

Test anxiety: Is it something to worry about?

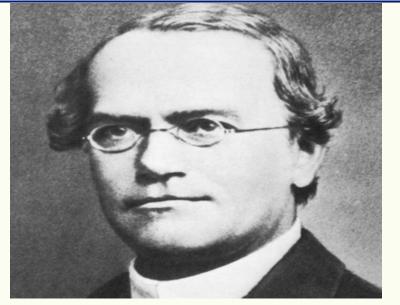
Learning lunch, 26th January 2022

Chris Huntley (C.Huntley@liverpool.ac.uk)



School of Medicine











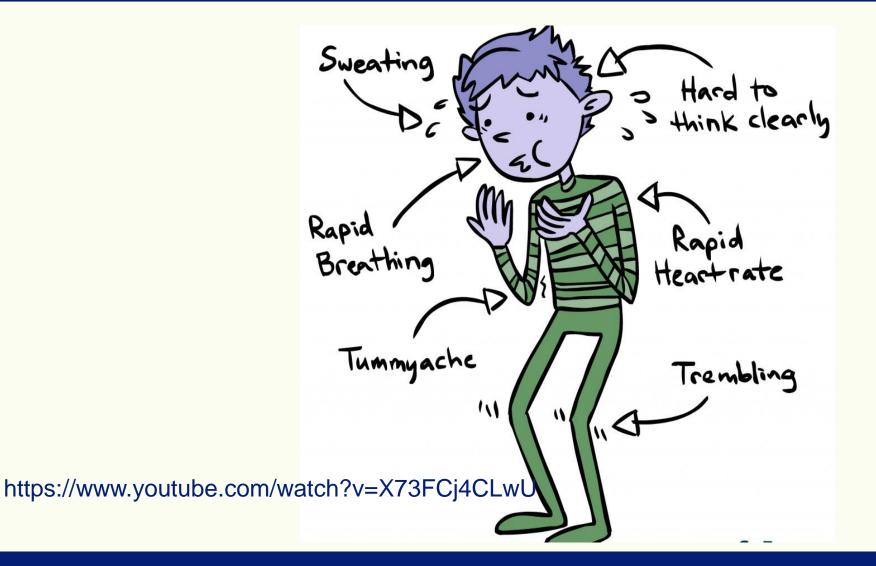
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Test anxiety symptoms



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VNIVERSITY OF LIVERPOOL **Test anxiety & performance**

- TA is associated with worse exam & academic performance (~.21)
- Worry much stronger than emotionality (W ~ -.31, E ~ -.15)
- Not just down to lack of preparedness or study skills
- TA has proximal and distal effects
- Associated with perfectionism, procrastination etc.



EIVERPOOL Test anxiety & mental wellbeing

• TA associated with poorer mental health

- High TA students more likely to drop out or repeat year
- TA associated with greater alcohol and substance abuse

• TA associated with 'cognitive enhancers' (e.g., Adderall)

• Risk of suicide much greater in young people around exams

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UNIVERSITY OF LIVERPOOL Efficacy of interventions for TA?

- Meta-analysis of interventions for TA for university students
- •44 studies
- Moderate effects for reducing TA, small effects for improving exam/academic performance
- Most support for BT
- Lack of long-term data, small samples, RoB, publication bias

