to 0.58)
FU	48	37.17 (5.83)	37.27	0.253	0.10 (-0.11 to 0.31)	-0.11 (-0.32 to 0.09)

*Abbreviations.* ICBT=Internet-delivered Cognitive Behaviour Therapy; ICDP=Internet-delivered Child-directed Play; CSR=Clinician Severity Rating; CGAS=Children's Global Assessment Scale; CGI-I=Clinical Global Impression Scale – improvement; RCADS-C/P=The Revised Children's Anxiety and Depression Scale – child and parent versions; EWSAS-C/P=Education, Work and Social Adjustment Scale – child and parent versions; KIDSCREEN C/P=KIDSCREEN-10 – child and parent versions. *Note.* The within-group effect size is based on changes from pre to post, and from post to follow-up; Only the Total Anxiety Scale from RCADS-C/P is presented; Within-group effect sizes are based on estimated means derived from the linear mixed models combined with the observed pooled standard deviation.

**Supplemental Table 9: Post-hoc analyses of the primary outcome measure, excluding  $n=14$  participants who inadvertently revealed their treatment condition to blind assessors**

		<i>M</i> ( <i>SD</i> )		Within group effect size (95% CI)		Between group		Linear mixed model		
	<i>n</i>	ICBT	<i>n</i>	ICDP	ICBT	ICDP	Mean difference (95% CI)	Effect size (95% CI)	Effect	<i>p</i> -value
CSR										
Pre	54	4.74 (0.76)	63	4.94 (0.76)					Group	0.163
									Time	< 0.001
Post	48	3.60 (1.16)	59	4.31 (0.90)	1.16 (0.66 to 1.66)	0.75 (0.47 to 1.04)	0.53 (0.13 to 0.94)	0.49 (0.12 to 0.87)	Group x Time	0.010

*Abbreviations.* ICBT=Internet-delivered Cognitive Behaviour Therapy; ICDP=Internet-delivered Child-directed Play; CSR=Clinician Severity Rating. *Note.* Mean and standard deviation are based on observed data; Within- and between group effects (effect sizes and mean differences) are based on estimates derived from the linear mixed model.

**Supplemental Table 10: Post-hoc analyses of response- and remission rates at post-treatment, excluding  $n=14$  participants who inadvertently revealed their treatment condition to blind assessors**

	<i>n</i>	ICBT, <i>n</i> (%)	<i>n</i>	ICDP, <i>n</i> (%)	Odds ratio (95% CI)	$\chi^2$	<i>p</i> -value
<b>Responder</b>	47	24 (51.10)	59	10 (16.90)	5.11 (2.10 to 12.43)	13.97	<0.001
<b>Remission</b>	48	24 (50.00)	59	9 (15.30)	5.57 (2.24 to 13.77)	14.98	<0.001

*Abbreviations.* ICBT=Internet-delivered Cognitive Behaviour Therapy; ICDP=Internet-delivered Child-directed Play.

*Note.* Remission=not fulfilling principal diagnosis post treatment; responder= $\leq 3$  on Clinical Global Impression Scale – improvement.

**Supplemental Table 11: Association between treatment credibility at week 3 and treatment response, remission, adherence and clinician-rated engagement**

	<i>n</i>	Credible	Not credible	$\chi^2$	<i>p</i> -value
<b>Responder</b>	115			0.34	0.563
<b>Yes, n (%)</b>		30 (26.1)	8 (7.0)		
<b>No, n (%)</b>		57 (49.6)	20 (17.4)		
<b>Remission</b>	116			0.11	0.746
<b>Yes, n (%)</b>		28 (24.1)	8 (6.9)		
<b>No, n (%)</b>		60 (51.7)	20 (17.2)		
<b>Adherence</b>	114			1.10	0.297
<b>Yes, n (%)</b>		78 (68.4)	21 (18.4)		
<b>No, n (%)</b>		10 (8.8)	5 (4.4)		
<b>Engagement</b>	116			0.42	0.516
<b>Yes, n (%)</b>		51 (44.0)	15 (12.9)		
<b>No, n (%)</b>		35 (31.0)	14 (12.1)		

*Abbreviations.* CSR=Clinician Severity Rating. *Note.* Post-hoc analysis; Adherence=completed at least four modules in the treatment.

