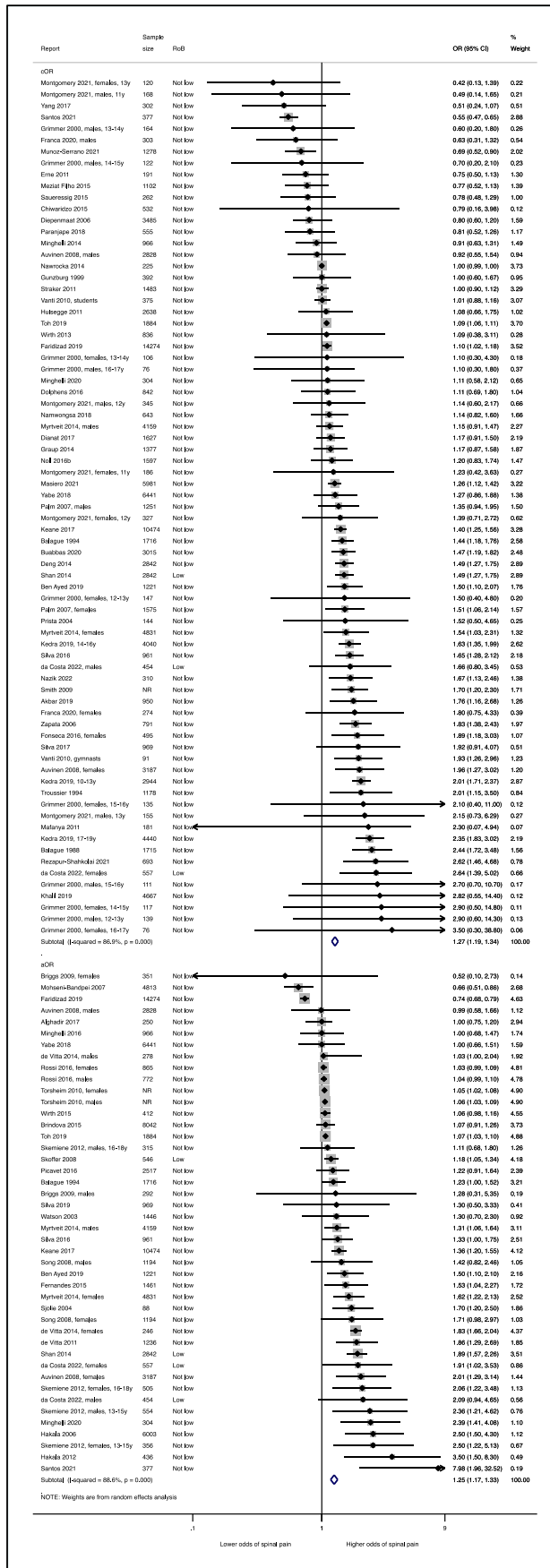**APPENDIX 1 (of 2)**

TITLE

Does sedentary behaviour cause spinal pain in children and adolescents? A systematic review with meta-analysis
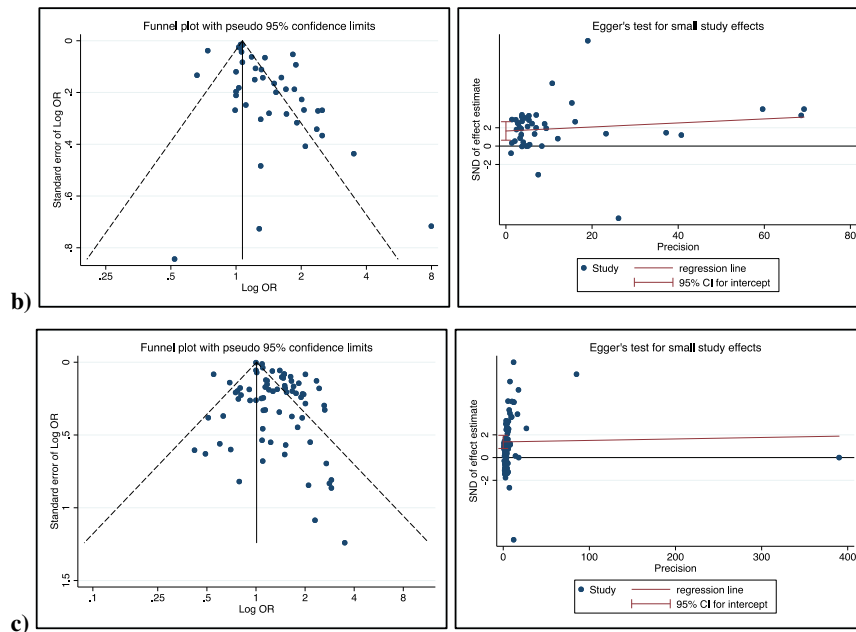
AUTHORS

Laura RC Montgomery, Michael S Swain, Amabile Borges Dario, Mary O'Keeffe, Tie P Yamato, Jan Hartvigsen, Simon D French, Christopher M Williams, Steven J Kamper
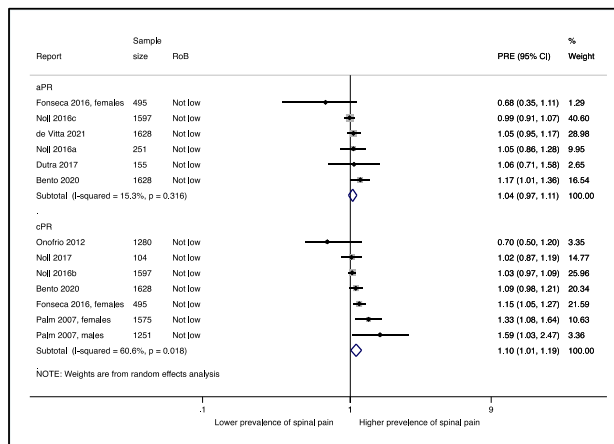
Report	Sample size	RoB	OR (95% CI)	% Weight
cOR				
Montgomery 2021, females, 13y	120	Not low	0.42 (0.13, 1.39)	0.22
Montgomery 2021, males, 11y	168	Not low	0.49 (0.14, 1.65)	0.21
Yang 2017	302	Not low	0.51 (0.24, 1.07)	0.51
Santos 2021	377	Not low	0.55 (0.47, 0.65)	2.88
Grimmer 2000, males, 13-14y	164	Not low	0.60 (0.20, 1.80)	0.26
Franca 2020, males	303	Not low	0.63 (0.31, 1.32)	0.54
Munoz-Serrano 2021	1278	Not low	0.69 (0.52, 0.90)	2.02
Grimmer 2000, males, 14-15y	122	Not low	0.70 (0.20, 2.10)	0.23
Erne 2011	191	Not low	0.75 (0.50, 1.13)	1.30
Meziat Filho 2015	1102	Not low	0.77 (0.52, 1.13)	1.39
Saueressig 2015	262	Not low	0.78 (0.48, 1.29)	1.00
Chiwaridzo 2015	532	Not low	0.79 (0.16, 3.98)	0.12
Diepenmaat 2006	3485	Not low	0.80 (0.60, 1.20)	1.59
Paranjape 2018	555	Not low	0.81 (0.52, 1.26)	1.17
Minghelli 2014	966	Not low	0.91 (0.63, 1.31)	1.49
Auvinen 2008, males	2828	Not low	0.92 (0.55, 1.54)	0.94
Nawrocka 2014	225	Not low	1.00 (0.99, 1.00)	3.73
Gunzburg 1999	392	Not low	1.00 (0.60, 1.67)	0.95
Straker 2011	1483	Not low	1.00 (0.90, 1.12)	3.29
Vanti 2010, students	375	Not low	1.01 (0.88, 1.16)	3.07
Hulsegge 2011	2638	Not low	1.08 (0.66, 1.75)	1.02
Toh 2019	1884	Not low	1.09 (1.06, 1.11)	3.70
Wirth 2013	836	Not low	1.09 (0.38, 3.11)	0.28
Faridizad 2019	14274	Not low	1.10 (1.02, 1.18)	3.52
Grimmer 2000, females, 13-14y	106	Not low	1.10 (0.30, 4.30)	0.18
Grimmer 2000, males, 16-17y	76	Not low	1.10 (0.30, 1.80)	0.37
Minghelli 2020	304	Not low	1.11 (0.58, 2.12)	0.65
Dolphens 2016	842	Not low	1.11 (0.69, 1.80)	1.04
Montgomery 2021, males, 12y	345	Not low	1.14 (0.60, 2.17)	0.66
Namwongsa 2018	643	Not low	1.14 (0.82, 1.60)	1.66
Myrtveit 2014, males	4159	Not low	1.15 (0.91, 1.47)	2.27
Dianat 2017	1627	Not low	1.17 (0.91, 1.50)	2.19
Graup 2014	1377	Not low	1.17 (0.87, 1.58)	1.87
