



Does diagnostic profile predict outcome for online CBT for youth anxiety?

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Background to the research

- We know online CBT works for child and adolescent anxiety
 - Spence et al. 2006; March et al. 2009; Spence et al. 2011; Donovan & March (in prep)
 - Khanna & Kendall (2010)
 - Wuthwrich et al (2012)
- Similar improvements to face-to-face therapy



Between 20 and 50% do not demonstrate response

Who fails to respond to online therapy?









Online therapy = Low intensity



- Assumed most useful for mild to moderate problems
- Reluctance of clinicians to utilise computer-based psychological services (Stallard et al. 2010)
 - Clinicians felt cCBT less effective for more severe or more complex diagnostic profiles
- No evidence to support this claim











Aims

- Examine potential predictors of response to online CBT for youth anxiety
- Focus on diagnostic profile
- Examine whether youth with more complex diagnostic profile are more likely to show poorer outcomes at 12-month follow-up

Is online therapy suitable for everyone?









Predictors of outcome

- No research in online therapy
- Variables of interest that might be particularly important in online therapy
 - Type of anxiety disorder (Social Phobia)
 - Severity of anxiety (severe problems)
 - Comorbid anxiety and non-anxiety disorders (historically null effect)











The present study

- Data collected across two studies
 - Children and adolescents with anxiety disorders
- All participants received BRAVE-ONLINE
- Completed diagnostic assessments at baseline and 12-months post intervention
- Did baseline data predict who responded?













Measures



Baseline

- Demographic (age, gender, income)
- Child clinical variables
 - Problem severity (primary anxiety disorder severity, severity of overall impairment)
 - Type of primary disorder
 - Comorbidity (number of comorbid anxiety disorders, presence of a comorbid non-anxiety disorder, selfreported depression symptoms)









Outcome measures



- 12 months post-intervention
- Diagnostic status based on diagnostic interview (ADIS), combined child/parent report
 - Failure to Remit
 - Failure to Respond









Response & Remission Rates

	N	%
Response		
Retained their primary disorder	32/154	20.8
Became free of their primary disorder	122/154	79.2
Remission		
Retained any anxiety disorder	44/154	28.6
Became free of all anxiety disorders	110/154	71.4

No sig difference in rates of remission and response









Prediction of RESPONSE (retained primary dx)

Independent Variables	В	SE	Wald χ ²	df	p value	OR	95% CI
Step 1							
CGAS	-0.05	0.04	2.24	1	0.13	0.95	0.88 – 1.02
Step 2 (for each model)							
Model 4: CBCL-Internalizing T-Score							
CGAS	-0.04	0.04	1.08	1	0.30	0.96	0.89 – 1.04
CBCL-Internalizing T-Score (50-86) ^	0.83	0.03	6.77	1	0.01	1.09	1.02 – 1.16
Model 6: Presence of comorbid non-ar	Model 6: Presence of comorbid non-anxiety disorder						
CGAS	-0.05	0.04	1.55	1	0.21	0.96	0.89 – 1.03
Presence of comorbid non-anxiety disorder	0.85	0.51	2.80	1	0.09	2.33	0.87 – 6.26
Model 6: Self-reported depression (CES-D)							
CGAS	-0.04	0.04	1.26	1	0.26	0.96	0.89 – 1.03
Self-reported depression (CES-D) (3-57) ^	0.04	0.02	4.22	1	0.04	1.04	1.00 – 1.07









Prediction of REMISSION (retained any dx)

Independent Variables	В	SE	Wald χ²	df	p value	OR	95% CI
Step 1							
CGAS	-0.11	0.04	9.48	1	0.02	0.90	0.84 - 0.96
Step 2 (for each model)							
Model 3: SCAS-Parent							
CGAS	-0.09	0.04	5.48	1	0.02	0.92	0.85 - 0.99
SCAS-Parent (7-83) ^	0.03	0.02	4.07	1	0.04	1.03	1.00 - 1.06
Model 4: CBCL-Internalizing T-Score							
CGAS	-0.10	0.04	7.52	1	0.01	0.91	0.85 - 0.97
CBCL-Internalizing T-Score (50-86) ^	0.06	0.03	4.94	1	0.03	1.07	1.01 - 1.13
Model 7: Number of comorbid anxiety	Model 7: Number of comorbid anxiety disorders ^c						
CGAS	-0.07	0.04	3.00	1	0.08	0.93	0.86 - 1.01
1 comorbid disorder	0.78	0.84	0.86	1	0.35	2.18	0.42 – 11.22
2 comorbid disorders	0.48	0.86	0.32	1	0.57	1.62	0.30 - 8.66
3 comorbid disorders	1.63	0.89	3.34	1	0.07	5.12	0.89 – 29.51
4+ comorbid disorders	2.12	0.98	4.71	1	0.03	8.29	1.23 – 56.02









Diagnostic status according to number of comorbid disorders

	Failure to respond (% retaining primary diagnosis)	Failure to Remit (% retaining at least 1 anxiety diagnosis)
Number of comorbid anxiety		
disorders		
No comorbid anxiety disorders	10	10
1 comorbid anxiety disorder	18.4	24.5
2 comorbid anxiety disorders	16.7	20.1
3 comorbid anxiety disorders	30	45
4+ comorbid anxiety disorders	41.2	64.7
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Who was less likely to respond to BRAVE-ONLINE?

- Youth with higher self-reported depressive and internalising symptoms were less likely to RESPOND
- Youth with lower overall functioning, higher internalising, higher total anxiety symptoms and four or more comorbid diagnoses were less likely to REMIT
- Recovery rates equal across:
 - Males and females
 - Younger and older youth
 - All SES groups
 - Mild to severe problems
 - All types of anxiety disorders











Should we persist with online therapy?

- YES!
- Many respond
- Complex presentations may require additional assistance (e.g. stepped care) or alternative assistance (e.g. face-to-face)
- <u>Some</u> comorbidity ok, <u>multiple</u> comorbid disorders worsens outcome
- Online therapy NOT limited to mild severity or single disorder cases