Study or Subgroup									
acady or Subgroup	Expo Mean	eriment: SD	il Total	C Mean	ontrol SD	Total	s Weight	Std. Mean Difference IV, Random, 95% C	Std. Mean Difference IV, Random, 95% CI
1.1.1 BT Altmaier 1981	41.1	7.92	10	54	7.73	3	0.8%	-1.52 [-2.99, -0.05]	
Altmaier 1981 Anton 1976	41.1 45.5	7.92 8.84	10 32	54 44.36	7.73	22	0.8%	-1.52 [-2.99, -0.05] 0.11 [-0.43, 0.66] 0.39 [-0.33, 1.12]	
		13.23	15	47	7.41	22 15		0.39 [-0.33, 1.12]	
Bedell, 1976 Bedell, 1976	22.9 23.5	5.04	10	26.1	6.33	2 3 2 3	0.7%	-0.57 [-2.11, 0.97] -0.35 [-1.65, 0.95]	
Bedell, 1976 Redell, 1976	23.5	7.15 8.84	10	26.1 26.1	6.33 6.33	3	0.9%	-0.35 [-1.65, 0.95]	
Bedell, 1976 Bedell, 1976	21.9 20.7	5.98	10 10	26.1	6.33	3	0.7%	-0.45 [-1.98, 1.08] -0.83 [-2.18, 0.51]	
Chang-Liang 1976 Chang-Liang 1976	68.45 79.91	27.58	20 21	86.78	31.94	6 6	1 2%	-0.62 [-1.55, 0.31] -0.23 [-1.13, 0.68]	
Chang-Liang 1976	79.91 66.63	28.98	21	86.78 86.78	31.94 31.94	6	1.2%	-0.23 [-1.13, 0.68]	
Chang-Liang 1976 Counts 1978	24.2	26.64 6.88	23 10	24.15	31.94	5 10	1.1%	-0.71 [-1.70, 0.28] 0.01 [-0.87, 0.89]	-
Counts 1978 Dawley 1973	18.8	7.98	10 12	24.15	3.74	10	1.2%	-0.82 [-1.74, 0.10] -0.87 [-1.60, -0.15]	
Dawley 1973	209.17	29.03	12	238	33.78	24	1.4%	-0.87 [-1.60, -0.15]	
Deffenbacher 1979a	22.77 23.16	7.41 6.68	15 17	36.08 36.08	6.87 6.87	17 18	1.3% 1.3%	-1.82 [-2.66, -0.98] -1.86 [-2.67, -1.05]	
Deffenbacher 1979a Deffenbacher 1979b	23.16	6.7	17	28.2	5.2	10	0.9%	-1.77 [-3.11, -0.43]	
Deffenbacher 1979b	20.36	7.92	9	28.2	5.2	5 5	1.0%	-1.03 [-2.21, 0.15]	
Deffenbacher 1980a	24.92	7.89	14	30.72	5.51		1.3%		
Deffenbacher 1980b Deffenbacher 1980b	28.4 29.46	5.49 8.03	15 16	36.85 36.85	5.63 5.63	16 15	1.3% 1.3%	-1.48 [-2.29, -0.67] -1.03 [-1.79, -0.28]	
Denney 1977	53.8	29.8	13	91.78	28.41	10	1.2%	-1.25 [-2.17, -0.34]	
Denney 1977 Denney 1977		38.8	13 9		28.41 28.41			-1.25 [-2.17, -0.34] -1.08 [-2.06, -0.10]	
Denney 1977 Denney 1977	57.3 51.8	25 35	14 11	91.78 91.78	28.41 28.41	10 9	1.2%	-1.26 [-2.16, -0.36] -1.19 [-2.16, -0.22]	
Denney 1977	51.8	35	11	91.78	28.41 5.4	9	1.1%	-1.19 [-2.16, -0.22]	
Finger 1977 Gallagher 1978	30.02 20.2	6.93 7.18	12 12	35.49 25.2	5.28	24	1.0% 1.4%	-0.78 [-1.95, 0.39] -0.82 [-1.54, -0.10] -1.22 [-1.97, -0.46] -0.58 [-1.54, 0.39]	
Guidry 1975 Holahan 1979	128.08	25.67	12 15	165.5	32.02	24	1.3% 1.1%	-1.22 [-1.97, -0.46]	
Holahan 1979	18.67	7.76	15	23.08	6.05	6	1.1%	-0.58 [-1.54, 0.39]	
Horne 1977 Horne 1977	18.9 11.05	5.07	20 20	21.35 21.35	4.28	5	1.1% 1.0%	-0.48 [-1.47, 0.51]	
Horne 1977	11.05	5.07 3.01	20	21 35	4.28 4.28	5 5	1.1%	-0.48 [-1.47, 0.51] -2.02 [-3.17, -0.86] -1.27 [-2.33, -0.22]	I
Kostka 1974	35	17.89	6	28.85	20.42	6	1.0%	0.30 [-0.85, 1.44]	
Kostka 1974	51.6	12.18	5	28.85	20.42	6 9	0.9%	1.21 [-0.14, 2.55] -0.04 [-0.87, 0.79]	
Levine 1980 Levine 1980	5.07 4.15	1.12 1.41	15 13	5.12 5.12	1.36 1.36	9	1.3% 1.2%	-0.04 [-0.87, 0.79]	
Levine 1980 Levine 1980	4.15	1.41 0.8	13	5.12	1.36	10 9 17	1.2%	-0.67 [-1.52, 0.18] -0.31 [-1.16, 0.53]	
Lomont 1971	32.5	8.17	14 8	35.47	6.61	17	1.3%		
Lurie 1980 Lurie 1980	17.33 21.5	6.25 4.89	6 8	25.57	7.25	5	0.9%	-1.12 [-2.45, 0.20] -0.66 [-1.90, 0.58]	
Lurie 1980 Maxfield 2000	21.5 46.71	4.89 15.16	8	25.57 56	7.25 10.14	4	0.9%	-0.66 [-1.90, 0.58]	
Maxfield 2000 Meichenbaum 1972	46.71	4.1	8	30	4.6	8	1.1% 0.8%	-0.69 [-1.74, 0.37] -0.87 [-2.27, 0.53]	
Melnick 1976 Mitchell 1970	134.89	28.52	9	163.67	19.97	18 6 7	1.2%	-1.21 [-2.08, -0.34] -1.24 [-2.16, -0.31]	
Mitchell 1970	28.45	7.72	31	32.42	3.87	6	1.2%	-1.24 [-2.16, -0.31]	
Prochaska 1971 Prochaska 1971	-2 -0.23	7.72 4.19	13 13	-1.66 -1.66	9.73 9.73	7	1.2% 1.2%	-0.04 [-0.96, 0.88] 0.20 [-0.68, 1.09]	
	-3.67	10.23	13	-1.66	9.73	8	1.2%	-0.19 [-1.08, 0.69]	
Raijah 2014 Reed 1980	-3.67 20.2	5	20	39.5	4	20	1.0%	-0.19 [-1.08, 0.69] -4.18 [-5.32, -3.03]	·──
Reed 1980	28.8	7	9	31.85	5.98	18	1.3%	-0.47 [-1.28, 0.34] 0.69 [-0.46, 1.84]	
Ricketts 1984 Romano 1978	86.54 109.2	26.84 30.11	13 10	67.85 167.8	20.76	4	1.0%	0.69 [-0.46, 1.84] -1.84 [-3.38, -0.29]	
Romano 1978	127.6	38.4	10	167.8	27.6	4	0.9%	-1.05 [-2.29, 0.20]	
Romano 1978	116.2	23.33	10	167.8	27.6	4	0.7%	-1.05 [-2.29, 0.20] -1.99 [-3.57, -0.41]	
Russell 1976 Russell 1976	7	4.9	5	13.7	3.6	3	0.7%	-1.29 [-2.98, 0.39] -0.91 [-2.23, 0.41]	
Russell 1976	9.7 8.2	4.2 3.9	10	13.7 11.4	3.6 4.05	4	0.9%	-0.91 [-2.23, 0.41]	
Russell 1982 Russell 1982	9.8	3.9	10 9	11.4	4.05	6	1.1%	-0.77 [-1.82, 0.29] -0.38 [-1.38, 0.62]	
Russell 1982	7.8 52.3	5.8	6 15	11.4	4.05	7	1.0%	-0.68 [-1.81. 0.45]	
Sapp 1996	52.3	8.63	15	48.58	6.4	15	1.4%	0.48 [-0.25, 1.20]	
Saravanan 2014 Subtotal (95% CI)	19.28	5.56	32 771	38.54	4.29	33 565	1.3% 64.9%	-3.84 [-4.68, -3.00] -0.83 [-1.06, -0.60]	▲
Heterogeneity: Tau ² =	0.55; Chi	² = 192.	17, df =	58 (P <	0.0000	1); I ² = 3	70%	,	•
Heterogeneity: Tau ² = Test for overall effect:	Z = 7.00	(P < 0.00	0001)			.,,			
112087									
1.1.2 CBT Barabasz 1981		3.2	18	7.81	3.2	9	1.2%	-1.24 [-2.120.37]	
1.1.2 CBT Barabasz 1981 Crowley 1986	3.71 45.91	3.2 14.02	18 31	7.81 55.5	3.2 12.94	9 13	1.2% 1.4%	-1.24 [-2.12, -0.37] -0.69 [-1.35, -0.02]	
1.1.2 CBT Barabasz 1981 Crowley 1986 Crowley 1986	3.71 45.91 47.33	14.02 9.84	31 29	55.5 55.5	12.94 12.94	13 14	1.4% 1.4%	-0.69 [-1.35, -0.02]	
Barabasz 1981 Crowley 1986 Crowley 1986 D'Alelio 1981	3.71 45.91 47.33 48	14.02 9.84 12.5	31 29 18	55.5 55.5 56.6	12.94 12.94 11.5	13 14 10	1.4% 1.4% 1.3%	-0.69 [-1.35, -0.02]	
Barabasz 1981 Crowley 1986 Crowley 1986 D'Alelio 1981 D'Alelio 1981	3.71 45.91 47.33 48 42 5	14.02 9.84 12.5 9.9	31 29 18 17	55.5 55.5 56.6	12.94 12.94 11.5 11.5	13 14 10	1.4% 1.4% 1.3% 1.2%	-0.69 [-1.35, -0.02]	
Barabasz 1981 Crowley 1986 D'Alelio 1981 D'Alelio 1981 Decker 1981 Finger 1977	3.71 45.91 47.33 48 42.5 21 28.84	14.02 9.84 12.5 9.9 8.7 8.85	31 29 18 17 9	55.5 55.5 56.6 56.6 24.3 35.49	12.94 12.94 11.5 11.5 8.2 5.4	13 14 10 10 4 4	1.4% 1.4% 1.3% 1.2% 1.0% 1.0%	-0.69 [-1.35, -0.02] -0.73 [-1.39, -0.08] -0.69 [-1.48, 0.11] -1.30 [-2.17, -0.43] -0.36 [-1.55, 0.83] -0.76 [-1.95, 0.42]	
Barabasz 1981 Crowley 1986 Crowley 1986 D'Alelio 1981 D'Alelio 1981 Decker 1981 Finger 1977 Finger 1977	3.71 45.91 47.33 48 42.5 21 28.84 29.98	14.02 9.84 12.5 9.9 8.7 8.85	31 29 18 17 9	55.5 55.5 56.6 24.3 35.49 35.49	12.94 12.94 11.5 11.5 8.2 5.4 5.4	13 14 10 10 4 4	1.4% 1.3% 1.2% 1.0% 1.0% 0.9%	-0.69 [-1.35, -0.02] -0.73 [-1.39, -0.08] -0.69 [-1.48, 0.11] -1.30 [-2.17, -0.43] -0.36 [-1.55, 0.83] -0.76 [-1.95, 0.42]	
Barabasz 1981 Crowley 1986 D'Alelio 1981 D'Alelio 1981 Decker 1981 Finger 1977 Finger 1977 Holaban 1979	3.71 45.91 47.33 48 42.5 21 28.84 29.98 18.33	14.02 9.84 12.5 9.9 8.7 8.85 3.78 5.48	31 29 18 17 9 11 13 12	55.5 55.5 56.6 24.3 35.49 35.49 23.08	12.94 12.94 11.5 11.5 8.2 5.4 5.4 6.05	13 14 10 10 4 4 5	1.4% 1.3% 1.2% 1.0% 1.0% 0.9% 1.0%	-0.69 (-1.35, -0.02) -0.73 (-1.39, -0.08) -0.69 (-1.48, 0.11) -1.30 (-2.17, -0.43) -0.36 (-1.55, 0.83) -0.76 (-1.95, 0.42) -1.26 (-2.48, -0.04) -0.80 (-1.88, 0.29)	
Barabasz 1981 Crowley 1986 Crowley 1986 D'Alelio 1981 D'Alelio 1981 Decker 1981 Finger 1977 Finger 1977 Holahan 1979 Meichenbaum 1972 Orbach 2007	3.71 45.91 47.33 48 42.5 21 28.84 29.98 18.33	14.02 9.84 12.5 9.9 8.7 8.85 3.78 5.48 3.8 9.49	31 29 18 17 9 11 13 12 8	55.5 55.5 56.6 24.3 35.49 35.49 23.08 30 54.25	12.94 12.94 11.5 11.5 8.2 5.4 5.4 6.05	13 14 10 10 4 4 5 2 28	1.4% 1.3% 1.2% 1.0% 1.0% 0.9% 1.0%	-0.69 [-1.36, -0.02] -0.73 [-1.39, -0.08] -0.69 [-1.48, 0.11] -1.30 [-2.17, -0.43] -0.36 [-1.55, 0.83] -0.76 [-1.95, 0.42] -1.26 [-2.48, -0.04] -0.80 [-1.89, 0.29] -1.27 [-2.98, 0.44] -0.66 [-1.19, -0.13]	
Barabasz 1981 Crowley 1986 D'Alelio 1981 D'Alelio 1981 D'Alelio 1981 Finger 1977 Finger 1977 Holahan 1979 Meichenbaum 1972 Orbach 2007	3.71 45.91 47.33 48 42.5 21 28.84 29.98 18.33 24.5 47.31 56.8	14.02 9.84 12.5 9.9 8.7 8.85 3.78 5.48 3.8 9.49	31 29 18 17 9 11 13 12 8 30 42	55.5 55.5 56.6 24.3 35.49 35.49 23.08 30 54.25	12.94 12.94 11.5 11.5 8.2 5.4 6.05 4.6 11.31 13.36	13 14 10 10 4 4 5 2 28	1.4% 1.3% 1.2% 1.0% 0.9% 1.0% 0.7% 1.5% 1.6%	-0.69 [-1.36, -0.02] -0.73 [-1.39, -0.08] -0.69 [-1.48, 0.11] -1.30 [-2.17, -0.43] -0.36 [-1.55, 0.83] -0.76 [-1.95, 0.42] -1.26 [-2.48, -0.04] -0.80 [-1.89, 0.29] -1.27 [-2.98, 0.44] -0.66 [-1.19, -0.13]	
Barabasz 1981 Crowley 1986 Crowley 1986 D'Alelio 1981 D'Alelio 1981 Decker 1981 Flinger 1977 Holahan 1979 Meichenbaum 1972 Orbach 2007 Reiss 2017	3.71 45.91 47.33 48 42.5 21 28.84 29.98 18.33 24.5 47.31 56.8 56.3	14.02 9.84 12.5 9.9 8.7 8.85 3.78 5.48 3.8 9.49 13.08 10.52	31 29 18 17 9 11 13 12 8 30 42 48	55.5 56.6 24.3 35.49 35.49 23.08 30 54.25 57.03 57.03	$12.94 \\ 12.94 \\ 11.5 \\ 8.2 \\ 5.4 \\ 5.4 \\ 6.05 \\ 4.6 \\ 11.31 \\ 13.36 $	13 14 10 4 4 5 2 8 24 24 24	1.4% 1.4% 1.3% 1.0% 1.0% 1.0% 0.7% 1.5% 1.6% 1.6%	-0.69 [-1.36, -0.02] -0.73 [-1.39, -0.08] -0.69 [-1.48, 0.11] -1.30 [-2.17, -0.43] -0.36 [-1.55, 0.43] -0.76 [-1.95, 0.42] -1.26 [-2.48, -0.04] -0.80 [-1.89, 0.29] -1.27 [-2.98, 0.44] -0.60 [-1.19, -0.13] -0.62 [-0.52, 0.48] -0.62 [-0.55, 0.43]	
Barabasz 1981 Crowley 1986 Crowley 1986 D'Alelio 1981 D'Alelio 1981 Decker 1981 Finger 1977 Holahan 1977 Holahan 1979 Meichenbaum 1972 Orbach 2007 Reiss 2017 Reiss 2017	3.71 45.91 47.33 48 42.5 21 28.84 29.98 18.33 24.5 47.31 56.8	14.02 9.84 12.5 9.9 8.7 8.85 3.78 5.48 3.8 9.49	31 29 18 17 9 11 13 12 8 30 42 48 5	55.5 55.5 56.6 24.3 35.49 35.49 23.08 30 54.25	12.94 12.94 11.5 11.5 8.2 5.4 6.05 4.6 11.31 13.36	13 14 10 10 4 4 5 28 24 24 24 5	1.4% 1.4% 1.3% 1.0% 1.0% 1.0% 0.7% 1.5% 1.6% 1.6%	-0.69 [-1.36, -0.02] -0.73 [-1.39, -0.08] -0.69 [-1.48, 0.11] -1.30 [-2.17, -0.43] -0.36 [-1.55, 0.43] -0.76 [-1.95, 0.42] -1.26 [-2.48, -0.04] -0.80 [-1.89, 0.29] -1.27 [-2.98, 0.44] -0.60 [-1.19, -0.13] -0.62 [-0.52, 0.48] -0.62 [-0.55, 0.43]	
Barabasz 1981 Crowley 1986 Crowley 1986 D'Alelio 1981 D'Alelio 1981 Decker 1981 Finger 1977 Holahan 1977 Holahan 1977 Orbach 2007 Reiss 2017 Reiss 2017 Reiss 2017 Reiss 2016 Subtoral (95% Ch	3.71 45.91 47.33 48 42.5 21 28.84 29.98 18.33 24.5 47.31 56.8 56.3 73.4	14.02 9.84 12.5 9.9 8.7 8.85 3.78 5.48 3.8 9.49 13.08 10.52 30.81	31 29 18 17 9 11 13 12 8 30 42 48 15 301	55.5 55.5 56.6 24.3 35.49 35.49 23.08 30 54.25 57.03 57.03 67.85	$12.94 \\ 12.94 \\ 11.5 \\ 8.2 \\ 5.4 \\ 5.4 \\ 6.05 \\ 4.6 \\ 11.31 \\ 13.36 \\ 13.36 \\ 20.76 \\$	13 14 10 4 4 5 2 8 24 24 24	1.4% 1.3% 1.2% 1.0% 0.9% 1.0% 0.7% 1.5% 1.6%	-0.69 [-1.36, -0.02] -0.73 [-1.39, -0.08] -0.69 [-1.48, 0.11] -1.30 [-2.17, -0.43] -0.36 [-1.55, 0.83] -0.76 [-1.95, 0.42] -1.26 [-2.48, -0.04] -0.80 [-1.89, 0.29] -1.27 [-2.98, 0.44] -0.66 [-1.19, -0.13]	