Noll 2016b	1597	Not low	1.20 (0.83, 1.74)	1.47
Montgomery 2021, females, 11y	186	Not low	1.23 (0.42, 3.63)	0.27
Masiero 2021	5981	Not low	1.26 (1.12, 1.42)	3.22
Yabe 2018	6441	Not low	1.27 (0.86, 1.88)	1.38
Palm 2007, males	1251	Not low	1.35 (0.94, 1.95)	1.50
Montgomery 2021, females, 12y	327	Not low	1.39 (0.71, 2.72)	0.62
Keane 2017	10474	Not low	1.40 (1.25, 1.56)	3.28
Balague 1994	1716	Not low	1.44 (1.18, 1.76)	2.58
Buabbas 2020	3015	Not low	1.47 (1.19, 1.82)	2.48
Deng 2014	2842	Not low	1.49 (1.27, 1.75)	2.89
Shan 2014	2842	Low	1.49 (1.27, 1.75)	2.89
Ben Ayed 2019	1221	Not low	1.50 (1.10, 2.07)	1.76
Grimmer 2000, females, 12-13y	147	Not low	1.50 (0.40, 4.80)	0.20
Palm 2007, females	1575	Not low	1.51 (1.06, 2.14)	1.57
Prista 2004	144	Not low	1.52 (0.50, 4.65)	0.25
Myrtveit 2014, females	4831	Not low	1.54 (1.03, 2.31)	1.32
Kedra 2019, 14-16y	4040	Not low	1.63 (1.35, 1.99)	2.62
Silva 2016	961	Not low	1.65 (1.28, 2.12)	2.18
da Costa 2022, males	454	Low	1.66 (0.80, 3.45)	0.53
Nazik 2022	310	Not low	1.67 (1.13, 2.46)	1.38
Smith 2009	NR	Not low	1.70 (1.20, 2.30)	1.71
Akbar 2019	950	Not low	1.76 (1.16, 2.68)	1.26
Franca 2020, females	274	Not low	1.80 (0.75, 4.33)	0.39
Zapata 2006	791	Not low	1.83 (1.38, 2.43)	1.97
Fonseca 2016, females	495	Not low	1.89 (1.18, 3.03)	1.07
Silva 2017	969	Not low	1.92 (0.91, 4.07)	0.51
Vanti 2010, gymnasts	91	Not low	1.93 (1.26, 2.96)	1.23
Auvinen 2008, females	3187	Not low	1.96 (1.27, 3.02)	1.20
Kedra 2019, 10-13y	2944	Not low	2.01 (1.71, 2.37)	2.87
Troussier 1994	1178	Not low	2.01 (1.15, 3.50)	0.84
Grimmer 2000, females, 15-16y	135	Not low	2.10 (0.40, 11.00)	0.12
Montgomery 2021, males, 13y	155	Not low	2.15 (0.73, 6.29)	0.27
Matanya 2011	181	Not low	2.30 (0.07, 4.94)	0.07
Kedra 2019, 17-19y	4440	Not low	2.35 (1.83, 3.02)	2.19
Balague 1988	1715	Not low	2.44 (1.72, 3.48)	1.56
Rezapour-Shahkolai 2021	693	Not low	2.62 (1.46, 4.68)	0.78
da Costa 2022, females	557	Low	2.64 (1.39, 5.02)	0.66
Grimmer 2000, males, 15-16y	111	Not low	2.70 (0.70, 10.70)	0.17
Khalil 2019	4667	Not low	2.82 (0.55, 14.40)	0.12
Grimmer 2000, females, 14-15y	117	Not low	2.90 (0.50, 14.80)	0.11
Grimmer 2000, males, 12-13y	139	Not low	2.90 (0.60, 14.30)	0.13
