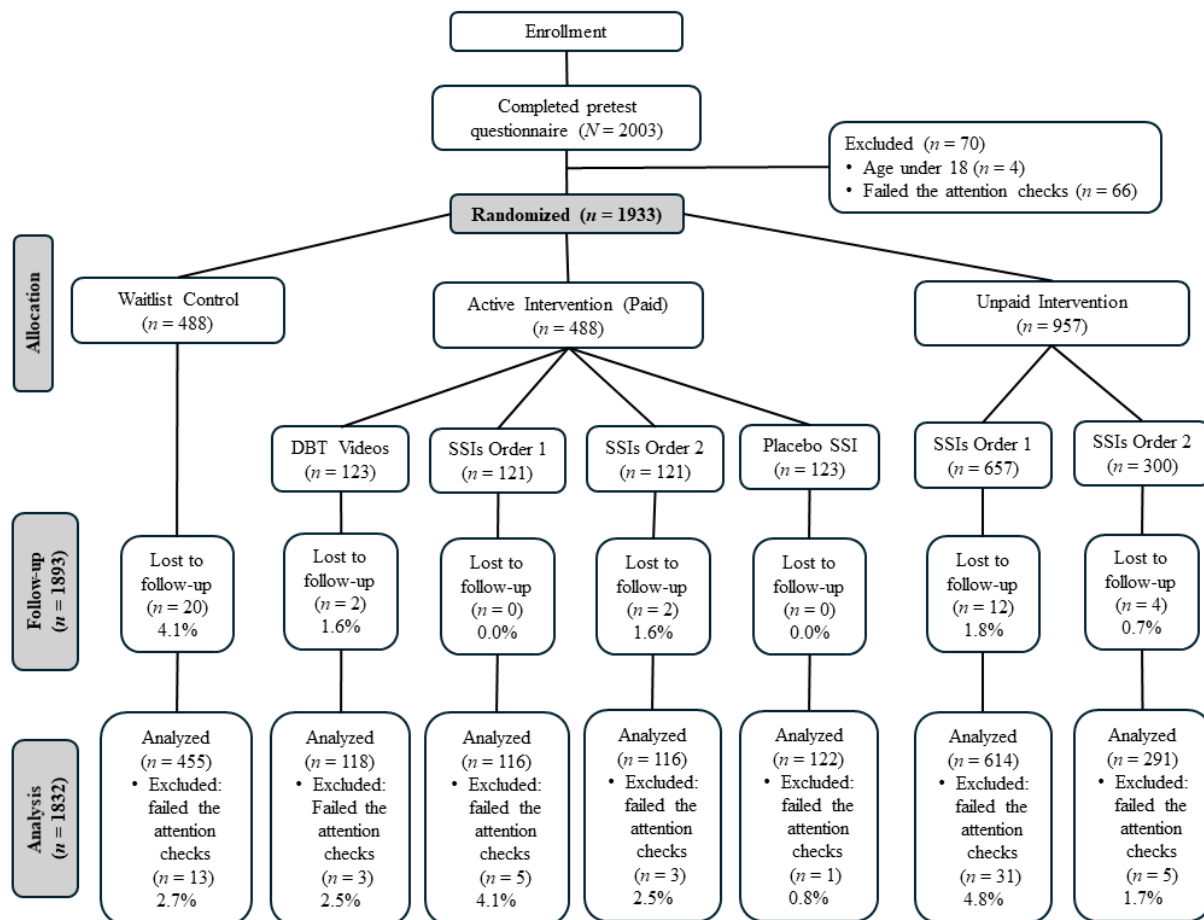


Supplemental File

Our pre-registration specified conducting a completers analysis, including only participants who completed both our baseline and endpoint assessments (<https://osf.io/qybtv/>). Our pre-registration was completed after data was collected, but before data was analyzed, such that we knew the lost to follow-up rate and that it was small (0-4% among the conditions). Given the large sample size and small lost to follow-up rate, we knew differences between a completers and modified intent-to-treat analysis would be small. Upon further discussion after initial data analysis, we decided that a modified intent-to-treat analysis would be more consistent with study reporting for clinical trials and opted to report that analysis as our primary analysis in the manuscript. We describe it as a modified intent-to-treat analysis as we did exclude participants who failed attention checks as described in the main manuscript.