Barabasz 1981 Crowley 1986 Crowley 1986 D'Alelio 1981 D'Alelio 1981 Decker 1981 Finger 1977 Holahan 1977 Holahan 1977 Orbach 2007 Reiss 2017 Reiss 2017 Reiss 2017 Reiss 2016 Subtoral (95% Ch	3.71 45.91 47.33 48 42.5 21 28.84 29.98 18.33 24.5 47.31 56.8 56.3 73.4	14.02 9.84 12.5 9.9 8.7 8.85 3.78 5.48 3.8 9.49 13.08 10.52 30.81	31 29 18 17 9 11 13 12 8 30 42 48 15 301	55.5 56.6 24.3 35.49 35.49 23.08 30 54.25 57.03 57.03	$12.94 \\ 12.94 \\ 11.5 \\ 8.2 \\ 5.4 \\ 5.4 \\ 6.05 \\ 4.6 \\ 11.31 \\ 13.36 \\ 13.36 \\ 20.76 \\$	13 14 10 4 4 5 2 8 24 24 24 24 5 156	1.4% 1.4% 1.3% 1.0% 1.0% 1.0% 0.7% 1.5% 1.6% 1.6%	-0.69 [-1.36, -0.02] -0.73 [-1.39, -0.08] -0.69 [-1.48, 0.11] -1.30 [-2.17, -0.43] -0.36 [-1.55, 0.43] -0.76 [-1.95, 0.42] -1.26 [-2.48, -0.04] -0.80 [-1.89, 0.29] -1.27 [-2.98, 0.44] -0.60 [-1.19, -0.13] -0.62 [-0.52, 0.48] -0.62 [-0.55, 0.43]	
Barabasz 1981 Crowley 1986 Crowley 1986 D'Alelio 1981 D'Alelio 1981 Decker 1981 Finger 1977 Holahan 1979 Meichenbaum 1972 Orbach 2007 Reiss 2017 Ricketts 1984 Subtotal (95% CI) Heterogeneily: Tau ⁹ =	3.71 45.91 47.33 48 42.5 21 28.84 29.98 18.33 24.5 47.31 56.8 56.3 73.4	14.02 9.84 12.5 9.9 8.7 8.85 3.78 5.48 3.8 9.49 13.08 10.52 30.81	31 29 18 17 9 11 13 12 8 30 42 48 15 301	55.5 55.5 56.6 24.3 35.49 35.49 23.08 30 54.25 57.03 57.03 67.85	$12.94 \\ 12.94 \\ 11.5 \\ 8.2 \\ 5.4 \\ 5.4 \\ 6.05 \\ 4.6 \\ 11.31 \\ 13.36 \\ 13.36 \\ 20.76 \\$	13 14 10 4 4 5 2 8 24 24 24 24 5 156	1.4% 1.4% 1.3% 1.0% 1.0% 1.0% 0.7% 1.5% 1.6% 1.6%	-0.69 [-1.36, -0.02] -0.73 [-1.39, -0.08] -0.69 [-1.48, 0.11] -1.30 [-2.17, -0.43] -0.36 [-1.55, 0.43] -0.76 [-1.95, 0.42] -1.26 [-2.48, -0.04] -0.80 [-1.89, 0.29] -1.27 [-2.98, 0.44] -0.60 [-1.19, -0.13] -0.62 [-0.52, 0.48] -0.62 [-0.55, 0.43]	
Barabasz 1981 Crowley 1986 Growley 1986 Drowley 1986 D'Alelio 1981 Decker 1981 Finger 1977 Finger 1977 Meichenbaum 1972 Orbach 2007 Reiss 2017 Reiss 2017 Reiss 2017 Heterogeneity: Tau ² = Test for overall effect: 1.1.3 SST Altmaier 1981	3.71 45.91 47.33 48 42.5 21 28.84 29.98 18.33 24.5 47.31 56.8 56.3 73.4 0.06; Chi Z = 4.47	$\begin{array}{c} 14.02\\ 9.84\\ 12.5\\ 9.9\\ 8.7\\ 8.85\\ 3.78\\ 5.48\\ 9.49\\ 13.08\\ 10.52\\ 30.81\\ r^2=18.56\\ (P<0.06)\end{array}$	31 29 18 17 9 11 13 12 8 30 42 48 15 301	55.5 56.6 56.6 24.3 35.49 35.49 23.08 30 54.25 57.03 67.85	12.94 12.94 11.5 8.2 5.4 6.05 4.6 11.31 13.36 20.76 0.14); I ²	13 14 10 4 4 5 2 8 24 24 24 24 5 156	1.4% 1.3% 1.2% 1.0% 1.0% 0.9% 1.0% 0.7% 1.6% 1.6% 1.6% 1.1%	-0.69 [-1.35, -0.02] -0.73 [-1.39, -0.08] -0.69 [-1.48, 0.11] -1.30 [-2.17, -0.43] -0.71 [-1.95, 0.42] -1.26 [-2.48, -0.04] -0.80 [-1.89, 0.29] -1.27 [-2.98, 0.44] -0.66 [-1.19, -0.13] -0.02 [-0.55, 0.48] -0.03 [-0.55, 0.48] -0.03 [-0.55, 0.43] -0.58 [-0.83, -1.20] -0.58 [-0.83, -0.33]	
Barabasz 1981 Crowley 1986 Crowley 1986 Crowley 1986 Drowley 1987 Decker 1981 Decker 1981 Decker 1981 Decker 1987 Finger 1977 Weichenbaum 1972 Orbach 2007 Reiss 2017 Reiss 2017 Reiss 2017 Heterogeneity: Tau ² = Test for overall effect: 1.1.3 SST Altmaier 1981	3.71 45.91 47.33 48 42.5 21 28.84 29.98 18.33 24.5 47.31 56.8 73.4 0.06; Chi Z = 4.47	14.02 9.84 12.5 9.9 8.7 8.85 3.78 5.48 9.49 13.08 10.52 30.81 P = 18.56 (P < 0.00 12.85 3	31 29 18 17 9 11 13 12 8 30 42 48 15 301 0, df = -	55.5 55.6 56.6 24.3 35.49 35.49 23.08 30 54.25 57.03 67.85 13 (P = 0	12.94 12.94 11.5 8.2 5.4 6.05 4.6 11.31 13.36 20.76 20.76	13 14 10 4 4 4 5 28 24 24 5 156 = 30%	1.4% 1.3% 1.2% 1.0% 1.0% 1.0% 1.0% 1.5% 1.5% 1.6% 1.6% 1.1% 16.9%	-0.69 [-1.35, -0.02] -0.73 [-1.39, -0.08] -0.69 [-1.48, 0.11] -1.30 [-2.17, -0.43] -0.71 [-1.95, 0.42] -1.26 [-2.48, -0.04] -0.80 [-1.89, 0.29] -1.27 [-2.98, 0.44] -0.66 [-1.19, -0.13] -0.02 [-0.55, 0.48] -0.03 [-0.55, 0.48] -0.03 [-0.55, 0.43] -0.58 [-0.83, -1.20] -0.58 [-0.83, -0.33]	
Barabasz 1981 Crowley 1986 Crowley 1986 Crowley 1986 Database Decker 1981 Decker 1981 Decker 1981 Decker 1987 Finger 1977 Heler 1977 Orbach 2007 Reiss 2017 Reiss 2017 Reiss 2017 Reiss 2017 Helerogeneity: Tau ² = Test for overall effect: 1.1.3 SST Altmatier 1981 Decker 1981	3.71 45.91 47.33 48 42.5 21 28.84 42.9,98 18.33 24.5 47.31 56.8 56.8 56.8 56.3 73.4 0.06; Chi Z = 4.47	14.02 9.84 12.5 9.9 8.7 8.85 3.78 5.48 13.08 10.52 30.81 P = 18.5(P < 0.00) 12.85 3 5	31 29 18 17 9 11 13 12 8 30 42 48 300 42 48 301 15 301), df = , 0001)	55.5 55.5 56.6 56.6 24.3 35.49 35.49 23.08 23.08 23.08 57.03 67.85 13 (P = 0 54 7.81 24.3	12.94 12.94 11.5 11.5 8.2 5.4 6.05 4.6 11.31 13.36 20.76 0.14); I ² 7.73 3.2 8.2	13 14 10 4 4 5 28 28 24 24 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1.4% 1.3% 1.2% 1.0% 1.0% 0.9% 1.0% 1.5% 1.6% 1.6% 1.6% 1.1% 16.9%	-0.69 [-1.35, -0.02] -0.73 [-1.39, -0.08] -0.69 [-1.48, 0.11] -1.30 [-2.17, -0.43] -0.36 [-1.56, 0.632] -1.26 [-2.48, -0.04] -0.80 [-1.89, 0.29] -1.27 [-2.98, 0.44] -0.66 [-1.19, -0.13] -0.02 [-0.52, 0.43] -0.06 [-0.55, 0.43] -0.58 [-0.68, -1.33] -0.58 [-0.68, -0.33] -0.58 [-1.41, 0.22] -0.58 [-1.41, 0.22] -0.58 [-1.41, 0.22]	
Barabasz 1981 Crowley 1986 Crowley 1986 D'Alelio 1981 D'Alelio 1981 Decker 1981 Decker 1981 Finger 1977 Holahan 1979 Meichenbaum 1972 Orbach 2007 Ricketts 1984 Subtotal (95% CI) Heterogeneily: Tau ⁹ = Test for overall effect: 1.1.3 SST Altmaier 1981 Barabasz 1981 Hahm 2016	3.71 45.91 47.33 48 42.5 21 28.84 42.9,98 18.33 24.5 47.31 56.8 56.8 56.8 56.3 73.4 0.06; Chi Z = 4.47	14.02 9.84 12.5 9.9 8.7 8.85 3.78 5.48 13.08 10.52 30.81 P = 18.5(P < 0.00) 12.85 3 5	31 29 18 17 9 11 13 12 8 30 42 42 42 42 30 15 301 0, df = 0001) 11 18 8 8 43	55.5 55.5 56.6 56.6 24.3 35.49 35.49 23.08 30 54.25 57.03 57.05 57.55 57	12.94 12.94 11.5 11.5 5.4 5.4 6.05 13.36 13.36 20.76 0.14); I [₽] 7.73 3.2 8.2 9.9	13 14 10 4 4 5 28 28 24 24 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1.4% 1.4% 1.3% 1.0% 1.0% 1.0% 0.9% 1.6% 1.6% 1.6% 1.6% 1.6% 1.6% 1.6%	-0.69 [-1.35, -0.02] -0.73 [-1.39, -0.08] -0.69 [-1.48, 0.11] -1.30 [-2.17, -0.43] -0.36 [-1.56, 0.632] -1.26 [-2.48, -0.04] -0.80 [-1.89, 0.29] -1.27 [-2.98, 0.44] -0.66 [-1.19, -0.13] -0.02 [-0.52, 0.43] -0.06 [-0.55, 0.43] -0.58 [-0.68, -1.33] -0.58 [-0.68, -0.33] -0.58 [-1.41, 0.22] -0.58 [-1.41, 0.22] -0.58 [-1.41, 0.22]	
Barabasz 1981 Crowley 1986 Crowley 1986 Crowley 1986 Drokley 1988 Decker 1981 Decker 1981 Finger 1977 Finger 1977 Holahan 1979 Meisen 1977 Reiss 2017 Reiss 2017 Reiss 2017 Reiss 2017 Reist 1984 Subtotal (95% Crowall effect: 1.1.3 SST Altmaier 1981 Barabasz 1981 Decker 1981 Decker 1981 Herergenet 1981 Barabasz 1981 Decker 1981 Horne 1977	$\begin{array}{c} 3.71\\ 45.91\\ 47.33\\ 48\\ 42.5\\ 211\\ 28.84\\ 29.98\\ 18.33\\ 24.5\\ 47.31\\ 56.8\\ 56.3\\ 73.4\\ 0.006; Chil\\ Z=4.47\\ 52.54\\ 5.93\\ 18.1\\ 51.9\\ 22.1\\ \end{array}$	14.02 9.84 12.5 9.9 8.7 8.85 3.78 5.48 3.8 9.49 13.08 10.52 30.81 r = 18.56 (P < 0.00 (P < 0.00 (P < 0.00) 12.85 9.85 3.27	31 29 18 17 9 11 13 12 8 30 42 48 15 301 15 301 0, df = 0001) 11 18 8 8 30 2001	55.5 55.5 56.6 56.6 24.3 35.49 35.49 35.49 23.08 57.03 67.85 13 (P = 0 54 7.81 13 (P = 0 54 7.81 124.3 48.43 21.35	12.94 12.94 11.5 11.5 8.2 5.4 6.05 4.6 11.31 13.36 13.36 20.76 20.76 20.74 ; I ² 7.73 3.2 8.2 9.9 4.28	13 14 10 4 4 5 28 28 24 24 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1.4% 1.4% 1.3% 1.0% 0.9% 0.7% 1.6% 1.6% 1.6% 1.6% 1.1% 16.9% 1.0% 1.0%	-0.69 [-1.55, -0.02] -0.73 [-1.39, -0.08] -0.69 [-1.48, 0.11] -0.36 [-1.48, 0.11] -0.36 [-1.55, 0.43] -0.37 [-1.95, 0.42] -1.26 [-2.48, -0.04] -0.30 [-2.48, -0.04] -0.66 [-1.19, -0.13] -0.62 [-0.55, 0.43] -0.68 [-0.65, 0.43] -0.68 [-0.65, 0.43] -0.68 [-0.65, -0.43] -0.58 [-0.63, -0.53] -0.12 [-1.26, 1.03] -0.58 [-1.41, 0.22] -0.58 [-1.41, 0.61] -0.63 [-1.87, 0.61] -0.58 [-0.77, 0.71]	
Barabasz 1981 Growley 1986 Growley 1986 DrAlelio 1981 Decker 1981 Decker 1981 Decker 1981 Finger 1977 Finger 1977 Orbach 2007 Reiss 2017 Reiss 2017 Reiss 2017 Reiss 2017 Heterogeneily: Tau ² = Test for overall effect: 1.1.3 SST Altmaier 1981 Barabasz 1981 Barabasz 1981 Hahm 2015 Hahm 2	3.71 45.91 47.33 48 42.5 21 28.84 29.98 18.33 24.5 47.31 56.8 56.3 73.4 0.06; Chi Z = 4.47 52.54 5.93 18.19 24.9 24.9 52.54 5.93 18.19 24.9 24.9 52.54 5.93 18.19 24.9 52.54 5.93 18.19 24.9 52.54 5.93 18.19 18.29	$\begin{array}{c} 14.02\\ 9.84\\ 12.5\\ 9.9\\ 8.7\\ 8.85\\ 3.78\\ 5.48\\ 3.85\\ 3.78\\ 5.48\\ 10.52\\ 30.81\\ 12.85\\ 3\\ 9.5\\ 9.88\\ 3.27\\ 5.7\\ 5.7\\ 5.7\end{array}$	31 29 18 17 9 11 13 12 8 30 42 48 15 301 15 301 0, df = 0001) 11 18 8 8 30 2001	55.5 55.5 56.6 56.6 24.3 35.49 35.49 35.49 35.49 35.49 35.42 57.03 57.03 67.85 13 (P = 0 54 7.81 24.3 48.43 21.35 26.3	12.94 12.94 11.5 11.5 8.2 5.4 6.05 4.6 11.31 13.36 20.76 0.14); I ² 7.73 3.2 8.2 9.9 4.28 5.6	13 14 10 4 4 5 28 28 24 24 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1.4% 1.4% 1.2% 1.2% 1.0% 1.0% 1.0% 1.0% 1.6% 1.6% 1.6% 1.1% 16.9%	-0.69 [-1.55, -0.02] -0.73 [-1.39, -0.08] -0.69 [-1.48, 0.11] -0.36 [-1.48, 0.11] -0.36 [-1.55, 0.43] -0.37 [-1.95, 0.42] -1.26 [-2.48, -0.04] -0.30 [-2.48, -0.04] -0.66 [-1.19, -0.13] -0.62 [-0.55, 0.43] -0.68 [-0.65, 0.43] -0.68 [-0.65, 0.43] -0.68 [-0.65, -0.43] -0.58 [-0.63, -0.53] -0.12 [-1.26, 1.03] -0.58 [-1.41, 0.22] -0.58 [-1.41, 0.61] -0.63 [-1.87, 0.61] -0.58 [-0.77, 0.71]	
Barabasz 1981 Crowley 1986 Crowley 1986 Crowley 1986 Decker 1981 Decker 1981 Decker 1981 Decker 1987 Finger 1977 Pringer 1977 Orbach 2007 Reiss 2017 Reiss 2017 Reiss 2017 Reiss 2017 Heterogeneity: Tau ² = Test for overall effect: 1.1.3 SST Attmatier 1981 Barabasz 1981 Decker 1981 Hahm 2016 Home 1977 Lent 1978 Lent 1978 Lent 1978	3.71 45.91 47.33 48 42.5 21 28.84 29.98 18.33 24.5 47.31 56.8 56.3 73.4 0.06; Chi Z = 4.47 52.54 5.93 18.19 24.9 24.9 52.54 5.93 18.19 24.9 24.9 52.54 5.93 18.19 24.9 52.54 5.93 18.19 24.9 52.54 5.93 18.19 18.29	$\begin{array}{c} 14.02\\ 9.84\\ 12.5\\ 9.9\\ 8.7\\ 8.85\\ 3.78\\ 5.48\\ 3.85\\ 3.78\\ 5.48\\ 10.52\\ 30.81\\ 12.85\\ 3\\ 9.5\\ 9.88\\ 3.27\\ 5.7\\ 5.7\\ 5.7\end{array}$	31 29 18 17 9 11 13 2 48 300 42 48 15 301 0, df = 0001) 11 18 8 43 200 10 8 9	55.5 55.5 56.6 56.6 24.3 35.49 23.08 30 54.25 57.03 67.85 113 (P = 0 54 7.81 24.3 48.43 21.65 26.57 0.22	12.94 12.94 11.5 11.5 8.2 5.4 6.05 4.6 11.31 13.36 13.36 20.76 20.76 20.74 ; I ² 7.73 3.2 8.2 9.9 4.28	13 14 10 4 4 5 28 28 24 24 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1.4% 1.4% 1.2% 1.2% 1.0% 1.0% 1.0% 1.0% 1.6% 1.6% 1.6% 1.1% 16.9%	-0.69 [-1.35, -0.02] -0.73 [-1.39, -0.08] -0.69 [-1.48, 0.11] -1.30 [-2.17, -0.43] -0.71 [-1.56, 0.42] -1.26 [-2.48, -0.04] -0.80 [-1.89, 0.29] -1.27 [-2.80, 0.44] -0.66 [-1.19, .0.13] -0.02 [-0.55, 0.48] -0.08 [-0.55, 0.48] -0.18 [-0.83, -0.33] -0.58 [-0.83, -0.33] -0.58 [-1.47, 0.62] -0.59 [-1.47, 0.62] -0.55 [-0.77, 0.77] 0.21 [-0.77, 1.18] -0.24 [-1.46, 0.67] -0.24 [-1.56, 1067] -0.24 [-1.56, 1067]	