Grimmer 2000, females, 16-17y	76	Not low	3.50 (0.30, 36.80)	0.06
Subtotal (I-squared = 86.9%, p = 0.000)			1.27 (1.19, 1.34)	100.00
aOR				
Briggs 2009, females	351	Not low	0.52 (0.10, 2.73)	0.14
Mohseni-Bandpei 2007	4813	Not low	0.66 (0.51, 0.86)	2.68
Faridizad 2019	14274	Not low	0.74 (0.68, 0.79)	4.63
Auvinen 2008, males	2828	Not low	0.99 (0.58, 1.66)	1.12
Alghadir 2017	250	Not low	1.00 (0.75, 1.20)	2.94
Minghelli 2016	966	Not low	1.00 (0.68, 1.47)	1.74
Yabe 2018	6441	Not low	1.00 (0.66, 1.51)	1.59
de Vitta 2014, males	278	Not low	1.03 (1.00, 2.04)	1.92
Rossi 2016, females	865	Not low	1.03 (0.99, 1.09)	4.81
Rossi 2016, males	772	Not low	1.04 (0.99, 1.10)	4.78
Torsheim 2010, females	NR	Not low	1.05 (1.02, 1.08)	4.90
Torsheim 2010, males	NR	Not low	1.06 (1.03, 1.09)	4.90
Wirth 2015	412	Not low	1.06 (0.98, 1.16)	4.55
Brindova 2015	8042	Not low	1.07 (0.91, 1.26)	3.73
Toh 2019	1884	Not low	1.07 (1.03, 1.10)	4.88
Skemiene 2012, males, 16-18y	315	Not low	1.11 (0.68, 1.80)	1.26
Skoffer 2008	546	Low	1.18 (1.05, 1.34)	4.18
Picavet 2016	2517	Not low	1.22 (0.91, 1.64)	2.39
Balague 1994	1716	Not low	1.23 (1.00, 1.52)	3.21
Briggs 2009, males	292	Not low	1.28 (0.31, 5.35)	0.19
Silva 2019	969	Not low	1.30 (0.50, 3.33)	0.41
Watson 2003	1446	Not low	1.30 (0.70, 2.30)	0.92
Myrtveit 2014, males	4159	Not low	1.31 (1.05, 1.64)	3.11
Silva 2016	961	Not low	1.33 (1.00, 1.75)	2.51
Keane 2017	10474	Not low	1.36 (1.20, 1.55)	4.12
Song 2008, males	1194	Not low	1.42 (0.82, 2.46)	1.05
Ben Ayed 2019	1221	Not low	1.50 (1.10, 2.16)	2.16
Fernandes 2015	1461	Not low	1.53 (1.04, 2.27)	1.72
Myrtveit 2014, females	4831	Not low	1.62 (1.22, 2.13)	2.52
Sjolie 2004	88	Not low	1.70 (1.20, 2.50)	1.86
Song 2008, females	1194	Not low	1.71 (0.98, 2.97)	1.03
de Vitta 2014, females	246	Not low	1.83 (1.66, 2.04)	4.37
de Vitta 2011	1236	Not low	1.86 (1.29, 2.69)	1.85
Shan 2014	2842	Low	1.89 (1.57, 2.26)	3.51
da Costa 2022, females	557	Low	1.91 (1.02, 3.53)	0.86
Auvinen 2008, females	3187	Not low	2.01 (1.29, 3.14)	1.44
Skemiene 2012, males, 16-18y	505	Not low	2.06 (1.22, 3.48)	1.13
da Costa 2022, males	454	Low	2.09 (0.94, 4.65)	0.56
Skemiene 2012, males, 13-15y	554	Not low	2.36 (1.21, 4.62)	0.76
Minghelli 2020	304	Not low	2.39 (1.41, 4.08)	1.10
