

Appendix 10: Results of fitted models

OUTCOME: Pain				Random effect standard deviations and correlations							
	Week definition	Number of studies	Number of observations	Range of observed weeks	FP powers	Study (constant)	Week1	Week2	Study, Week1	Study, Week2	Week1, Week2
<i>Primary analyses</i>											
Acute	Uncorrected	31	103	0 to 52	-1 -1	10.07786	13.94761	13.94761	NE	NE	NE
Pooled pain score = 20.37667 + 35.17273 * (Week + 1) ⁽⁻¹⁾ + 1.927829 * (Week + 1) ⁽⁻¹⁾ * ln (Week + 1)											
Subacute	Uncorrected	10	27	0 to 52	-0.5 -0.5	22.21845	12.04136	12.04136	-0.91737	-0.86213	0.58921
Pooled pain score = 46.18799 + 16.813208 * (Week + 1) ^(-0.5) - 31.52878 * (Week + 1) ^(-0.5) * ln (Week + 1)											
Persistent	Uncorrected	3	7	0 to 52	0	16.35877	1.127073	NE	-1	NE	NE
Pooled pain score = 55.61477 - 3.85617 * ln (Week + 1)											
Acute	Inception corrected	25	84	0.15 to 57.3	-1 -1	13.47481	72.20967	49.67608	NE	NE	NE
Pooled pain score = 20.38864 + 116.56659 * (Week + 1) ⁽⁻¹⁾ - 28.94434 * (Week + 1) ⁽⁻¹⁾ * ln (Week + 1)											
Subacute	Inception corrected	7	18	6 to 59.4	-2 -2	10.20384	436.5065	343.3817	NE	NE	NE
Pooled pain score = 36.01506 + 6829.3788 * (Week) ⁽⁻²⁾ - 2895.1184 (Week) ⁽⁻²⁾ * ln (Week)											
Persistent	Inception corrected	3	7	12.9 to 79.7	0	34.30757	5.728624	NE	NE	NE	NE
Pooled pain score = 93.95325 - 12.72855 * ln (Week + 1)											

Sensitivity Analysis 1: Studies with participants excluding leg pain/sciatica

Acute	Uncorrected	12	34	0 to 52	-2 -2	9.887039	12.99734	172.532	NE	NE	NE
Pooled pain score = $20.41124 + 36.11315 * (\text{Week} + 1)^{(-2)} + 26.64243 * (\text{Week} + 1)^{(-2)} * \ln(\text{Week} + 1)$											
Subacute	Uncorrected	3	9	0 to 54	0 -0.5	4.019173	4.840804	6.814654	1	-1	-1
Pooled pain score = $27.79144 - 51.15997 * \ln(\text{Week} + 1) + 32.76466 * (\text{Week} + 1)^{(-0.5)}$											
Persistent	Uncorrected	2	5	0 to 52	NE	NE	NE	NE	NE	NE	NE
Model not fitted due to sample size											
Acute	Inception corrected	11	32	0.15 to 52.7	-1 1	25.71545	72.94368	0.39809	NE	NE	NE
Pooled pain score = $1.646697 + 114.512 * (\text{Week} + 1)^{(-1)} + 0.05852 * (\text{Week} + 1)$											
Subacute	Inception corrected	3	9	6 to 59.4	-2 -2	11.37849	NE	NE	NE	NE	NE
Pooled pain score = $31.70568 + 10658.71 * (\text{Week} + 1)^{(-2)} - 4568.235 * (\text{Week} + 1)^{(-2)} * \ln(\text{Week} + 1)$											
Persistent	Inception corrected	2	5	12.9 to 79.7	NE	NE	NE	NE	NE	NE	NE
Model not fitted due to sample size											
Sensitivity Analysis 2: studies with participants aged 18 – 60 years old											
Acute	Uncorrected	6	25	0 to 52	-2 -2	5.499122	13.59919	226.6439	NE	NE	NE
Pooled pain score = $20.74173 + 29.11448 * (\text{Week} + 1)^{(-2)} + 55.71544 * (\text{Week} + 1)^{(-2)} * \ln(\text{Week} + 1)$											
Subacute	Uncorrected	3	10	0 to 52	-0.5 -0.5	63.9193	45.94143	98.14196	-0.99684	-0.98146	0.96313

		Pooled pain score = $60.42315 + 6.235144 * (\text{Week} + 1)^{(-0.5)} - 65.42005 * (\text{Week} + 1)^{(-0.5)} * \ln(\text{Week} + 1)$									
Persistent	Uncorrected	Model not fitted due to no observations									
Acute	Inception			0.7 to							
	corrected	5	20	57.2	-2 -1	6.278824	376.8231	122.7733	NE	NE	NE
		Pooled pain score = $18.18318 + 120.2515 * (\text{Week} + 1)^{(-2)} + 43.01462 * (\text{Week} + 1)^{(-1)}$									
Subacute	Inception			6.1 to							
	corrected	3	10	59.1	-2 -2	7.947413	.0000186	672.1803	NE	NE	NE
		Pooled pain score = $32.08345 + 12594.86 * (\text{Week} + 1)^{(-2)} - 5032.234 * (\text{Week} + 1)^{(-2)} * \ln(\text{Weeks} + 1)$									
	Inception										
Persistent	corrected	Model not fitted due to no observations									

FP – fractional polynomial; ln – natural logarithm (base e); NE – not estimated as 1) not required for lowest BIC model or 2) would not converge.