Figure S1. CONSORT diagram



DBT = Dialectical behavior therapy, SSI = Single session intervention. SSI Order 1 was the ABC Project followed by Project CARE, SSI Order 2 was Project CARE followed by the ABC Project.

Participants. Out of the 2,003 individuals who completed our baseline questionnaire, 1,933 met our inclusion criteria. Our final analysis sample was 1,832 as 40 were lost to follow-up (2%) and 61 failed our attention checks in the endpoint survey (3%). The CONSORT Diagram for this analysis is displayed in Figure S1.

Participants had a mean age of 20.48 years ($SD = 1.86$). The sample was predominantly female (63.4%), and most identified as Han Chinese (93.4%), the dominant ethnic group in China. All participants were enrolled in undergraduate studies, with the largest proportions in

their second (30.1%) and third (25.2%) years. Most reported that their biological parents were married (88.1%), and the majority lived in urban areas (61.6%). Regarding parental education, 60.8% of mothers and 58.6% of fathers had completed high school or less. In terms of mental health history, 27.7% of participants reported previously seeking help for psychological concerns, 3.5% were currently receiving help, and 6.6% had taken psychiatric medication.

Table S1 provides baseline values for the DSM-5 Cross-Cutting Symptom measure at the domain-level for the overall analysis sample and each condition. Several of these values are above means found in a community sample collected from the United States (i.e., depression, mania, anxiety, repetitive thoughts and behaviors, and personality functioning) and a few are lower (i.e., suicidal ideation, dissociation, and substance use) [76]. It is difficult to determine if these differences reflect differences in severity of these symptoms or cross-cultural differences in their expression.

Table S1. Baseline Scores on the DSM-5 Cross Cutting Symptom Measure

Baseline Characteristics <i>Mean (SD)</i>	Overall (<i>n</i> = 1872)	Waitlist Control (<i>n</i> = 475)	Active Intervention (Paid) (<i>n</i> = 476)				Unpaid Intervention (<i>n</i> = 921)	
			DBT Videos (<i>n</i> = 120)	SSIs Order 1 (<i>n</i> = 116)	SSIs Order 2 (<i>n</i> = 118)	Placebo SSI (<i>n</i> = 122)	SSIs Order 1 (<i>n</i> = 626)	SSIs Order 2 (<i>n</i> = 295)
DSM-5 Cross Cutting Symptom Measure								
Depression	2.41 (1.69)	2.34 (1.68)	2.21 (1.41)	2.47 (1.62)	2.61 (1.71)	2.43 (1.72)	2.34 (1.75)	2.66 (1.71)
Anger	1.05 (1.01)	1.06 (1.02)	0.91 (0.90)	1.07 (1.12)	1.29 (1.07)	0.97 (0.99)	1.00 (0.99)	1.16 (1.03)
Mania	1.78 (1.62)	1.81 (1.62)	1.97 (1.72)	1.80 (1.69)	1.72 (1.56)	1.85 (1.71)	1.71 (1.61)	1.79 (1.54)
Anxiety	3.10 (2.37)	3.08 (2.44)	2.86 (2.34)	3.29 (2.57)	3.20 (2.35)	2.84 (2.24)	3.08 (2.40)	3.40 (2.21)
Somatic Symptoms	1.32 (1.62)	1.32 (1.55)	1.12 (1.50)	1.41 (1.70)	1.38 (1.69)	1.26 (1.54)	1.32 (1.67)	1.38 (1.68)
Suicidal Ideation	0.25 (0.65)	0.29 (0.70)	0.19 (0.47)	0.20 (0.48)	0.29 (0.78)	0.25 (0.67)	0.23 (0.64)	0.28 (0.69)
Psychosis	0.54 (1.10)	0.61 (1.21)	0.50 (1.21)	0.67 (1.22)	0.48 (1.06)	0.36 (0.78)	0.52 (1.05)	0.53 (1.07)
Sleep Problems	0.98 (1.12)	0.93 (1.12)	0.91 (1.12)	1.04 (1.07)	1.09 (1.13)	0.77 (1.02)	0.97 (1.12)	1.12 (1.16)
Memory	0.85 (1.04)	0.85 (1.06)	0.71 (.95)	0.84 (1.04)	0.78 (0.96)	0.81 (1.04)	0.86 (1.05)	0.95 (1.07)
Repetitive Thoughts and Behaviors	1.96 (1.98)	1.96 (2.01)	1.69 (1.89)	1.94 (1.84)	2.06 (2.03)	1.77 (1.77)	1.95 (1.98)	2.20 (2.07)
Dissociation	0.67 (0.99)	0.69 (0.97)	0.52 (0.90)	0.66 (0.94)	0.61 (1.00)	0.56 (0.98)	0.69 (0.99)	0.73 (1.06)
Personality Functioning	1.88 (1.98)	1.81 (1.93)	1.65 (1.94)	1.82 (1.95)	1.84 (2.09)	1.84 (1.89)	1.86 (1.98)	2.27 (2.11)