Hakala 2006	6003	Not low	2.50 (1.50, 4.30)	1.12
Skemiene 2012, females, 13-15y	356	Not low	2.50 (1.22, 5.13)	0.67
Hakala 2012	436	Not low	3.50 (1.50, 8.30)	0.49
Santos 2021	377	Not low	7.98 (1.96, 32.52)	0.19
Subtotal (I-squared = 88.6%, p = 0.000)			1.25 (1.17, 1.33)	100.00

NOTE: Weights are from random effects analysis

.1   1   9

Lower odds of spinal pain   Higher odds of spinal pain

a)

Appendix 1 Figure 1 a) Pooled adjusted and unadjusted odds ratios (aOR and cOR) estimating the association between sedentary behaviour and spinal pain (review objective 1) **b)** aOR Funnel plot and Egger's test **c)** cOR Funnel plot and Egger's test

Appendix 1 Figure 2 Pooled adjusted and unadjusted prevalence ratios (aPR and cPR) estimating the association between sedentary behaviour and spinal pain (review objective 1)

1 **Appendix 1 Table 1** Summary of cross-sectional reports estimating the association between sedentary behaviour and spinal pain (review objective 1)

Report	Sample *Country, setting*	Baseline *n=(%F), age range (mean±SD)*	Sedentary behaviour *Exposure vs. reference*	Spinal pain *Outcome vs. reference*	Unadjusted estimate *effect(95%CI)*	Adjusted estimate *effect(95%CI)*	Potential confounders included in analysis
Akbar 2019	Kuwait, School students	n=958(F43.6%), 14-19y (16.7±1.0)	Homework &/or reading: >6h/d v. <2h/d	LBP, in last 6mths v. No LBP, in last 6mths	OR 1.43(0.78 - 2.62)	-	-
			Homework &/or reading: 3-5h/d v. <2h/d		OR 1.09(0.79 - 1.48)	-	-
			iPad &/or gaming: >6h/d v. <2h/d		OR 0.99(0.66 - 1.49)	-	-
			iPad &/or gaming: 3-5h/d v. <2h/d		OR 1.21(0.88 - 1.66)	-	-
			TV &/or computer : >6h/d v. <2h/d		**OR 1.76(1.16 - 2.68)**	-	-
			TV &/or computer : 3-5h/d v. <2h/d		OR 1.33(0.97 - 1.82)	-	-
Akturk 2019	Turkey, School students	n=467(F50.4%), NRy (16.1±0.9)	Sitting: h/d v. NA, continuous variable	Back pain, in last 12m v. No back pain, in last 12m	**p-value, p=0.009**	-	-
Alberola Lopez 2010	Spain, School students (city)	n=322(F49.7%), 11-14y (NR±NR)	TV and videogame: 0,1,2,3,4, >5 h/d v. NA, continuous variable	NR v. NR	p-value, p=0.100	-	-
Alghadir 2017	Egypt, School students	n=300(F59.6%), 12-16y (NR±NR)	passive transport to school (car, bus, motorbike): time/day v. Unclear	LBP v. No LBP	-	OR 1.30(0.78 - 1.36)	Individual (Age, Gender)
