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Online Treatments for Depression: A Randomised Controlled Trail on an Adult Student Population – Preliminary findings

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Introduction

- Depression is a growing problem with associated costs
- Treatment exists but so do barriers
- Internet & ICT's may address barriers to accessing treatment
- Particularly for young adults – online help seeking
- Alongside efficacy research required to determine:
  - Frequency, type and duration of human support required for success

Research Questions

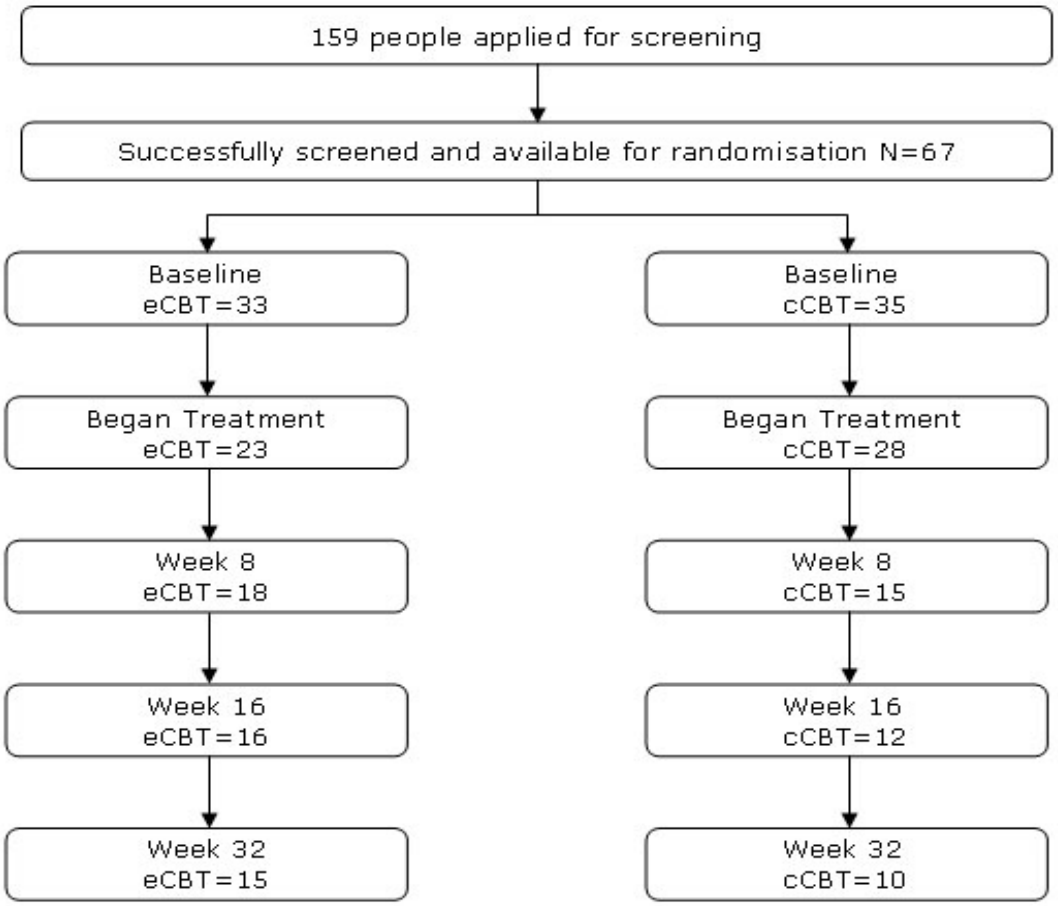
- 1. To investigate the effectiveness of the online interventions, hypothesising that participants treated online would achieve reductions in depression symptoms and improvements in general mental health functioning

- 2. To investigate the value of therapist-led versus self-administered interventions hypothesising that given the primacy of a responsive therapeutic relationship to success across different treatments the therapist-led condition may demonstrate greater improvements.

Design & Methods

- RCT design
  - Recruitment and screening, eligibility criteria
- Outcome measures
  - BDI-II & CORE-OM
  - Satisfaction
- Process Measures
  - WAI-SR
- Treatments
  - Asynchronous therapist-led online CBT counselling treatment (eCBT)
  - Computerised self-administered CBT treatment (cCBT)
- Statistical analysis

Flow of participants



Results

The following will be considered in presenting results from the study:

- Demographic details and baseline characteristics
- Compliance & adherence to treatment
- Effects of the Interventions
- Clinically significant change
- Therapeutic Alliance correlations
- Satisfaction with treatment

Results - Baseline

Table: Demographic details, and previous and present treatments

	ALL (n=51)	OCT (n=23)	SAT (N=28)
Age (M,SD)	25.59 (6.518)	25.26 (8.22)	25.86 (4.85)
Male	18	6	12
Female	33	17	16
Previous counselling	Y=27; N=24	Y=14, N=9	Y=13, N=15
Previous medication	Y=14; N=37	Y=8, N=15	Y=6, N=22
Present medication >6 months	Y=9; N=42	Y=4, N=19	Y=5, N=23

No significant differences found between the groups at baseline on the BDI-II $F(14)=1.521$, $p=.153$ or CORE-OM $F(16)=1.063$

BDI-II mean score: eCBT 23.39 (4.40); cCBT 21.11 (5.55); CORE-OM mean score: eCBT 17.96 (3.60); cCBT 16.93 (4.84)

No significant differences in age $t(-.729)=.698$, $p=.469$

Significant difference with gender $t(49)=5.816$, $p=.020$, more females than males.