Substance Use	0.31 (0.99)	0.34 (1.09)	0.48 (1.20)	0.17 (0.70)	0.34 (1.13)	0.24 (0.98)	0.31 (0.96)	0.22 (0.77)
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Tables S2 and S3 display comparisons between our completers analysis (per pre-registration) and our modified intent-to-treat analysis (mITT). The modified intent-to-treat analysis is reported in the paper.

Table S2. One-sided Bayes Factors

	Small effect prior $s = 0.1$		Moderate effect prior $s = 0.2$		Large effect prior $s = 0.4$	
	Completers	mITT	Completers	mITT	Completers	mITT
DBT Videos, Paid	12.5	13.2	6.3	6.8	3.6	3.6
SSI Order 1, Paid	1.3	1.3	1.4	1.5	2.6	2.6
SSI Order 2, Paid	2.5	2.4	5.2	5.1	9.6	9.6
Placebo, Paid	8.6	8.5	18.6	15.4	31.5	31.5
SSI Order 1, Unpaid	13.4	13.6	27.3	27.5	52.1	52.1
SSI Order 2, Unpaid	1.8	1.8	3.3	3.4	6.6	6.6
Waitlist Control, Paid	1.1	1.0	2.0	1.9	3.7	3.7

Note: Bayes Factors greater than 3 favoring the alternative are in bold

Table S3. Two-sided Bayes Factors

	Small effect prior $s = 0.1$		Moderate effect prior $s = 0.2$		Large effect prior $s = 0.4$	
	Completers	mITT	Completers	mITT	Completers	mITT
DBT Videos, Paid	6.4	6.8	3.2	3.4	1.8	1.8
SSI Order 1, Paid	1.4	1.4	3.8	2.7	5.1	5.1
SSI Order 2, Paid	4.2	4.0	8.5	8.2	16.3	16.3
Placebo, Paid	1.6	1.7	1.3	1.1	2.1	2.1
SSI Order 1, Unpaid	7.7	8.1	17.0	16.6	33.6	33.6
SSI Order 2, Unpaid	3.3	3.2	5.9	6.1	12.3	12.3
Waitlist Control, Paid	1.8	1.8	3.8	3.7	5.1	5.1

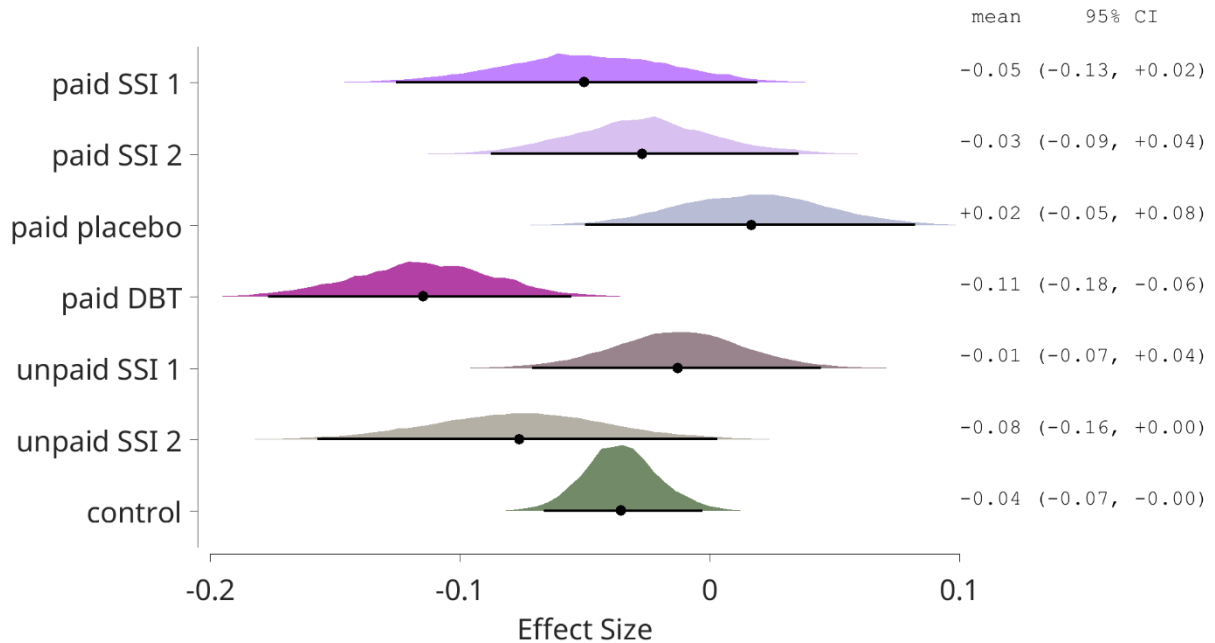
Note: Bayes Factors greater than 3 favoring the alternative are in bold