			Sedentary activity: <240m/d v. Unclear		-	OR 1.30(0.88 - 1.45)	(as above)
			Sedentary activity: >240m/d v. Unclear		-	OR 1.00(0.75 - 1.20)	(as above)
Auvinen 2007[i]	Finland, Birth cohort, Northern Finland Birth Cohort 1986 (follow-up data 2001-2002)	n=9215(F53.2%), 15-16y (NR±NR)	Computer: >2h/d v. <1h/d	NOP, females "consultation for pain" (seeking medical help for pain) v. No NOP	-	OR 1.10(0.38 - 3.15)	Individual (Smoking, BMI, PA level)
				NOP, females "reporting pain" (reporting pain but not seeking medical help) v. No NOP	-	OR 1.27(0.83 - 1.96)	(as above)
				NOP, males "reporting NOP" and "consultation for pain" combined v. No NOP	-	**OR 1.29(1.01 - 1.65)**	(as above)
			Computer: 1-1.9h/d v. <1h/d	NOP, females "consultation for pain" (seeking medical help for pain) v. No NOP	-	OR 0.88(0.60 - 1.28)	(as above)
				NOP, females "reporting pain" (reporting pain but not seeking medical help) v. No NOP	-	OR 1.06(0.91 - 1.23)	(as above)
				NOP, males "reporting NOP" and "consultation for pain" combined v. No NOP	-	OR 1.17(0.95 - 1.45)	(as above)
			Other (Not TV, Computer or Reading): >2h/d v. <1h/d	NOP, females "consultation for pain" (seeking medical help for pain) v. No NOP	-	OR 1.41(0.82 - 2.44)	(as above)
				NOP, females "reporting pain" (reporting pain but not seeking medical help) v. No NOP	-	**OR 1.36(1.10 - 1.69)**	(as above)
				NOP, males "reporting NOP" and "consultation for pain" combined v. No NOP	-	**OR 1.58(1.24 - 2.02)**	(as above)
			Other (Not TV, Computer or Reading): 1-1.9h/d v. <1h/d	NOP, females "consultation for pain" (seeking medical help for pain) v. No NOP	-	OR 1.24(0.77 - 2.00)	(as above)
				NOP, females "reporting pain" (reporting pain but not seeking medical help) v. No NOP	-	OR 1.07(0.89 - 1.29)	(as above)
				NOP, males "reporting NOP" and "consultation for pain" combined v. No NOP	-	**OR 1.31(1.09 - 1.58)**	(as above)
			Reading books or mags: >2h/d v. <1h/d	NOP, females "consultation for pain" (seeking medical help for pain) v. No NOP	-	**OR 2.08(1.03 - 4.17)**	(as above)
				NOP, females "reporting pain" (reporting pain but not seeking medical help) v. No NOP	-	**OR 1.36(1.02 - 1.80)**	(as above)