**Supplemental Table 12: The effect of ICBT, compared to ICDP, based on whether patients rated the treatments as credible or not credible (see also Supplemental Figure 3)**

	<i>n</i>	Mixed effect	<i>t</i> -value	<i>p</i> -value
<b>Total sample</b>	131	Credibility*Time	0.79	0.431
<b>Treatment reported as credible</b>	99	Condition*Time	2.62	0.010
<b>Treatment reported as not credible</b>	41	Condition*Time	2.66	0.012

*Abbreviations.* ICBT=Internet-delivered Cognitive Behaviour Therapy; ICDP=Internet-delivered Child-directed Play.

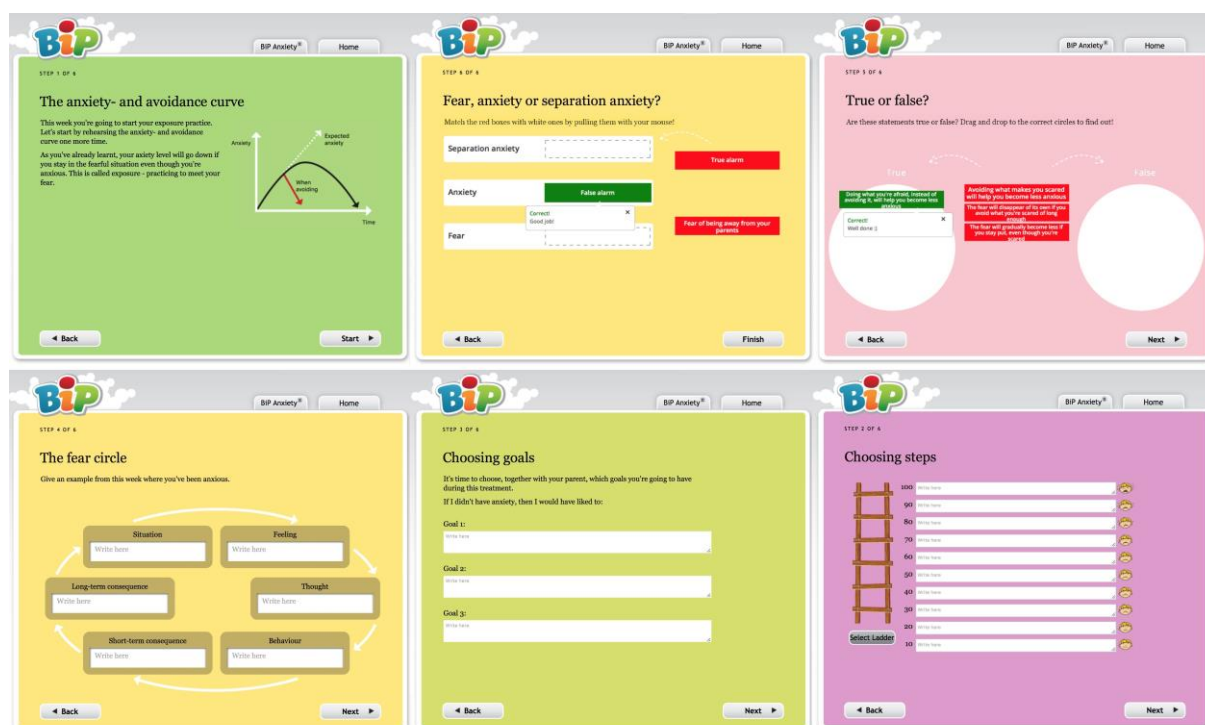
*Note.* Post-hoc analysis; Intent-to-treat analysis including all participants.

**Supplemental Table 13: Average resource use frequencies at pre- and post-treatment and mean costs accumulated over a 12 week time period**