DSM-5 Crossing Cutting Symptom Measure Analysis

One reviewer raised the concern that the HiTOP measure may not be sensitive to change during our six-week intervention period given that it asked participants to respond based on the previous year. We had also collected the DSM-5 Cross Cutting Symptom measure that asked participants to respond based on the previous two weeks. Figure S2 shows the inferred posterior distributions of the effect sizes for the seven conditions, based on the prior $s = 0.2$. The results were consistent with our primary analyses with strong evidence that the paid DBT video condition resulted in

reduced symptoms on this measure and that change was greater than in the placebo condition (Hypothesis 3).

Figure S2. Posterior distributions of effect sizes for each of the seven conditions on the DSM-5 cross cutting symptom measure.



DBT = Dialectical behavior therapy, SSI = Single session intervention. SSI1 = SSI Order 1, i.e., the ABC Project followed by Project CARE, SSI2 = SSI Order 2, i.e. Project CARE followed by the ABC Project. CI = Credible intervals. Each condition corresponds to a different color distribution. The black dot represents the posterior mean and the heavy black line at the bottom of each distribution represents the 95% credible intervals. The values for the posterior means and 95% credible intervals are displayed to the left of the distributions.

Table S4. Comparison of findings related to our hypotheses comparing the HiTOP and DSM Cross Cutting Symptom Measures

	HiTOP			DSM-5 Crossing Cutting		
	BF ₀₁ (BF ₁₀)	Posterior Mean	95% Credible Interval	BF ₀₁ (BF ₁₀)	Posterior Mean	95% Credible Interval
Hypothesis 1						
Paid SSI1	2.9	-0.03	-0.09, +0.02	2.1	-0.05	-0.13, +0.02
Paid SSI2	7.7	-0.01	-0.06, +0.03	4.1	-0.03	-0.09, +0.04
Paid Placebo	1.0	+0.03	0.00, +0.06	5.3	+0.02	-0.05, +0.08
Paid DBT	(6.3)	-0.04	-0.07, -0.01	(144)	-0.11	-0.18, -0.06
Unpaid SSI1	16.5	+0.01	-0.01, +0.03	6.7	-0.01	-0.07, +0.04
Unpaid SSI2	5.9	-0.02	-0.05, +0.02	(2.8)	-0.08	-0.16, 0.00
Control	3.6	-0.02	-0.04, 0.00	1.1	-0.04	-0.07, 0.00
Hypothesis 2						
Paid SSI1	10.4			-		
DBT	3.5			1(.9)		

Unpaid SSI2	-			4.1		
Hypothesis 3						
Paid SSI1	(6.6)			-		
DBT	(1.4)			(8.3)		
Unpaid SSI2	-			1.0		

Note: Bayes Factors are reported as BF_{01} with the exception of conditions where the one-sided Bayes factor (BF_{10}) was in favor of the direction hypothesis. These Bayes Factors are reported within parentheses. For Hypotheses 2 and 3 we only report Bayes Factors with some indication of change for that condition on Hypothesis 1.

References

76. Doss, R. A., & Lowmaster, S. E. (2022). Validation of the DSM-5 level 1 cross-cutting symptom measure in a community sample. *Psychiatry Research*, 318, 114935.