				NOP, males "reporting NOP" and "consultation for pain" combined v. No NOP	-	OR 1.16(0.80 - 1.70)	(as above)

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Study	Setting/cohort	n (sex), age	Exposure	Outcome	OR	OR	Adjustment
			Reading books or mags: 1-1.9h/d v. <1h/d	NOP, females "consultation for pain" (seeking medical help for pain) v. No NOP	-	OR 1.61(0.99 - 2.63)	(as above)
				NOP, females "reporting pain" (reporting pain but not seeking medical help) v. No NOP	-	OR 1.10(0.92 - 1.30)	(as above)
				NOP, males "reporting NOP" and "consultation for pain" combined v. No NOP	-	OR 1.06(0.89 - 1.25)	(as above)
			TSBT [TV + reading (non-screen) + computer + other]: >8h/d v. <4h/d	NOP, females "consultation for pain" (seeking medical help for pain) v. No NOP	-	**OR 1.72(1.05 - 2.82)**	Individual (Smoking, BMI, TST, PA level)
				NOP, females "reporting pain" (reporting pain but not seeking medical help) v. No NOP	-	**OR 1.32(1.09 - 1.60)**	(as above)
				NOP, males "reporting NOP" and "consultation for pain" combined v. No NOP	-	**OR 1.39(1.11 - 1.72)**	(as above)
			TSBT [TV + reading (non-screen) + computer + other]: 4.1-7.9h/d v. <4h/d	NOP, females "consultation for pain" (seeking medical help for pain) v. No NOP	-	OR 1.51(0.96 - 2.36)	(as above)
				NOP, females "reporting pain" (reporting pain but not seeking medical help) v. No NOP	-	**OR 1.21(1.02 - 1.44)**	(as above)
				NOP, males "reporting NOP" and "consultation for pain" combined v. No NOP	-	**OR 1.34(1.08 - 1.65)**	(as above)
			TV: >4h/d v. <1h/d	NOP, females "consultation for pain" (seeking medical help for pain) v. No NOP	-	**OR 2.47(1.14 - 5.32)**	Individual (Smoking, BMI, PA level)
				NOP, females "reporting pain" (reporting pain but not seeking medical help) v. No NOP	-	OR 1.25(0.97 - 1.62)	(as above)
				NOP, males "reporting NOP" and "consultation for pain" combined v. No NOP	-	OR 1.30(0.98 - 1.71)	(as above)
			TV: 1-2h/d v. <1h/d	NOP, females "consultation for pain" (seeking medical help for pain) v. No NOP	-	**OR 2.42(1.18 - 4.96)**	(as above)
				NOP, females "reporting pain" (reporting pain but not seeking medical help) v. No NOP	-	**OR 1.35(1.08 - 1.69)**	(as above)