OUTCOME: Disability				Random effect standard deviations and correlations							
	Week definition	Number of studies	Number of observations	Range of observed weeks	FP powers	Study (constant)	Week1	Week2	Study, Week1	Study, Week2	Week1, Week2
Primary analyses											
Acute ¹	Uncorrected	30	96	0 to 52	-2 -2	8.666543	13.33512	128.1133	NE	NE	NE
		Pooled disability score = 17.1712 + 26.1946 * (Week + 1) ⁽⁻²⁾ + 118.6091 * (Week + 1) ⁽⁻²⁾ * ln (Week + 1)									
		9									
Subacute	Uncorrected		24	0 to 52	-2 -2	12.51626	8.293791	9.92e-08	NE	NE	NE
		Pooled disability score = 24.46105 + 19.46542 * (Week + 1) ⁽⁻²⁾ + 107.7813 * (Week + 1) ⁽⁻²⁾ * ln (Week + 1)									
Persistent ¹	Uncorrected	4	8	0 to 52	0	23.6969	0.515904	NE	NE	NE	NE
		Pooled disability score = 57.47356 + 0.4561952 * ln (Week + 1)									
Acute	Inception corrected	25	77	0.15 to 57.3	-0.5 - 0.5	6.523719	38.67786	23.00523	NE	NE	NE
		Pooled disability score = 26.50534 + 70.60417 * (Week + 1) ^(-0.5) - 39.60865 * (Week + 1) ^(-0.5) * ln (Week + 1)									
		6									
Subacute	Inception corrected		15	6.1 to 59.4	-2 -0.5	12.36358	216.0477	31.61317	NE	NE	NE
		Pooled disability score = 16.79713 + 444.26881 * (Week) ⁽⁻²⁾ + 52.05195 * (Week) ^(-0.5)									
		6									
Persistent	Inception corrected	3	7	12.9 to 79.7	0	53.30313	8.503521	NE	NE	NE	NE
		Pooled disability score = 100.8367 - 15.9655 * ln (Week + 1)									
		3									
Sensitivity Analysis 1: Studies with participants excluding leg pain/sciatica											
Acute	Uncorrected	11	32	0 to 52	-2 -2	3.584278	10.94346	103.7918	NE	NE	NE

		Pooled disability score = $12.42407 + 31.4524 * (\text{Week} + 1)^{(-2)} + 50.8484 * (\text{Week} + 1)^{(-2)} * \ln(\text{Week} + 1)$									
Subacute	Uncorrected	3	8	0 to 52	-2 -0.5	15.31629	NE	NE	NE	NE	NE
		Pooled disability score = $15.30678 - 21.92224 * (\text{Week} + 1)^{(-2)} + 53.66844 * (\text{Week} + 1)^{(-0.5)}$									
Persistent	Uncorrected	2	5	0 to 52							
		Model not fitted due to small number of studies									
Acute	Inception corrected	10	28	0.15 to 52.7	-2 -2	4.765257	9.20263	155.9492	NE	NE	NE
		Pooled disability score = $10.77144 + 60.16282 * (\text{Week} + 1)^{(-2)} + 150.586 * (\text{Week} + 1)^{(-2)} * \ln(\text{Week} + 1)$									
Subacute	Inception corrected	3	8	6.1 to 59.4	-2 3	17.39321	NE	NE	NE	NE	NE
		Pooled disability score = $30.02852 + 1007.462 * (\text{Week} + 1)^{(-2)} - 0.0000538 * (\text{Week} + 1)^{(3)}$									
Persistent	Inception corrected	2	5	12.9 to 79.7							
		Model not fitted due to small number of studies									
Sensitivity Analysis 2: studies with participants aged 18 – 60 years old											
Acute	Uncorrected	6	22	0 to 52	-2 0.5	1.443772	4.30292	0.71037	0.96533	0.42053	0.16912
		Pooled disability score = $13.64462 + 22.08746 * (\text{Week} + 1)^{(-2)} + 0.1022855 * (\text{Week} + 1)^{(-0.5)}$									
Subacute	Uncorrected	2	7	0 to 44							
		Model not fitted due to small number of studies									
Persistent	Uncorrected	Model not fitted due to no observations									
Acute	Inception corrected	4	13	1.16 to 57.3	-2 -2	7.648353	0.00047	122.9219	NE	NE	NE

		Pooled disability score = $14.33847 + 122.4142 * (\text{Week} + 1)^{(-2)} + 157.2816 * (\text{Week} + 1)^{(-2)} * \ln(\text{Week} + 1)$		
Subacute	Inception corrected	2	7	8 to 52
		Model not fitted due to small number of studies		
Persistent	Inception corrected	Model not fitted due to no observations		

¹1 data point excluded because > 60 weeks.

FP – fractional polynomial; ln – natural logarithm (base e); NE – not estimated as 1) not required for lowest BIC model or 2) would not converge.