Barabasz 1981 Growley 1986 Growley 1986 DrAlelio 1981 Decker 1981 Decker 1981 Decker 1981 Decker 1981 Decker 1981 Meichenbaum 1972 Orbach 2007 Aliabain 1979 Rickatts 1984 Subtotal (95% Cl) Heterogeneily: Tau ⁹ = Test for overall effect: 1.1.3 SST Alimaier 1981 Barabasz 1981 Hahm 2016 Home 1977 Lurd 1976 Lurd 1976 Lurd 1976	$\begin{array}{c} 3.71\\ 45.91\\ 47.38\\ 42.5\\ 28.84\\ 29.96\\ 18.33\\ 24.5\\ 47.31\\ 56.8\\ 56.3\\ 73.4\\ 0.06; Chi\\ Z=4.47\\ 5.25.54\\ 5.93\\ 18.1\\ 9.25.37\\ -1.11\\ 32.8\\ \end{array}$	$\begin{array}{c} 14.02\\ 9.84\\ 12.5\\ 9.9\\ 8.7\\ 8.85\\ 3.78\\ 5.48\\ 3.8\\ 9.49\\ 13.08\\ 10.52\\ 30.81\\ P=18.5((P<0.00\\ (P<0.00\\ (P<0.00\\ 12.85\\ 9.88\\ 3.27\\ 5.57\\ 5.57\\ 5.57\\ 4.57\\ 2.4\end{array}$	31 29 18 17 9 11 13 12 8 30 428 415 300 428 415 300 15 300 15 300 11 11 18 8 43 20 10 8 9 9 20	55.5 55.5 56.6 56.6 24.3 35.49 35.49 23.08 30 57.03 67.85 13 (P = 0 54 7.81 24.3 24.3 24.3 21.35 26.3 25.57 0.22 32.2	12.94 12.94 11.5 11.5 5.4 5.4 6.05 4.6 11.31 13.36 20.76 0.14); I [₽] 7.73 3.2 2.8 9.9 9.4.28 5.4 5.4 7.25 4.35	13 14 10 10 4 4 5 28 24 25 5 5 5 5 30% 4 9 4 4 6 5 9 5 3 4	1.4% 1.4% 1.2% 1.0% 1.0% 0.9% 1.0% 1.5% 1.6% 1.6% 1.6% 1.5% 1.6% 1.6% 1.3% 0.9% 1.3% 0.9% 1.0%	-0.69 [-1.35, -0.02] -0.73 [-1.39, -0.08] -0.69 [-1.48, 0.11] -0.369 [-1.48, 0.11] -0.376 [-1.95, 0.42] -0.76 [-1.95, 0.42] -0.76 [-1.89, 0.42] -0.27 [-2.48, -0.04] -0.27 [-2.48, -0.04] -0.02 [-0.52, 0.48] -0.02 [-0.55, 0.43] -0.08 [-0.83, -0.33] -0.58 [-0.83, -0.33] -0.58 [-0.83, -0.33] -0.58 [-0.77, 1.79] -0.35 [-0.77, 1.19] -0.24 [-0.77, 1.19] -0.25 [-1.14, 0.057] -0.25 [-1.14, 0.057] -0.25 [-0.58, 1.00] -0.25 [-0.58, 1.00] -0.25 [-0.58, 1.00] -0.25 [-1.14, 0.057] -0.25 [-1.14, 0.057] -0.25 [-1.14, 0.057] -0.25 [-1.14, 0.057] -0.25 [-1.14, 0.057] -0.25 [-0.58, 1.00] -0.25 [-0.	
Barabasz 1981 Crowley 1986 Crowley 1986 Crowley 1986 Droken 1981 Decker 1981 Decker 1981 Finger 1977 Finger 1977 Reiss 2017 Reiss 2017 Reiss 2017 Reiss 2017 Reiss 2017 Test for overal effect: 1.1.3 SST Harabasz 1981 Barabasz 1981 Barabasz 1981 Hahm 2016 Ham 2016 Hahm 2016 Ham 2016 Bicketts 1984 Bicketts 1984 Bicketts 1984	3.71 45.91 47.33 48 42.5 21 28.84 29.98 18.33 24.5 47.31 56.8 56.3 73.4 0.06; Chi Z = 4.47 52.54 5.93 18.19 24.9 24.9 52.54 5.93 18.19 24.9 24.9 52.54 5.93 18.19 24.9 52.54 5.93 18.19 24.9 52.54 5.93 18.19 18.29	$\begin{array}{c} 14.02\\ 9.84\\ 12.5\\ 9.9\\ 8.7\\ 8.85\\ 3.78\\ 5.48\\ 3.85\\ 3.78\\ 5.48\\ 10.52\\ 30.81\\ 12.85\\ 3\\ 9.5\\ 9.88\\ 3.27\\ 5.7\\ 5.7\\ 5.7\end{array}$	31 29 18 17 9 11 13 12 8 30 428 415 300 428 415 300 15 300 15 300 11 11 18 8 43 20 10 8 9 9 20	55.5 55.5 56.6 56.6 24.3 35.49 23.08 30 54.25 57.03 67.85 113 (P = 0 54 7.81 24.3 48.43 21.65 26.57 0.22	12.94 12.94 11.5 11.5 8.2 5.4 6.05 4.6 11.31 13.36 13.36 13.36 13.36 20.76 0.14); I [₽] 7.73 3.2 8.2 9.9 4.28 5.6 7.25 4.35	$\begin{array}{c} 13\\ 14\\ 10\\ 10\\ 4\\ 4\\ 4\\ 5\\ 28\\ 24\\ 24\\ 24\\ 24\\ 25\\ 156\\ 6\\ 30\%\\ 4\\ 46\\ 59\\ 5\\ 3\\ 4\\ 46\\ 59\\ 5\\ 3\\ 4\\ 4\\ 46\\ 59\\ 5\\ 3\\ 4\\ 4\\ 4\\ 6\\ 5\\ 5\\ 3\\ 4\\ 4\\ 4\\ 6\\ 5\\ 5\\ 3\\ 4\\ 4\\ 4\\ 4\\ 6\\ 5\\ 5\\ 3\\ 3\\ 4\\ 4\\ 4\\ 4\\ 5\\ 5\\ 5\\ 3\\ 4\\ 4\\ 4\\ 5\\ 5\\ 5\\ 3\\ 4\\ 4\\ 4\\ 4\\ 5\\ 5\\ 5\\ 5\\ 3\\ 4\\ 4\\ 4\\ 5\\ 5\\ 5\\ 5\\ 3\\ 4\\ 4\\ 4\\ 4\\ 5\\ 5\\ 5\\ 5\\ 5\\ 3\\ 4\\ 4\\ 4\\ 4\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 4\\ 4\\ 4\\ 4\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\$	1.4% 1.4% 1.2% 1.0% 1.0% 0.9% 1.0% 1.5% 1.6% 1.6% 1.6% 1.5% 1.6% 1.6% 1.3% 0.9% 1.3% 0.9% 1.0%	-0.69 [-1.35, -0.02] -0.73 [-1.39, -0.08] -0.69 [-1.48, 0.11] -0.369 [-1.48, 0.11] -0.376 [-1.95, 0.42] -0.76 [-1.95, 0.42] -0.76 [-1.89, 0.42] -0.27 [-2.48, -0.04] -0.27 [-2.48, -0.04] -0.02 [-0.52, 0.48] -0.02 [-0.55, 0.43] -0.08 [-0.83, -0.33] -0.58 [-0.83, -0.33] -0.58 [-0.83, -0.33] -0.58 [-0.77, 1.79] -0.35 [-0.77, 1.19] -0.24 [-0.77, 1.19] -0.25 [-1.14, 0.057] -0.25 [-1.14, 0.057] -0.25 [-0.58, 1.00] -0.25 [-0.58, 1.00] -0.25 [-0.58, 1.00] -0.25 [-1.14, 0.057] -0.25 [-1.14, 0.057] -0.25 [-1.14, 0.057] -0.25 [-1.14, 0.057] -0.25 [-1.14, 0.057] -0.25 [-0.58, 1.00] -0.25 [-0.	
Barabasz 1981 Crowley 1986 Crowley 1986 Crowley 1986 Drowley 1981 Decker 1981 Decker 1981 Decker 1987 Finger 1977 Finger 1977 Orbach 2007 Reiss 2017 Reiss 2017 Reiss 2017 Reiss 2017 Heterogeneily: Tau ² = Test for overall effect: 1.1.3 SST Altmaier 1981 Barabasz 1981 Decker 1981 Hahm 2016 Hams 2017 Lurie 1980 McCordick 1981 Mitchell 1976 Ricketts 1985 Chicketts 1985 Chicketts 1985 Composition 2005 Composition	$\begin{array}{c} 3,71\\ 45,91\\ 47,33\\ 48\\ 425\\ 21\\ 28,84\\ 29,98\\ 18,33\\ 24,91\\ 47,61\\ 56,3\\ 73,4\\ 0.06; Chi, 22,4,47\\ 52,54\\ 50,3\\ 73,4\\ 10,06; Chi, 22,53\\ 18,1\\ 51,9\\ 22,53\\ 18,1\\ 51,9\\ 22,53\\ 13,2,8\\ 60,6\\ 60,6\\ 60,6\\ 13,2,6\\ 14,2,2\\ 14,2,3\\ 14,2,$	$\begin{array}{c} 14.02\\ 9.84\\ 12.5\\ 9.9\\ 8.7\\ 8.85\\ 3.78\\ 5.48\\ 5.48\\ 3.8\\ 3.8\\ 13.08\\ 13.08\\ 10.52\\ 30.81\\ 13.08\\ 10.52\\ 30.81\\ 12.85\\ 3.27\\ 5.57\\ 5.57\\ 4.57\\ 2.4\\ 17.91\\ \end{array}$	31 29 18 17 9 11 13 30 42 48 30 42 48 30 15 301 15 301 15 301 15 301 15 301 15 301 8 9 20 20 20 20 20 20 20 7 67	55.5 56.6 56.6 24.3 35.49 23.08 35.49 23.08 35.49 23.08 35.49 23.08 35.703 67.85 13 (P = 0 57.03 67.85	12.94 12.94 11.5 11.5 5.4 5.4 6.05 4.6 11.3 13.36 20.76 0.14); I ² 7.73 3.22 9.9 9.4.28 5.6 7.25 4.35 1.6 20.76	13 14 10 10 4 4 5 28 28 24 25 5 5 5 5 30% 4 9 9 4 4 5 5 30% 4 9 5 3 4 9 5 3 4 9 5 5 3 4 9 5 5 3 4 9 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1.4% 1.4% 1.2% 1.2% 0.9% 1.0% 1.0% 1.6% 1.6% 1.6% 1.1% 16.9% 1.0% 1.3% 0.9%	-0.69 [-1.35, -0.02] -0.73 [-1.39, -0.08] -0.69 [-1.48, 0.11] -1.30 [-2.17, -0.43] -0.71 [-1.56, 0.42] -1.26 [-2.48, -0.04] -0.80 [-1.89, 0.29] -1.27 [-2.80, 0.44] -0.66 [-1.19, .0.13] -0.02 [-0.55, 0.48] -0.08 [-0.55, 0.48] -0.18 [-0.83, -0.33] -0.58 [-0.83, -0.33] -0.58 [-1.47, 0.62] -0.59 [-1.47, 0.62] -0.55 [-0.77, 0.77] 0.21 [-0.77, 1.18] -0.24 [-1.46, 0.67] -0.24 [-1.56, 1067] -0.24 [-1.56, 1067]	
Barabasz 1981 Crowley 1986 Crowley 1986 Crowley 1986 Crowley 1987 Decker 1981 Decker 1981 Decker 1981 Pinger 1977 Finger 1977 Orbach 2007 Reiss 2017 Reiss 2017 Reiss 2017 Reiss 2017 Heterogeneily: Tau ² = Test for overall effect: 1.1.3 SST Altmaier 1981 Barabasz 1981 Decker 1981 Hahm 2016 Ham	$\begin{array}{c} 3,71\\ 45,91\\ 47,33\\ 48\\ 425\\ 21\\ 28,84\\ 29,98\\ 18,33\\ 24,91\\ 47,61\\ 56,3\\ 73,4\\ 0.06; Chi, 22,4,47\\ 52,54\\ 50,3\\ 73,4\\ 10,06; Chi, 22,53\\ 18,1\\ 51,9\\ 22,53\\ 18,1\\ 51,9\\ 22,53\\ 13,2,8\\ 60,6\\ 60,6\\ 60,6\\ 13,2,6\\ 14,2,2\\ 14,2,3\\ 14,2,$	$\begin{array}{c} 14.02\\ 9.84\\ 12.5\\ 9.9\\ 8.7\\ 8.85\\ 3.78\\ 5.48\\ 5.48\\ 3.8\\ 3.8\\ 13.08\\ 13.08\\ 10.52\\ 30.81\\ 13.08\\ 10.52\\ 30.81\\ 12.85\\ 3.27\\ 5.57\\ 5.57\\ 4.57\\ 2.4\\ 17.91\\ \end{array}$	31 29 18 17 9 11 13 30 42 48 30 42 48 30 15 301 15 301 15 301 15 301 15 301 15 301 8 9 20 20 20 20 20 20 20 7 67	55.5 56.6 56.6 24.3 35.49 23.08 35.49 23.08 35.49 23.08 35.49 23.08 35.703 67.85 13 (P = 0 57.03 67.85	12.94 12.94 11.5 11.5 5.4 5.4 6.05 4.6 11.3 13.36 20.76 0.14); I ² 7.73 3.22 9.9 9.4.28 5.6 7.25 4.35 1.6 20.76	13 14 10 10 4 4 5 28 28 24 25 5 5 5 5 30% 4 9 9 4 4 5 5 30% 4 9 5 3 4 9 5 3 4 9 5 5 3 4 9 5 5 3 4 9 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1.4% 1.4% 1.2% 1.0% 1.0% 0.9% 1.0% 1.5% 1.6% 1.6% 1.6% 1.5% 1.6% 1.6% 1.3% 0.9% 1.3% 0.9% 1.0%	-0.69 [-1.35, -0.02] -0.73 [-1.39, -0.08] -0.69 [-1.48, 0.11] -0.369 [-1.48, 0.11] -0.376 [-1.95, 0.42] -0.76 [-1.95, 0.42] -0.76 [-1.89, 0.42] -0.27 [-2.48, -0.04] -0.27 [-2.48, -0.04] -0.02 [-0.52, 0.48] -0.02 [-0.55, 0.43] -0.08 [-0.83, -0.33] -0.58 [-0.83, -0.33] -0.58 [-0.83, -0.33] -0.58 [-0.77, 1.79] -0.35 [-0.77, 1.19] -0.24 [-0.77, 1.19] -0.25 [-1.14, 0.057] -0.25 [-1.14, 0.057] -0.25 [-0.58, 1.00] -0.25 [-0.58, 1.00] -0.25 [-0.58, 1.00] -0.25 [-1.14, 0.057] -0.25 [-1.14, 0.057] -0.25 [-1.14, 0.057] -0.25 [-1.14, 0.057] -0.25 [-1.14, 0.057] -0.25 [-0.58, 1.00] -0.25 [-0.	
Barabasz 1981 Crowley 1986 Crowley 1986 Dralelio 1981 Dralelio 1981 Decker 1981 Poleio 1981 Decker 1981 Finger 1977 Holanan 1979 Meichenbaum 1972 Orbach 2007 Reiss 2017 Reiss 2017 Reiss 2017 Reiss 2017 Heterogeneity: Tau ³ = Test for overail effect: 1.1.3 SST Altmaier 1981 Barabasz 1981 Decker 1980 Milchell 1975 Ricketts 1984 Subtotal (95% CI) Heterogeneity: Tau ³ = Test for overail effect: Subtotal (95% CI) Heterogeneity: Tau ³ = Test for overail effect: Heterogeneity: Tau ³ =	$\begin{array}{c} 3,71\\ 45,91\\ 47,33\\ 48\\ 425\\ 21\\ 28,84\\ 29,98\\ 18,33\\ 24,91\\ 47,61\\ 56,3\\ 73,4\\ 0.06; Chi, 22,4,47\\ 52,54\\ 50,3\\ 73,4\\ 10,06; Chi, 22,53\\ 18,1\\ 51,9\\ 22,53\\ 18,1\\ 51,9\\ 22,53\\ 13,2,8\\ 60,6\\ 60,6\\ 60,6\\ 13,2,6\\ 14,2,2\\ 14,2,3\\ 14,2,$	$\begin{array}{c} 14.02\\ 9.84\\ 12.5\\ 9.9\\ 8.7\\ 8.85\\ 3.78\\ 5.48\\ 5.48\\ 3.8\\ 3.8\\ 13.08\\ 13.08\\ 10.52\\ 30.81\\ 13.08\\ 10.52\\ 30.81\\ 12.85\\ 3.27\\ 5.57\\ 5.57\\ 4.57\\ 2.4\\ 17.91\\ \end{array}$	31 29 18 17 9 11 13 30 42 48 30 42 48 30 15 301 15 301 15 301 15 301 15 301 15 301 8 9 20 20 20 20 20 20 20 7 67	55.5 56.6 56.6 24.3 35.49 23.08 35.49 23.08 35.49 23.08 35.49 23.08 35.703 67.85 13 (P = 0 57.03 67.85	12.94 12.94 11.5 11.5 5.4 5.4 6.05 4.6 11.3 13.36 20.76 0.14); I ² 7.73 3.22 9.9 9.4.28 5.6 7.25 4.35 1.6 20.76	13 14 10 10 4 4 5 28 28 24 25 5 5 5 5 30% 4 9 9 4 4 5 5 30% 4 9 5 3 4 9 5 3 4 9 5 5 3 4 9 5 5 3 4 9 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1.4% 1.4% 1.2% 1.0% 1.0% 0.9% 1.0% 1.5% 1.6% 1.6% 1.6% 1.5% 1.6% 1.6% 1.3% 0.9% 1.3% 0.9% 1.0%	-0.69 [-1.35, -0.02] -0.73 [-1.39, -0.08] -0.69 [-1.48, 0.11] -0.369 [-1.48, 0.11] -0.376 [-1.95, 0.42] -0.76 [-1.95, 0.42] -0.76 [-1.89, 0.42] -0.27 [-2.48, -0.04] -0.27 [-2.48, -0.04] -0.02 [-0.52, 0.48] -0.02 [-0.55, 0.43] -0.08 [-0.83, -0.33] -0.58 [-0.83, -0.33] -0.58 [-0.83, -0.33] -0.58 [-0.77, 1.79] -0.35 [-0.77, 1.19] -0.24 [-0.77, 1.19] -0.25 [-1.14, 0.057] -0.25 [-1.14, 0.057] -0.25 [-0.58, 1.00] -0.25 [-0.58, 1.00] -0.25 [-0.58, 1.00] -0.25 [-1.14, 0.057] -0.25 [-1.14, 0.057] -0.25 [-1.14, 0.057] -0.25 [-1.14, 0.057] -0.25 [-1.14, 0.057] -0.25 [-0.58, 1.00] -0.25 [-0.	