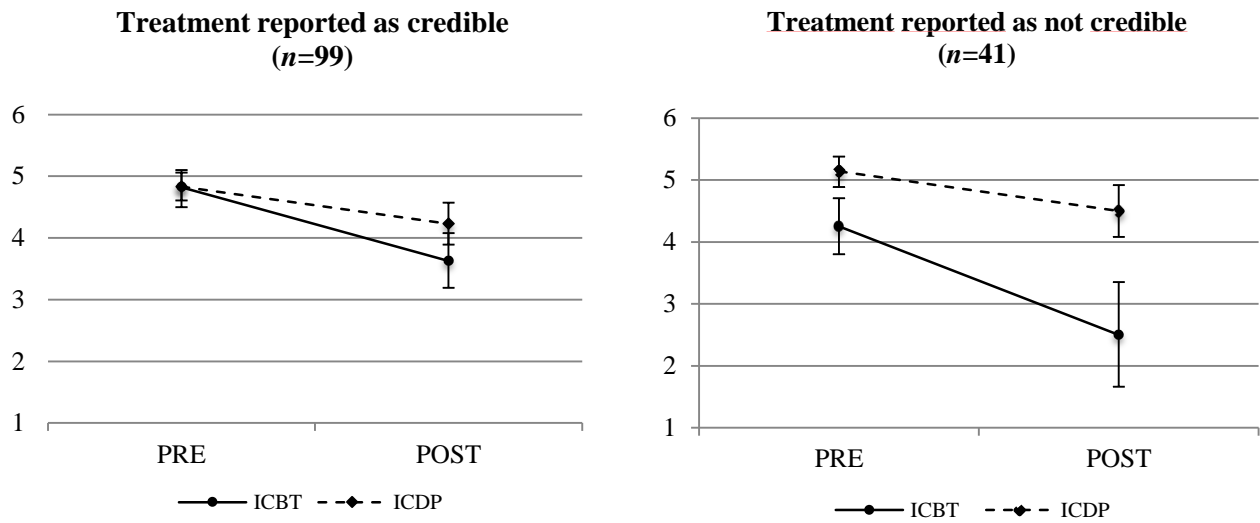
	Pre-treatment resource use		Post-treatment resource use		Costs (EURO)	
	ICBT, <i>M</i> (SD)	ICDP, <i>M</i> (SD)	ICBT, <i>M</i> (SD)	ICDP, <i>M</i> (SD)	ICBT, <i>M</i> (95% CI)	ICDP, <i>M</i> (95% CI)
<b>Healthcare (visits)</b>					1994.41 (1986.55; 2002.27)	2342.86 (2334.57; 2351.16)
General practitioner	0.74 (1.15)	0.88 (1.07)	0.63 (1.15)	0.68 (1.01)		
Nurse	0.33 (0.69)	0.29 (0.65)	0.36 (0.75)	0.34 (0.80)		
Social worker	0.20 (0.66)	0.54 (1.69)	0.13 (0.51)	0.34 (1.67)		
Physiotherapist	0.15 (0.50)	0.18 (0.50)	0.29 (0.80)	0.10 (0.40)		
Specialized medical doctor (hospital)	0.29 (0.82)	0.28 (0.77)	0.29 (0.62)	0.44 (1.04)		
Chiropractor / osteopath	0.27 (0.80)	0.12 (0.33)	0.14 (0.44)	0.25 (0.76)		
Psychologist / psychotherapist	0.65 (1.20)	0.78 (1.30)	0.23 (1.04)	0.34 (0.88)		
<b>Support (hours)</b>					251.39 (250.17; 252.62)	338.42 (336.11; 340.72)
Study / homework help	0.02 (0.12)	0.11 (0.62)	0.11 (0.56)	0.24 (1.29)		
Support of friends & family	4.90 (9.81)	3.74 (9.40)	4.98 (10.74)	7.66 (20.46)		
<b>Medicines (pills/dosages)</b>					13.27 (13.20; 13.35)	14.57 (14.48; 14.65)
Medicines	15.41 (20.59)	16.09 (18.51)	11.82 (13.94)	11.29 (12.66)		
<b>Supplements (pills/dosages)</b>					5.65 (5.62; 5.68)	12.41 (12.33; 12.49)
Dietary supplements	14.44 (32.96)	20.49 (38.53)	8.93 (20.47)	10.542 (19.21)		
<b>Absenteeism (days)</b>					1212.79 (1207.06; 1218.52)	1350.76 (1344.60; 1356.92)
Absence from work (parents)	2.30 (4.33)	2.78 (5.31)	1.71 (4.30)	2.01 (4.07)		
Absence from school (child)	1.23 (1.89)	1.85 (2.65)	0.93 (1.45)	1.31 (2.10)		
<b>Presenteeism (days)</b>					337.47 (335.85; 339.10)	411.24 (408.98; 413.49)
Productivity loss at work due to illness	2.85 (4.34)	3.33 (4.63)	2.27 (6.97)	2.07 (3.93)		
Productivity loss at school due to illness	1.08 (2.65)	1.76 (3.68)	1.23 (3.48)	1.35 (3.12)		
<b>Internet treatment (min)</b>					158.89 (140.50; 177.28)	75.69 (68.58; 82.79)
Therapist time	-	-	321.22 (170.03)	108.95 (67.86)		
<b>Total costs</b>					4192.72 (4179.56; 4205.88)	4684.25 (4671.02; 4697.47)

*Abbreviations:* ICBT=Internet-delivered Cognitive Behaviour Therapy; ICDP=Internet-delivered Child-directed Play. *Note:* Subtotal cost values do not add up to total costs due to individually estimated means; Treatment time for ICBT includes therapist time spent on both child and parent whereas treatment time for ICDP includes time spent on parent only; Therapist time includes time spent online and via telephone.