				NOP, males "reporting NOP" and "consultation for pain" combined v. No NOP	-	OR 1.15(0.88 - 1.49)	(as above)
			TV: 2.1-3.9h/d v. <1h/d	NOP, females "consultation for pain" (seeking medical help for pain) v. No NOP	-	**OR 2.34(1.10 - 5.01)**	(as above)
				NOP, females "reporting pain" (reporting pain but not seeking medical help) v. No NOP	-	OR 1.23(0.96 - 1.57)	(as above)
				NOP, males "reporting NOP" and "consultation for pain" combined v. No NOP	-	OR 1.22(0.92 - 1.61)	(as above)
Auvinen 2008[i]	Finland, Birth cohort, Northern Finland Birth Cohort 1986 (follow-up data 2001-2002)	n=9215(F53.0%), 15-16y (NR±NR)	TSBT [TV + reading (non-screen) + computer + other]: >8h/d v. <4h/d	LBP, females "consultation for pain" (seeking medical help for pain) v. No LBP	**OR 1.96(1.27 - 3.02)**	**OR 2.01(1.29 - 3.14)** / -	Individual (Obesity, Smoking, PA level)
				LBP, females "reporting pain" (reporting pain but not seeking medical help) v. No LBP	**OR 1.39(1.15 - 1.68)**	**OR 1.37(1.13 - 1.66)** / -	Individual (Obesity, Smoking, PA level)
				LBP, males "consultation for pain" (seeking medical help for pain) v. No LBP	OR 0.92(0.55 - 1.54)	OR 0.99(0.58 - 1.66) / -	Individual (Obesity, Smoking, PA level)
				LBP, males "reporting pain" (reporting pain but not seeking medical help) v. No LBP	-	OR 0.97(0.78 - 1.21) / -	Individual (Obesity, Smoking, PA level)

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Study	Setting	Sample (n, F%, age)	Exposure	Outcome	Unadjusted estimate	Adjusted estimate	Adjustment
(continued)			TSBT [TV + reading (non-screen) + computer + other]: 4.1-7.9h/d v. <4h/d	LBP, females "consultation for pain" (seeking medical help for pain) v. No LBP	OR 0.94(0.76 - 1.17)	OR 1.43(0.94 - 2.15)	Individual (Obesity, Smoking, PA level)
				LBP, females "reporting pain" (reporting pain but not seeking medical help) v. No LBP	OR 1.37(0.91 - 2.07)	OR 1.11(0.94 - 1.32)	Individual (Obesity, Smoking, PA level)
				LBP, males "consultation for pain" (seeking medical help for pain) v. No LBP	OR 1.11(0.94 - 1.32)	OR 1.38(0.86 - 2.21)	Individual (Obesity, Smoking, PA level)
				LBP, males "reporting pain" (reporting pain but not seeking medical help) v. No LBP	OR 1.36(0.85 - 2.17)	OR 0.97(0.79 - 1.20)	Individual (Obesity, Smoking, PA level)