Barabasz 1981 Crowley 1986 Crowley 1986 Crowley 1986 Decker 1981 Decker 1981 Decker 1981 Decker 1987 Finger 1977 Finger 1977 Orbach 2007 Reiss 2017 Reiss 2017 Reiss 2017 Reiss 2017 Reiss 2017 Heterogeneily: Tau ² = Test for overall effect: 1.1.3 SST Altmaiser 3981 Decker 1981 Hahm 2016 Home 1977 Lent 1978 Lent 1978 Licketts 1984 Subtotal (95% CI) Subtotal (95% CI) Heterogeneily: Tau ² = Test for overall effect: 1.1.4 Combined	$\begin{array}{c} 3,71\\ 45,91\\ 47,33\\ 88\\ 42,5\\ 28,44\\ 28,96\\ 18,33\\ 24,5\\ 56,4\\ 73,4\\ 56,8\\ 56,4\\ 73,4\\ 56,6\\ 73,4\\ 73,4\\ 56,6\\ 73,4\\ 73,4\\ 52,54$	$\begin{array}{l} 14.02\\ 9.84\\ 12.5\\ 9.8\\ 8.7\\ 8.85\\ 3.78\\ 5.48\\ 3.8\\ 9.49\\ 13.08\\ 10.52\\ 30.81\\ P=18.5((P<0.01)\\ P=18.5((P<0.01)\\ 12.85\\ 9.88\\ 3.27\\ 4.57\\ 4.57\\ 4.57\\ 2.4\\ 17.91\\ P=6.98, (P=0.96)\\ (P=0.96)\\$	31 299 188 17 9 11 13 12 8 300 42 48 300 10001) 11 18 8 43 200 167 df = 9))	55.5 56.6 56.6 24.3 35.49 35.49 35.49 35.45 57.03 57.03 67.85 13 (P = 0 54.25 57.03 67.85 13 (P = 0 54.25 57.03 57	$\begin{array}{c} 12.94\\ 12.94\\ 12.94\\ 12.94\\ 12.94\\ 12.94\\ 12.94\\ 12.94\\ 12.94\\ 11.5\\ 11.5\\ 5.4\\ 6.05\\ 4.6\\ 13.36\\ 13.36\\ 13.36\\ 13.36\\ 13.36\\ 13.36\\ 13.36\\ 13.36\\ 13.36\\ 13.36\\ 13.36\\ 13.36\\ 20.76\\ 20.76\\ 4.28\\ 1.6\\ 20.76\\ 1.6\\ 1.6\\ 1.6\\ 1.6\\ 1.6\\ 1.6\\ 1.6\\ 1.$	13 14 10 10 4 4 4 5 2 24 224 156 = 30% 4 9 5 5 4 4 9 5 5 4 4 9 5 5 4 4 9 5 5 2 2 4 9 5 5 9 5 3 4 9 5 5 5 9 5 5 9 5 5 2 9 5 5 5 9 5 9 5 9	1.4% 1.4% 1.2% 1.0% 1.0% 1.0% 0.7% 0.7% 1.0% 1.6% 1.6% 1.6% 1.1% 1.3% 1.9% 1.2%	-0.69 [-1.55, 0.02] -0.73 [-1.39, -0.08] -0.73 [-1.39, -0.08] -0.76 [-1.48, 0.11] -0.36 [-1.55, 0.43] -0.76 [-1.95, 0.42] -0.77 [-2.48, -0.04] -0.66 [-1.19, -0.13] -0.66 [-1.19, -0.13] -0.68 [-0.55, 0.43] -0.68 [-0.55, 0.43] -0.68 [-0.55, 0.43] -0.68 [-0.65, 0.43] -0.68 [-0.65, 0.43] -0.68 [-0.65, 0.43] -0.68 [-0.65, 0.43] -0.68 [-0.65, 0.43] -0.68 [-0.63, -0.33] -0.58 [-0.63, -0.33] -0.58 [-0.63, -0.33] -0.58 [-0.63, -0.58] -0.58 [-0.61, 0.61] -0.24 [-1.14, 0.67] -0.24 [-1.15, 1.06] -0.24 [-1.15, 1.04] -0.25 [-1.58, 1.04] -0.32 [-0.25, 0.28]	
Barabasz 1981 Crowley 1986 Crowley 1986 Crowley 1986 Crowley 1987 Decker 1981 Decker 1981 Pinger 1977 Finger 1977 Orbach 2007 Reiss 2017 Reiss 2017 Reiss 2017 Reiss 2017 Reiss 2017 Heterogeneily: Tau ² = Test for overall effect: 1.1.3 SST Altmaier 1981 Barabasz 1981 Decker 1981 Hahm 2016 Hahm 20	$\begin{array}{c} 3,71\\ 45,91\\ 47,33\\ 48\\ 42,9\\ 21\\ 28,84\\ 42,93\\ 11245\\ 24,93\\ 56,8\\ 73,4\\ 0.06; Chil\\ 5,6,3\\ 73,4\\ 0.06; Chil\\ 5,93\\ 18,1\\ 51,6\\ 9\\ 22,1\\ 13,28\\ 60,6\\ 0.00; Chil\\ 2=0,12\\ z=0,12\\ z=0,$	$\begin{array}{l} 14.02\\ 9.84\\ 12.5\\ 9.8\\ 9.9\\ 8.7\\ 8.85\\ 3.78\\ 5.48\\ 3.8\\ 9.49\\ 13.08\\ 10.52\\ 30.81\\ 10.52\\ 30.81\\ (P<0.00\\ 12.85\\ 9.88\\ 3.27\\ 5.57\\ 5.57\\ 2.4\\ 17.91\\ 7.50\\ (P=0.90\\ 8.15\\ \end{array}$	31 29 18 17 12 13 12 12 8 30 42 48 15 30 42 48 15 30 60 10 10 8 43 20 10 8 9 20 167 167 10 9))	55.5 56.6 56.6 56.6 24.3 35.49 35.49 35.49 35.05 57.03 57.03 67.85 13 (P = 0 54 25.37 48.43 21.35 26.33 25.57 0.22 32.2 67.85 (P = 0.6	12:94 12:94 12:94 12:94 12:94 8.2 5.4 6.05 4.6 11:31 13:36 20.76 0.14); I ² 7.73 3.22 8.2 9.9 9.4.28 5.6 7.25 4.35 1.6 20.76 20.76	$\begin{array}{c} 13\\ 14\\ 10\\ 10\\ 2\\ 4\\ 4\\ 5\\ 2\\ 24\\ 24\\ 5\\ 156\\ =\\ 30\%\\ 4\\ 46\\ 5\\ 9\\ 3\\ 4\\ 46\\ 5\\ 9\\ 9\\ 3\\ 9\\ 3\\ 9\\ 3\\ 2\%\\ 4\\ 4\\ 4\\ 6\\ 5\\ 9\\ 3\\ 3\\ 4\\ 4\\ 4\\ 6\\ 5\\ 9\\ 3\\ 3\\ 2\%\\ 4\\ 4\\ 4\\ 4\\ 6\\ 5\\ 9\\ 3\\ 3\\ 2\%\\ 4\\ 4\\ 4\\ 4\\ 4\\ 6\\ 5\\ 9\\ 3\\ 3\\ 2\%\\ 4\\ 4\\ 4\\ 4\\ 4\\ 4\\ 5\\ 5\\ 9\\ 3\\ 3\\ 2\%\\ 4\\ 4\\ 4\\ 4\\ 4\\ 5\\ 5\\ 5\\ 5\\ 3\\ 4\\ 4\\ 4\\ 4\\ 4\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 3\\ 4\\ 4\\ 4\\ 4\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\$	1.4% 1.4% 1.2% 1.0% 1.0% 0.0% 0.7% 1.6% 1.6% 1.6% 1.6% 1.1% 1.3% 0.9% 1.1% 1.1% 1.1% 1.1% 1.1%	-0.69 [-1.35, -0.02] -0.73 [-1.39, -0.08] -0.69 [-1.48, 0.11] -1.30 [-2.47, 6, 0.43] -0.76 [-1.95, 0.42] -1.26 [-2.48, -0.04] -0.30 [-1.89, 0.29] -1.27 [-2.80, 0.44] -0.07 [-1.92, 0.043] -0.07 [-1.92, 0.13] -0.08 [-0.55, 0.43] -0.08 [-0.55, 0.43] -0.08 [-0.55, 0.43] -0.08 [-0.55, 0.43] -0.08 [-0.55, 0.43] -0.58 [-0.63, -0.33] -0.58 [-0.63, -0.33] -0.59 [-1.41, 0.22] -0.58 [-0.83, -0.33] -0.25 [-0.83, -1.33] -0.25 [-0.84, 1.33] -0.25 [-0.84, 1.33] -0.26 [-0.25, 0.28] -0.02 [-1.25, 0.28]	
Barabasz 1981 Crowley 1986 Crowley 1986 Crowley 1986 Crowley 1987 Decker 1981 Decker 1981 Decker 1981 Finger 1977 Finger 1977 Orbach 2007 Reiss 2017 Reiss 2017 Reiss 2017 Reiss 2017 Reiss 2017 Heterogeneity: Tau ² = Test for overall effect: 1.1.3 SST Altmaier 1981 Barabasz 1981 Decker 1981 Heterogeneity: Tau ² = Decker 1981 Heterogeneity: Tau ² = Test for overall effect: 1.1.4 Combined Altmaier 1981 Heterogeneity: Tau ² = Test for overall effect: 1.1.4 Combined Altmaier 1981 Lent 1978	$\begin{array}{c} 3,71\\ 45,91\\ 47,33\\ 88\\ 42,5\\ 28,44\\ 28,96\\ 18,33\\ 24,5\\ 56,4\\ 73,4\\ 56,8\\ 56,4\\ 73,4\\ 56,6\\ 73,4\\ 73,4\\ 56,6\\ 73,4\\ 73,4\\ 52,54$	$\begin{array}{l} 14.02\\ 9.84\\ 12.5\\ 9.8\\ 8.7\\ 8.85\\ 3.78\\ 5.48\\ 3.8\\ 9.49\\ 13.08\\ 10.52\\ 30.81\\ P=18.5((P<0.01)\\ P=18.5((P<0.01)\\ 12.85\\ 9.88\\ 3.27\\ 4.57\\ 4.57\\ 4.57\\ 2.4\\ 17.91\\ P=6.98, (P=0.96)\\ (P=0.96)\\$	31 299 19 17 17 17 12 8 300 42 48 300 42 48 301 15 301 15 301 15 301 11 18 8 8 43 20 10 0001) 11 167 df = 9 200 200 1667 11 11 10 200 111 11 10 10 10 10 10 10 10 10 10 10	55.5 56.6 56.6 56.6 24.3 35.49 35.49 36.425 57.03 57.03 67.85 57.03 67.85 13 (P = 0 7.81 24.33 21.35 26.3 25.57 0.22 32.22 67.85 (P = 0.6 (P = 0.6 254 26.3 26.3 26.3 26.3	$\begin{array}{c} 12.94\\ 12.94\\ 12.94\\ 11.5\\ 8.2\\ 5.4\\ 6.05\\ 4.6\\ 11.31\\ 13.36\\ 13.36\\ 20.76\\ 0.14); I^{2}\\ 7.73\\ 3.2\\ 8.2\\ 9.9\\ 4.28\\ 5.6\\ 7.25\\ 4.35\\ 1.6\\ 20.76\\ 4); I^{2}=0\\ 7.73\\ 5.6\\ 5.6\\ 5.6\\ 5.6\\ 5.6\\ 5.6\\ 5.6\\ 5.6$	13 14 10 10 4 4 4 5 2 24 224 156 = 30% 4 9 5 5 4 4 9 5 5 4 4 9 5 5 4 4 9 5 5 2 2 4 9 5 5 9 5 3 4 9 5 5 5 9 5 5 9 5 5 2 9 5 5 5 9 5 9 5 9	1.4% 1.4% 1.3% 1.2% 1.0% 0.9% 1.0% 0.7% 1.6% 1.6% 1.6% 1.1% 1.6% 1.3% 0.6% 1.1% 1.6% 1.2%	-0.69 [-1.55, 0.02] -0.73 [-1.39, -0.08] -0.73 [-1.39, -0.08] -0.76 [-1.48, 0.11] -0.36 [-1.55, 0.43] -0.76 [-1.95, 0.42] -1.26 [-2.48, -0.04] -0.67 [-1.9, 0.24] -0.68 [-1.9, 0.13] -0.68 [-0.55, 0.43] -0.68 [-0.55, 0.43] -0.68 [-0.65, 0.43] -0.68 [-0.65, 0.43] -0.68 [-0.65, 0.43] -0.68 [-0.65, 0.43] -0.58 [-0.65, 0.43] -0.58 [-0.63, -0.33] -0.58 [-0.63, -0.33] -0.58 [-0.77, 1.19] -0.24 [-1.14, 0.67] -0.32 [-1.58, 1.03] -0.32 [-0.77, 1.19] -0.24 [-1.14, 0.67] -0.32 [-0.58, 0.61] -0.32 [-0.58, 0.11] -1.58 [-2.65, -0.51]	
Barabasz 1981 Growley 1986 Growley 1986 DrAlelio 1981 Decker 1981 Decker 1981 Decker 1981 Decker 1981 Decker 1987 Holanan 1979 Meichenbaum 1972 Orbach 2007 Reiss 2017 Ricketts 1984 Subtotal (95% Cl) Heterogeneily: Tau ⁹ = Test for overall effect: 1.1.3 SST Altmaier 1981 Barabasz 1981 Home 1977 Lurie 1980 Home 1977 Lurie 1980 Mitchell 1975 Ricketts 1984 Subtotal (95% Cl) Heterogeneily: Tau ⁹ = Test for overall effect: 1.1.4 Combined Altmaier 1981 Lent 1975 Ricketts 1984 Subtotal (95% Cl) Heterogeneily: Tau ⁹ = 1.1.4 Combined Altmaier 1981 Lent 1978 Ricketts 1984 Subtotal (95% Cl) Heterogeneily: Tau ⁹ = 1.1.4 Combined Altmaier 1981 Lent 1978 Michoell 1978	$\begin{array}{c} 3.71\\ 46.91\\ 47.33\\ 48\\ 42.9.68\\ 18.33\\ 24.43\\ 85.68\\ 56.3\\ 56.8\\ 56.6\\ 56.8\\ 56.6\\ 56.8\\ 56.8\\ 56.8\\ 56.8\\ 56.8\\ 56.9\\ 56.8\\ 56.9\\ 56.8\\ 56.9\\ 56.9\\ 22.1\\ 1.2\\ 4.36\\ 60.6\\ 60.0\\ 1.2\\ 1.2\\ 1.2\\ 1.2\\ 1.2\\ 1.2\\ 1.2\\ 1.2$	$\begin{array}{c} 14.02\\ 9.84\\ 12.5\\ 9.8\\ 9.8\\ 12.5\\ 9.9\\ 8.7\\ 8.85\\ 3.78\\ 3.78\\ 3.78\\ 3.78\\ 3.78\\ 3.78\\ 3.78\\ 3.78\\ 3.78\\ 13.08\\ 10.52\\ 30.81\\ 12.85\\ 9.88\\ 3.27\\ 5.57\\ 2.4\\ 17.91\\ 9.88\\ 3.27\\ 5.57\\ 2.4\\ 17.91\\ 9.88\\ 3.88\\ 3.27\\ 5.57\\ 2.4\\ 17.91\\ 8.15\\ 6.9\\ 6.6\\ 4.58\\ \end{array}$	311 29 188 17 9 11 13 32 28 30 30 11 13 8 30 30 10 0, df = - 9 9 9 9 20 20 20 167 46 = 9)) 11 11 11 10 10 10 10 10 10 10 10 10 10	55.5 56.6 55.5 56.6 24.3 35.49 35.49 35.49 35.49 57.03 67.85	$\begin{array}{c} 12.94\\ 12.94\\ 12.94\\ 11.5\\ 8.2\\ 5.4\\ 6.05\\ 4.6\\ 11.3\\ 13.36\\ 20.76\\ 0.14); ^p\\ 7.73\\ 3.2\\ 8.2\\ 0.76\\ 4.25\\ 1.6\\ 20.76\\ 4.35\\ 1.6\\ 20.76\\ 4.35\\ 1.6\\ 20.76\\ 4.35\\ 1.6\\ 20.76\\ 4.35\\ 1.6\\ 20.76\\ 4.35\\ 1.6\\ 20.76\\ 4.35\\ 1.6\\ 3.6\\ 5.6\\ 5.6\\ 5.6\\ 5.6\\ 5.6\\ 5.6\\ 5.6\\ 5$	13 14 14 10 10 4 4 4 5 228 24 24 24 24 24 24 24 24 24 24 24 5 5 5 5	1.4% 1.4% 1.3% 1.2% 1.0% 0.9% 1.0% 0.7% 1.6% 1.6% 1.6% 1.1% 1.6% 1.3% 0.6% 1.1% 1.6% 1.2%	-0.69 [-1.55, 0.02] -0.73 [-1.39, -0.08] -0.73 [-1.39, -0.08] -0.76 [-1.48, 0.11] -0.36 [-1.55, 0.43] -0.76 [-1.95, 0.42] -1.26 [-2.48, -0.04] -0.67 [-1.9, 0.24] -0.68 [-1.9, 0.13] -0.68 [-0.55, 0.43] -0.68 [-0.55, 0.43] -0.68 [-0.65, 0.43] -0.68 [-0.65, 0.43] -0.68 [-0.65, 0.43] -0.68 [-0.65, 0.43] -0.58 [-0.65, 0.43] -0.58 [-0.63, -0.33] -0.58 [-0.63, -0.33] -0.58 [-0.77, 1.19] -0.24 [-1.14, 0.67] -0.32 [-1.58, 1.03] -0.32 [-0.77, 1.19] -0.24 [-1.14, 0.67] -0.32 [-0.58, 0.61] -0.32 [-0.58, 0.11] -1.58 [-2.65, -0.51]	