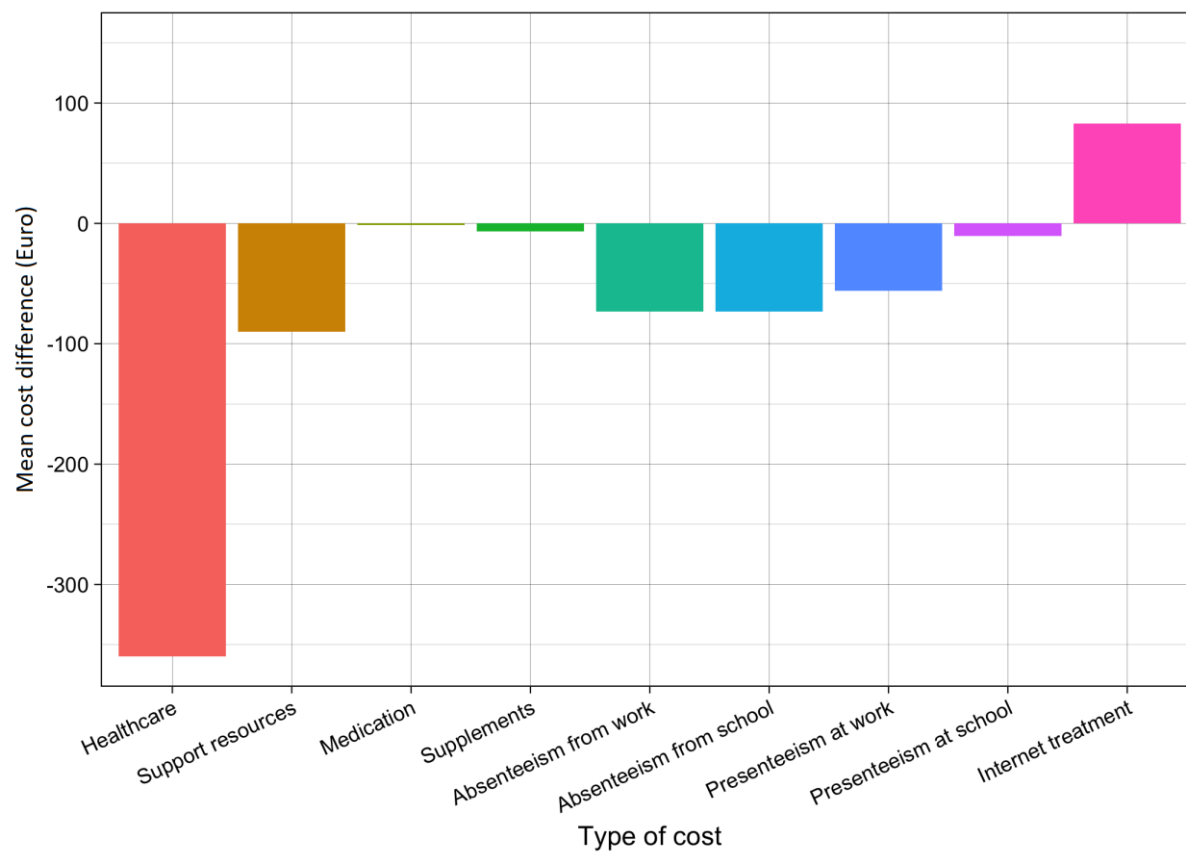


**Supplemental Figure 1: Screenshots from the ICBT treatment BiP Anxiety**  
*Note.* Translated from Swedish.



**Supplemental Figure 2: The effect of ICBT, compared to ICDP, based on whether patients rated the treatments as credible or as not credible**

*Abbreviations.* ICBT=Internet-delivered Cognitive Behavior Therapy; ICDP=Internet-delivered Child-directed Play. *Note.* Post-hoc analysis on primary outcome measure Clinician Severity Rating (CSR); based on estimated means derived from the linear mixed model (i.e., no cases excluded).



**Supplemental Figure 3: Total cost differences between ICBT and ICDP**

*Abbreviations.* ICBT=Internet-delivered Cognitive Behaviour Therapy; ICDP=Internet-delivered Child-directed Play. *Note.* Negative values indicate savings in favour of ICBT, positive values indicate savings in favour of ICDP.