Mean score on CORE-OM was higher for females in eCBT (18.06), cCBT (16.25).

Results - Compliance to treatment

Table: Compliance and attrition rates in the study

	Both [n=51]		OC [n=23]		BTB [n=28]	
	N	%	N	%	N	%
Session 1	51	100	23	100	28	100
Session 2	42	82	23	100	19	68
Session 3	32	63	17	74	15	54
Session 4	27	53	15	65	12	43
Session 5	21	41	9	39	12	43
Session 6	15	29	8	35	7	25
Session 7	11	22	6	26	5	18
Session 8	9	18	5	22	4	14

Mean sessions for both group was 4.08 and for each condition was eCBT: 4.61 and cCBT: 3.64. No significant difference between the number of session completed for both conditions $t(49)=1.23$, $p>.05$

Results – Effects of the Interventions

Outcome measure	Pre-treatment Score: mean (s.d.) n	Post-treatment Score: mean (s.d.) n	Effect Size (*d*)	Follow-up assessments: Week 16 Score: mean (s.d.) n	Effect Size (*d*)	Week 32 Score: mean (s.d.) n	Effect Size (*d*)
BDI-II							
eCBT	23.39 (4.3) n=23	11.72 (5.3) n=18	2.71	10.88 (5.7) n=16	2.90	11.00 (5.3) n=15	2.88
cCBT	21.11 (5.5) n=28	11.60 (6.3) n=15	1.72	9.75 (5.4) n=12	2.06	12.00 (8.3) n=10	1.66
CORE-OM							
eCBT	17.96 (3.6) n=23	11.61 (5.3) n=18	1.76	11.88(4.3) n=16	1.69	12.27 (2.5) n=15	1.58
cCBT	16.93 (4.8) n=28	13.20 (5.7) n=15	.78	11.83 (4.7) n=12	1.06	13.80 (4.3) n=10	.65

Results – Clinically Significant Change

Table: Clinically significant change

	Week 8 N=33				Week 16 N=28				Week 32 N=25			
	OCT n=18		SAT n=15		OCT n=16		SAT n=12		OCT n=15		SAT n=10	
	N	%	N	%	N	%	N	%	N	%	N	%
Recovered	7	39	5	33	5	31	5	42	3	20	4	40
Improvement	3	17	5	33	6	38	4	33	8	53	1	10
No Change	8	44	5	33	5	31	3	25	4	27	5	50
Deterioration												

At end of treatment 36% were recovered, 36% at week 16, at week 32, 28%. At end of treatment 21% improved, 36% at follow-up. Therefore, 61% recovered or improved by week 8, 71% at week 16, and 64% at week 32. At end of treatment 39% had no change, 29% at week 16 and 36% at week 32

Results – WAI-SR x BDI-II

eCBT		BDI_Week8	BDI_Week16	BDI_Week32
WAI_2_Result	Pearson Correlation	-.150	.145	-.371
	N	16	15	14
WAI_4_Result	Pearson Correlation	-.195	.098	.120
	N	13	12	11
WAI_6_Result	Pearson Correlation	-.133	-.393	-.535
	N	9	8	8
cCBT				
WAI_2_Result	Pearson Correlation	-.449	-.327	-.377
	N	11	10	9
WAI_4_Result	Pearson Correlation	-.047	.029	-.104
	N	9	9	9
WAI_6_Result	Pearson Correlation	-.591	-.133	-.419
	N	5	5	5

No significant within-subjects $F(2,24)=.553$, $p=.582$ or between-subjects $F(2,24)=2.661$, $p=.090$ differences for the groups on the WAI-SR over time

Results – Satisfaction

- Happy to use the computer to access treatment
  - The majority agreed (67%), with 33% neither agreed nor disagreed
- Found the online treatment easy to use
  - 67% agreed, 22%neither agreed nor disagreed and 11% disagreed strongly
- Consider the treatment to have a lasting effect
  - 50% responded positively, 39% neither agreed nor disagreed and 11% disagreed
- Would recommend the online treatment to other users
  - 50% said they would, 45% neither agreed nor disagreed and 5% disagreed
- Helpfulness of the online treatment program
  - 83% very or quite helpful and 17% not helpful

Principal Findings

- Online treatments for depression may have significant impact in reducing depressive symptoms and also in the maintenance of gains
- Significant clinical change took place for 61% of the participants
- Potential significant correlation with WAI and BDI outcome, highlighting the predictive value of a positive perception of working alliance
- Young adults are for the most part satisfied in online treatment delivery

Limitations

- Sample size, high attrition rate, missing data
- Recruitment of participants online, selection bias
- Self-report versus diagnosis for BDI and CORE
- Eligibility criteria limitation in generisability
- Population in higher education therefore results may not generalise to lower education groups
- Recent study reports that those who self-refer are more likely to benefit from cCBT, therefore the results may not have a bearing on populations with other sources of referral
- Online data collection raise concerns.

Conclusion and Future Research

- Positive direction of findings that builds on prior work in the field regarding efficacy of online treatments for depression
- Potentially interesting regarding the frequency, type and duration of human support required for success
- Increase the sample size to demonstrate greater significance