Barabasz 1981 Crowley 1986 Crowley 1986 Crowley 1986 Decker 1981 Decker 1981 Decker 1981 Decker 1987 Finger 1977 Finger 1977 Orbach 2007 Reiss 2017 Reiss 2017 Re	$\begin{array}{c} 3.71\\ 45.91\\ 47.33\\ 4426\\ 88.4\\ 29.98\\ 11326\\ 56.8\\ 56.8\\ 56.8\\ 56.8\\ 56.8\\ 57.3\\ 47.31\\ 51.1\\ 51.2\\ 24.9\\ 22.54\\ 59.3\\ 18.1\\ 51.2\\ 24.9\\ 22.49\\ 22.49\\ 22.49\\ 22.49\\ 22.49\\ 22.49\\ 22.49\\ 24.9\\ 24.9\\ 24.9\\ 24.9\\ 24.9\\ 25.54\\ 18.1\\ 31.6\\ 18.1\\ 31.6\\ 30.0\\ 31.6\\ 18.1\\ 32.6\\ 31.6\\ 31.6\\ 31.6\\ 31.6\\ 32.$	$\begin{array}{c} 14.02\\ 9.84\\ 12.5\\ 9.9\\ 8.7\\ 8.85\\ 3.78\\ 8.85\\ 3.78\\ 8.85\\ 3.78\\ 3.78\\ 10.52\\ 30.81\\ 10.52\\ 30.81\\ 12.85\\ 3.27\\ 5.57\\ 5.57\\ 5.57\\ 5.57\\ 5.57\\ 4.24\\ 17.91\\ 9.6\\ 9.88\\ 3.27\\ 6.6\\ 9.88\\ 3.45\\ 12.85\\ 9.88\\ 3.45\\ 14.55\\ 4.54\\ 15.55\\ 6.6\\ 4.58\\ 4.15\\ 6.9\\ 6.45\\ 8.15\\ 6.9\\ 6.5\\ 6.9\\ 6.5\\ 6.9\\ 6.5\\ 6.9\\ 6.5\\ 6.5\\ 6.5\\ 6.5\\ 6.5\\ 6.5\\ 6.5\\ 6.5$	311 29 18 18 17 9 9 11 13 30 30 42 28 8 15 30 1 30 14 11 11 11 11 10 20 20 20 20 00 167 9 9 20 00 167 9 11 11 11 11 11 11 13 12 12 8 8 8 13 11 11 13 13 12 9 11 11 13 13 12 9 11 11 13 13 12 9 11 11 13 13 13 13 13 13 13 13 13 13 13	55.5 56.6 55.5 56.6 24.3 35.49 35.49 35.49 35.49 57.03 57.22 57.03 57.03 57.03 57.03 57.03 57.22 57.03 57.22 57.23 57.25	$\begin{array}{c} 12.94\\ 12.94\\ 12.94\\ 11.5\\ 8.2\\ 5.4\\ 6.05\\ 4.6\\ 11.31\\ 13.36\\ 13.36\\ 20.76\\ 0.14); ^{p}\\ 7.73\\ 3.2\\ 8.2\\ 9.9\\ 4.28\\ 5.6\\ 7.25\\ 4.35\\ 1.6\\ 20.76\\ 4); ^{p}=0\\ 7.73\\ 5.6\\ 5.6\\ 5.6\\ 4.35\\ 1.6\\ 5.6\\ 4.35\\ 1.6\\ 5.6\\ 5.6\\ 5.6\\ 5.6\\ 5.6\\ 5.6\\ 5.6\\ 5$	13 14 14 10 10 4 4 4 5 228 24 24 24 24 24 24 24 24 24 24 24 5 5 5 5	1.4% 1.3% 1.2% 1.2% 1.0% 0.9% 1.0% 0.7% 1.6% 1.6% 1.6% 1.1% 1.6% 1.3% 0.9% 1.6% 1.3% 0.8% 1.1% 1.2%	-0.69 [-1.35, -0.02] -0.73 [-1.39, -0.08] -0.73 [-1.39, -0.08] -0.76 [-1.48, 0.41] -0.36 [-1.48, 0.42] -0.36 [-1.86, 0.42] -0.76 [-1.96, 0.42] -0.76 [-1.96, 0.42] -0.66 [-1.19, -0.13] -0.66 [-1.19, -0.13] -0.66 [-0.55, 0.43] -0.66 [-0.55, 0.43] -0.66 [-0.55, 0.43] -0.68 [-0.63, -0.53] -0.78 [-0.63, -0.53] -0.78 [-0.63, -0.53] -0.58 [-0.63, -0.53] -0.58 [-0.63, -0.53] -0.59 [-1.41, 0.22] -0.53 [-1.41, 0.22] -0.53 [-1.41, 0.22] -0.53 [-1.75, 0.61] -0.52 [-1.58, 1.04] -0.27 [-1.58, 1.04] -0.27 [-1.58, 1.04] -0.27 [-1.58, 1.04] -0.26 [-0.25, 0.28] -1.13 [-2.36, 0.11] -1.58 [-2.65, -0.51] -1.23 [-2.23, -0.23]	
Barabasz 1981 Growley 1986 Growley 1986 DrAlelio 1981 Decker 1981 Decker 1981 Decker 1987 Finger 1977 Finger 1977 Grbach 2007 Reiss 2017 Reiss 2017 Reiss 2017 Reiss 2017 Heterogeneily: Tau ² = Test for overall effect: 1.1.3 SST Altmaier 1981 Barabasz 1981 Decker 1981 McCordick 1981 McCordick 1981 Heterogeneily: Tau ² = Test for overall effect: 1.1.4 Combined Altmaier 1980 Heterogeneily: Tau ² = Test for overall effect: 1.1.4 Combined Altmaier 1981 Heterogeneily: Tau ² = Test for overall effect: 1.1.4 Combined Altmaier 1981 Lent 1978 Lent	$\begin{array}{c} 3,71\\ 46,91\\ 47,33\\ 48\\ 42,98\\ 18,33\\ 24,6\\ 56,88\\ 18,33\\ 24,6\\ 56,88\\ 56,89\\ 18,37\\ 28,44\\ 56,89\\ 16,28\\ 28,447\\ 10,12\\ 24,9\\ 25,54\\ 10,22\\ 10,22\\ 10,22\\ 22,1\\ $	$\begin{array}{c} 14.02\\ 9.84\\ 12.5\\ 9.8\\ 12.5\\ 9.9\\ 8.7\\ 8.85\\ 3.78\\ 3.78\\ 3.48\\ 3.919\\ 13.08\\ 10.52\\ 30.81\\ 13.08\\ 10.52\\ 30.81\\ 12.85\\ 9.88\\ 3.27\\ 5.57\\ 2.4\\ 17.91\\ P=6.98, (P=0.94)\\ 8.15\\ 6.9\\ 6.68\\ 4.14\\ 5.45\end{array}$	31 29 188 17 9 11 13 30 42 8 8 301 13 20 0 0001) 11 18 8 8 301 11 11 18 8 8 301 10 0001) 10 167 16 9 0 20 00 10 11 11 18 8 8 9 18 7 11 13 12 18 7 18 7 18 7 18 7 18 7 19 19 11 13 2 18 7 11 13 2 18 7 18 7 11 13 2 18 7 11 13 2 18 7 11 13 2 18 7 11 13 2 18 7 11 13 2 18 7 11 13 2 18 7 11 13 2 18 10 11 13 2 18 10 11 13 2 18 10 11 13 2 18 10 11 13 2 18 10 11 13 2 18 11 13 2 18 11 11 18 18 18 19 11 11 18 18 18 18 18 19 11 11 18 18 18 19 11 11 18 18 18 19 11 11 18 18 18 18 18 18 19 11 18 18 18 18 18 18 18 18 18 18 19 11 11 18 18 18 18 18 18 18 18 18 18 18	55.5 56.6 55.5 56.6 24.3 35.49 35.49 35.49 35.49 57.03 57.22 57.03 57.03 57.03 57.03 57.03 57.22 57.03 57.22 57.23 57.25	$\begin{array}{c} 12.94\\ 12.94\\ 12.94\\ 11.5\\ 8.2\\ 5.4\\ 6.05\\ 11.5\\ 8.2\\ 5.4\\ 6.05\\ 13.36\\ 13.36\\ 13.36\\ 13.36\\ 20.76\\ 0.14); l^{2}\\ 7.73\\ 3.22\\ 8.2\\ 9.428\\ 4.28\\ 7.25\\ 4.35\\ 1.6\\ 20.76\\ 4.; l^{2}=0\\ 7.73\\ 5.6\\ 5.6\\ 4.35\\ 4.35\\ 4.35\\ 4.35\\ 4.35\\ \end{array}$	13 14 14 10 10 4 4 4 5 228 24 24 24 24 24 24 24 24 24 24 24 5 5 5 5	1.4% 1.3% 1.2% 1.2% 1.0% 0.9% 1.0% 0.7% 1.6% 1.6% 1.6% 1.1% 1.3% 0.9% 1.6% 1.3% 0.8% 1.1% 1.2%	-0.69 [-1.35, -0.02] -0.73 [-1.39, -0.08] -0.73 [-1.39, -0.08] -0.76 [-1.48, 0.41] -0.36 [-1.48, 0.42] -0.36 [-1.86, 0.42] -0.76 [-1.96, 0.42] -0.76 [-1.96, 0.42] -0.66 [-1.19, -0.13] -0.66 [-1.19, -0.13] -0.66 [-0.55, 0.43] -0.66 [-0.55, 0.43] -0.66 [-0.55, 0.43] -0.68 [-0.63, -0.53] -0.78 [-0.63, -0.53] -0.78 [-0.63, -0.53] -0.58 [-0.63, -0.53] -0.58 [-0.63, -0.53] -0.59 [-1.41, 0.22] -0.53 [-1.41, 0.22] -0.53 [-1.41, 0.22] -0.53 [-1.75, 0.61] -0.52 [-1.58, 1.04] -0.27 [-1.58, 1.04] -0.27 [-1.58, 1.04] -0.27 [-1.58, 1.04] -0.26 [-0.25, 0.28] -1.13 [-2.36, 0.11] -1.58 [-2.65, -0.51] -1.23 [-2.23, -0.23]	
Barabasz 1981 Crowley 1986 Crowley 1986 Crowley 1986 Crowley 1987 Decker 1981 Decker 1981 Decker 1981 Finger 1977 Finger 1977 Orbach 2007 Reiss 2017 Reiss 2017 Reiss 2017 Reiss 2017 Reiss 2017 Heterogeneity: Tau ² = Test for overall effect: 1.1.3 SST Altmaier 1981 Barabasz 1981 Decker 1981 Heter 1980 McCordick 1981 Mitchell 1978 Heterowilly: Tau ² = Test for overall effect: 1.1.4 Combined Altmaier 1981 Lune 1980 McCordick 1981 Mitchell 1978 Heterowilly: Tau ² = Test for overall effect: 1.1.4 Combined Altmaier 1981 Lent 1978 McCordick 1981 McCordick 1981 McCo	$\begin{array}{c} 3.71\\ 45.91\\ 47.33\\ 48\\ 12.01\\ 28.84\\ 29.98\\ 18.36\\ 37.3.4\\ 656.3\\ 56.8$	$\begin{array}{c} 14.02\\ 9.84\\ 12.5\\ 9.9\\ 8.7\\ 8.85\\ 3.79\\ 8.85\\ 3.79\\ 8.85\\ 3.79\\ 8.85\\ 3.79\\ 13.08\\ 10.52\\ 30.81\\ 12.85\\ 9.88\\ 3.27\\ 5.57\\ 4.57\\ 2.7\\ 17.91\\ 17.91\\ 17.91\\ 17.91\\ 8.15\\ 6.9\\ 8.15\\ 6.9\\ 6.69\\ 6.69\\ 4.54\\ 14.44\\ 4.55\\ 1.5\end{array}$	31 29 18 8 17 9 11 13 12 8 8 30 42 8 30 1 30 1 30 1 18 8 8 30 1 30 1 18 8 8 20 10 00 11 11 18 8 8 20 20 10 10 11 11 18 8 8 9 20 10 11 11 10 12 12 10 11 12 12 10 11 12 12 10 11 12 12 10 11 12 12 10 11 12 12 10 11 12 12 10 11 12 12 10 11 12 12 10 11 12 12 10 10 11 12 12 10 10 11 12 12 10 10 11 12 12 10 10 11 12 12 10 10 11 12 12 10 10 11 12 12 10 10 11 12 12 10 10 11 12 12 10 10 11 12 12 10 10 11 11 12 12 10 10 11 11 12 12 10 10 11 11 12 12 10 10 11 11 12 12 10 10 11 11 12 12 10 10 11 11 12 12 10 10 11 11 11 12 12 10 10 11 11 11 12 12 10 10 11 11 18 18 18 10 10 10 10 10 10 11 11 11 18 18 18 10 10 10 10 10 10 10 10 10 10 10 10 10	55.5 56.6 55.5 56.6 24.3 35.49 35.49 35.49 57.03	$\begin{array}{c} 12.94\\ 12.94\\ 11.5\\ 8.2\\ 5.4\\ 6.06\\ 6.06\\ 11.3\\ 6.06\\ 13.36\\ 13.36\\ 13.36\\ 20.76\\ 0.14); ^{p}\\ 7.73\\ 3.2\\ 8.2\\ 9.9\\ 4.28\\ 5.6\\ 20.76\\ 4.36\\ 5.6\\ 20.76\\ 4.36\\ 5.6\\ 4.35\\ 5.6\\ 4.35$	$\begin{array}{c} 13\\ 13\\ 14\\ 10\\ 10\\ 4\\ 4\\ 4\\ 4\\ 5\\ 2\\ 2\\ 2\\ 4\\ 4\\ 4\\ 4\\ 6\\ 9\\ 9\\ 3\\ 3\\ 4\\ 4\\ 4\\ 6\\ 9\\ 9\\ 9\\ 9\\ 9\\ 9\\ 9\\ 9\\ 9\\ 9\\ 9\\ 9\\ 9\\$	1.4% 1.4% 1.3% 1.0% 1.0% 1.0% 1.0% 1.0% 1.6% 1.6% 1.6% 1.6% 1.6% 1.6% 1.1% 1.3% 0.9% 1.1% 1.1% 1.1% 1.1% 1.1% 0.9%	-0.69 [-1.35, -0.02] -0.73 [-1.39, -0.08] -0.73 [-1.39, -0.08] -0.76 [-1.48, 0.71] -0.36 [-1.48, 0.72] -0.76 [-1.95, 0.42] -1.26 [-2.44, -0.04] -0.80 [-1.80, 0.29] -0.66 [-0.55, 0.43] -0.66 [-0.55, 0.43] -0.66 [-0.55, 0.43] -0.68 [-0.63, -0.53] -0.68 [-0.63, -0.53] -0.58 [-0.63, -0.53] -0.58 [-0.63, -0.53] -0.58 [-0.63, -0.53] -0.58 [-1.41, 0.22] -0.55 [-1.45, 0.61] 0.52 [-0.25, 0.28] -0.52 [-0.25, 0.61] -0.52 [-0.25, 0.28] -0.52 [-0.25, 0.61] -0.52 [-0.25, 0.28] -0.58 [-1.46, 0.70] -0.52 [-0.25, 0.28] -1.13 [-2.36, 0.11] -1.58 [-2.66, -0.51] -1.23 [-2.28, 0.23] -0.43 [-1.96, 1.10] -1.24 [-2.26, 0.43] -1.20 [-2.26, 0.48] -1.20 [-2.26, 0.48] -1.20 [-2.26, 0.48] -1.20 [-2.26, 0.48] -1.20 [-2.26, 0.48] -1.20 [-2.26, 0.48]	
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Barabasz 1981 Growley 1985 Growley 1985 DrAlelio 1981 Decker 1981 Decker 1981 Decker 1981 Finger 1977 Holahan 1979 Meichenbaum 1972 Orbach 2007 Reiss 2017 Ricketts 1984 Substal (95% Cl) Heterogeneity: Tau ² = Test for overall effect: 1.1.3 SST Altmaier 1981 Barabasz 1981 Deckar 1981 McCordick 1981 McCordick 1981 Metcorgeneity: Tau ² = Test for overall effect: 1.1.4 Combined Altmaier 1980 McCordick 1981 Metcordick 1981 Heterogeneity: Tau ² = Test for overall effect: 1.1.4 Combined Altmaier 1981 Bent 1978 Lent 1978 Mitchell 1975 COMBINED Mitchell 1975 CD	$\begin{array}{c} 3.71\\ 45.91\\ 47.33\\ 4426\\ 88.4\\ 29.98\\ 11326\\ 856.8\\ 56.8\\ 56.8\\ 56.8\\ 56.8\\ 56.8\\ 57.3\\ 47.31\\ 57.4\\ 73.4\\ 0.068\\ Chin 2 = 4.47\\ 59.3\\ 18.1\\ 52.54\\ $	$\begin{array}{c} 14.02\\ 9.84\\ 9.84\\ 12.5\\ 9.84\\ 12.5\\ 9.87\\ 8.55\\ 8.54$	311 29 29 18 17 9 11 132 12 20 42 48 8 0 42 48 48 5 301 11 18 8 8 43 5 00000 11 11 18 8 9 200 20 16 7 9 11 11 18 2 40 8 9 20 9 10 11 10 12 12 12 12 12 12 12 12 12 12 12 12 12	55.5 55.5 56.6 55.5 56.6 55.5 56.6 55.4 56.3 35.49 23.08 35.49 23.08 67.03 67.03 67.03 67.03 67.03 67.03 23.02 24.33 24.33 24.33 22.63 26.3 2.22 32.2 32.2 32.2 32.2 32.43 26.33 0.22 32.2 30.22 32.2 30.22 32.2 32.43 26.33 0.22 32.2 32.63 0.22 32.2 32.2 32.2 32.2 32.2 32.2 32.2 32.2 32.2 32.2 32.2 32.2 32.2 32.2 32.2 32.2 32.2 32.2 32.2 32.2 <	$\begin{array}{c} 12.94\\ 11.2\\ 12.94\\ 11.5\\ 6.2\\ 8.2\\ 2.3\\ 1.3\\ 20.76\\ 0.14\\ 13.36\\ 20.76\\ 0.14\\ 13.36\\ 20.76\\ 0.14\\ 13.36\\ 20.76\\ 0.2\\ 0.14\\ 13.36\\ 20.76\\ 0.2\\ 0.2\\ 1.3\\ 0.2\\ 0.76\\ 0.2\\ 0.2\\ 0.2\\ 0.2\\ 0.2\\ 0.2\\ 0.2\\ 0.2$	13 13 14 10 10 14 4 4 4 4 5 2 28 24 4 4 4 5 5 2 2 2 2 8 24 4 9 9 5 3 4 4 6 5 5 2 4 4 6 15 5 2 4 4 6 15 5 2 4 4 4 9 9 5 3 4 4 6 15 15 10 10 10 10 10 10 10 10 10 10 10 10 10	1.4% 1.4% 1.3% 1.0% 0.9% 1.0% 0.7% 1.6% 1.6% 1.6% 1.6% 1.6% 1.6% 1.8% 1.9% 0.9% 1.1% 1.2% 0.9% 1.2% 1.2% 1.2% 1.2% 1.2% 0.9% 1.1% 1.2% 1.2% 1.2% 0.9% 0.9% 1.1% 1.2% 1.2% 1.2% 1.2% 1.2% 1.2% 1.2	-0.69 [-1.35, -0.02] -0.73 [-1.39, -0.08] -0.73 [-1.39, -0.08] -0.76 [-1.48, 0.71] -0.36 [-1.48, 0.72] -0.76 [-1.95, 0.42] -1.26 [-2.44, -0.04] -0.80 [-1.80, 0.29] -0.66 [-0.55, 0.43] -0.66 [-0.55, 0.43] -0.66 [-0.55, 0.43] -0.68 [-0.63, -0.53] -0.68 [-0.63, -0.53] -0.58 [-0.63, -0.53] -0.58 [-0.63, -0.53] -0.58 [-0.63, -0.53] -0.58 [-1.41, 0.22] -0.55 [-1.45, 0.61] 0.52 [-0.25, 0.28] -0.52 [-0.25, 0.61] -0.52 [-0.25, 0.28] -0.52 [-0.25, 0.61] -0.52 [-0.25, 0.28] -0.58 [-1.46, 0.70] -0.52 [-0.25, 0.28] -1.13 [-2.36, 0.11] -1.58 [-2.66, -0.51] -1.23 [-2.28, 0.23] -0.43 [-1.96, 1.10] -1.24 [-2.26, 0.43] -1.20 [-2.26, 0.48] -1.20 [-2.26, 0.48] -1.20 [-2.26, 0.48] -1.20 [-2.26, 0.48] -1.20 [-2.26, 0.48] -1.20 [-2.26, 0.48]	





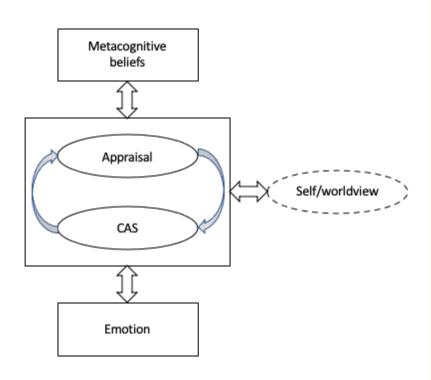
		Test anxiety	Academic performance		
Intervention	Post	Follow-up	State	Post	Follow-up
вт	-0.83	-1.15	-1.52	0.22	0.20
	(-1.06, -0.60)	(-1.38, -0.91)	(-2.06, -0.97)	(0.05, 0.40)	(-0.17, -0.56)
СВТ	-0.58	-0.31	-	-0.24	0.54
	(-0.83, -0.33)	(-0.64, 0.02)		(-0.98, 0.49)	(-0.41, 1.50)
SST	0.02	-0.95	-0.73	0.34	-
	(-0.25, 0.28)	(-2.24, 0.34)	(-2.57, 1.12)	(-0.16, 0.84)	
Combined	-1.38	-	-0.85	1.58	-
	(-1.96, -0.81)		(-1.77, 0.08)	(0.41, 2.76)	
Overall	-0.76	-0.87	-1.20	0.37	0.23
	(-0.93, -0.58)	(-1.06, -0.68)	(-1.66, -0.75)	(0.14, 0.61)	(-0.11, 0.56)

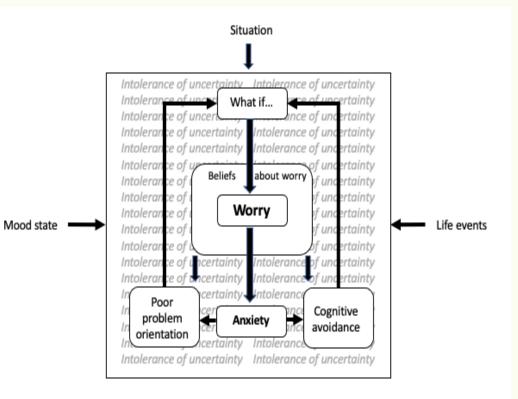
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UNIVERSITY OF LIVERPOOL **Developing new interventions**

Self-Regulatory Executive Function (S-REF) model

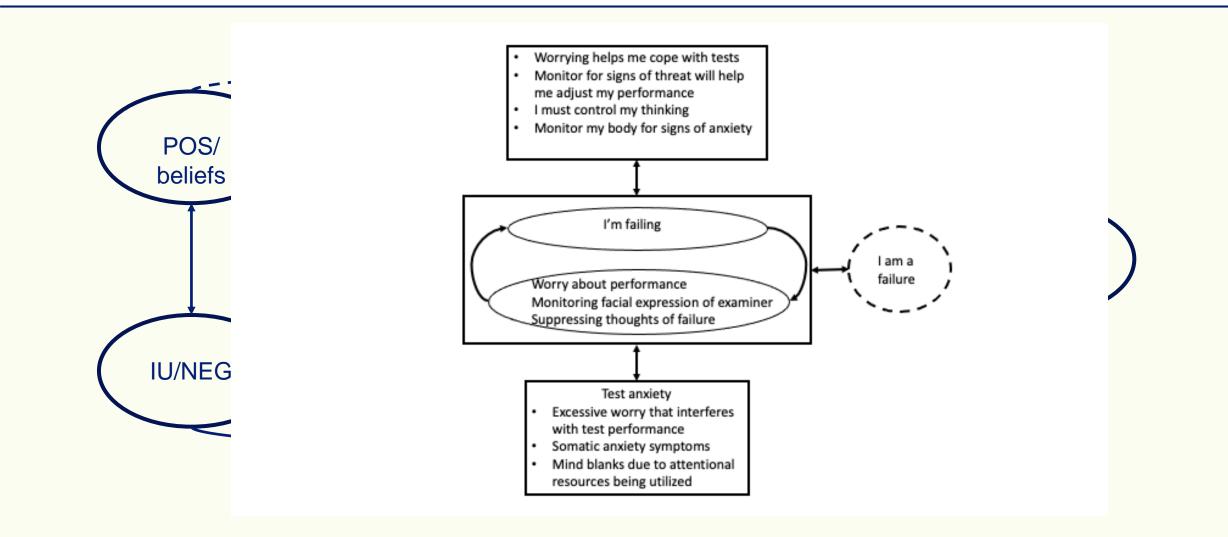
Intolerance of Uncertainty (IU) model





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UNIVERSITY OF LIVERPOOL **Future research**



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VINIVERSITY OF LIVERPOOL Validity of assessment scales

Current Psychology https://doi.org/10.1007/s12144-020-00662-y

Assessing metacognitive beliefs in test anxiety: Psychometric properties of the metacognitions questionnaire, 30 (MCQ-30) among university students

Christopher D. Huntley¹ · Bridget Young² · Catrin Tudur Smith³ · Vikram Jha⁴ · Peter L. Fisher²

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Abstract

The Metacognitions Questionnaire-30 (MCQ-30) measures maladaptive metacognitive beliefs considered central to the metacognitive model of psychopathology. However, the psychometric properties of the MCQ-30 in test anxiety (TA) among university students are unknown. This study examined the MCQ-30 factor structure and concurrent validity in both trait and state TA. Confirmatory and exploratory factor analyses support the previously established five-factor structure of the MCQ-30 in both state and trait TA, with factors having good internal consistency. Structural equation modeling of the relationships between MCQ-30 subscales and TA found 'Negative beliefs about uncontrollability and danger of worry' to have the strongest association. The MCQ-30 appears a robust measure of metacognitive beliefs in TA and provides a basis for further testing of the validity of the metacognitive model in TA. Extending the reach of metacognitive therapy, which is based upon the metacognitive model, to TA could help to improve both student wellbeing and academic performance.

Keywords Metacognition \cdot Test anxiety \cdot MCQ-30 \cdot Validity \cdot Factor structure

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Uncertainty and test anxiety: Psychometric properties of the Intolerance of Uncertainty Scale – 12 (IUS-12) among university students

Christopher D. Huntley *, Bridget Young, Catrin Tudur Smith, Peter L. Fisher

ABSTRACT

University of Liverpool, UK

ARTICLE INFO

Keywords: Test anxiety Intolerance of uncertainty IUS-12 University Students Psychometric Bifactor model ode Test anxiety is common among university students and more effective interventions are needed. The Intolerance of Uncertainty (IU) model underpins an effective intervention for anxiety. IU is the propensity to react negatively to uncertainty. The Intolerance of Uncertainty Scale – 12 (IUS-12) is the most common scale for measuring IU. This study examined for the first time the factor structure of the IUS-12 in UK samples, and explored the relationship between IU and trait and state test anxiety. Factor analyses supported a bifactor model with a robust and reliable general IU factor, which was replicated across two samples. IU was strongly associated with both trait and state test anxiety.



Do IU & metacognitive beliefs TA?

Cross-sectional (n = 668)

Variable	β	p
Gender	16	< .001
IUS-12	.18	< .001
MCQ-30-POS	.01	.773
MCQ-30-NEG	.42	< .001
MCQ-30-CC	.15	< .001
MCQ-30-NC	05	.255
MCQ-30-CSC	02	.526

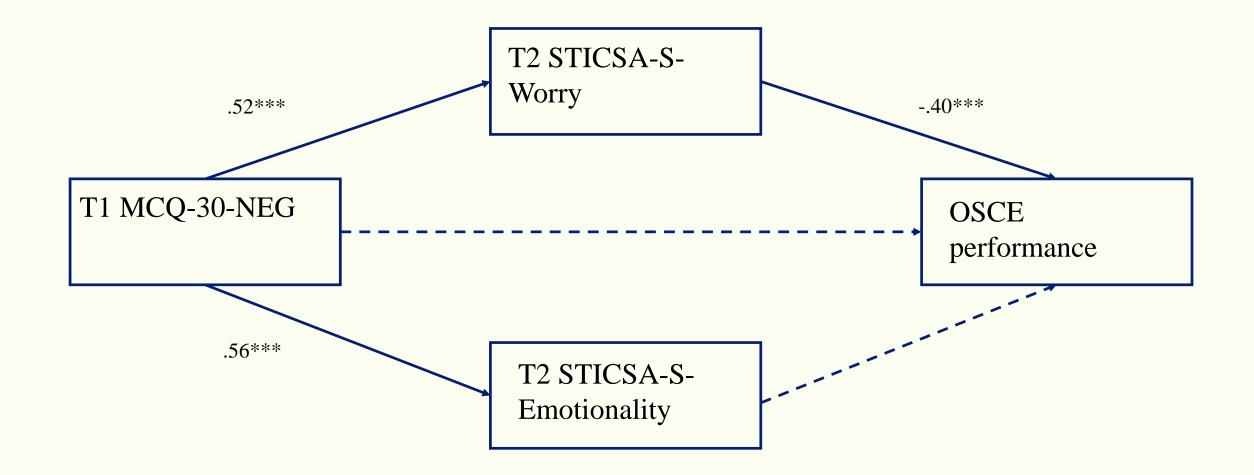
Prospective (n = 134)

Variable	β	p
Gender	07	.438
T1 IUS-12	.14	.154
T1 MCQ-30-POS	02	.791
T1 MCQ-30-NEG	.61	< .001
T1 MCQ-30-CC	.03	.669
T1 MCQ-30-NC	15	.150
T1 MCQ-30-CSC	.02	.780

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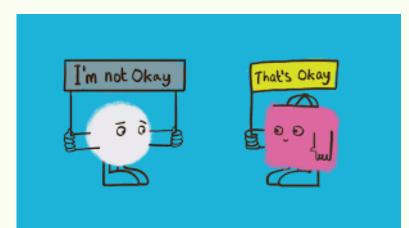
UNIVERSITY OF LIVERPOOL **TA&OSCE** performance





UNIVERSITY OF LIVERPOOL **Identification of TA students**

- Self-referrals
- Academic advisors
- Failing exam
- Anything else?



• Should we screen?



UNIVERSITY OF LIVERPOOL **Prevent TA/improve performance**

- Framing of exams
- Study skills training
- Raising awareness
- One-stop shop for resources
- Self-help (e.g., muscle relaxation or breathing protocol)



• Anything else...?

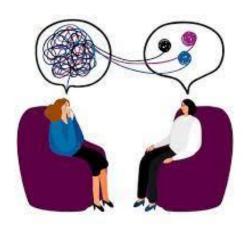




LIVERPOOL Interventions

- TAU
- Current best evidence for BTs
- Advantage of BTs easy to deliver by staff, easy to remember and practice by students
- Medium-to-longer term...
- New intervention based on S-REF
- 'Universal' online?
- F2F?





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Thank you.

Any questions?



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