					OR 0.96(0.78 - 1.18)	-	-
Azabagic 2016	Bosnia and Herzegovina, School students	n=NR(F50.4%), 8-12y (11.3±1.5)	Computer : h v. NA, continuous variable	Back pain, acute v. Unclear	Correlation (spearman's)- 0.03	-	-
			Homework : h v. NA, continuous variable	NP, acute v. Unclear	Correlation (spearman's) 0.10	-	-
			Sitting, school : h v. NA, continuous variable	Back pain, acute v. Unclear	Correlation (spearman's) 0.21	-	-
				NP, acute v. Unclear	Correlation (spearman's) 0.10	-	-
Balague 1988	Switzerland, School students	n=>1700(F51.0%), 7-17y (12.0±NR)	TV: >2h/d v. <2h/d	LBP v. No LBP	OR calculated 2.44(1.72 - 3.48) p-value, p=0.0000	-	-
Balague 1994	Switzerland, School students	n=1756(F50.6%), 8-16y (11.7±NR)	TV: Coded; 1=<1h, 2=1-2h, 3=>2h) and treated as numeric v. NA	LBP, lifetime v. No LBP ever	OR 1.44(1.18 - 1.76)	OR 1.23(1.00 - 1.52)	Individual (Age, Gender, Frequency of Sports Activities) and environmental (Parent History)
Belanger 2011	Switzerland, nationally representative	n=7548(F45.8%), 16-20y (NR±NR)	Internet: <1h/w v. <=2h/d	Back pain, females, frequent (quite or very frequent) v. Back pain, females, infrequent (never or rarely)	-	RRR 0.96(0.68 - 1.35)	Individual (Age, Academic Track, Chronic Condition Presence, Physical Activity Amount) and environmental (SES (Parent Level of Edu))
				Back pain, males, frequent (quite or very frequent) v. Back pain, males, infrequent (never or rarely)	-	RRR 0.92(0.66 - 1.28)	(as above)
			Internet: >2h/d v. <=2h/d	Back pain, females, frequent (quite or very frequent) v. Back pain, females, infrequent (never or rarely)	-	RRR 0.88(0.46 - 1.67)	(as above)
				Back pain, males, frequent (quite or very frequent) v. Back pain, males, infrequent (never or rarely)	-	RRR 0.98(0.63 - 1.53)	(as above)
			Internet: 0h/m v. <=2h/d	Back pain, females, frequent (quite or very frequent) v. Back pain, females, infrequent (never or rarely)	-	RRR 1.06(0.69 - 1.63)	(as above)
				Back pain, males, frequent (quite or very frequent) v. Back pain, males, infrequent (never or rarely)	-	**RRR 1.87(1.26 - 2.79)**	(as above)
Ben Ayed 2019	Tunisia, School students	n=1221(F59.7%), 12-18y (15.6±2.0)	Computer : 1-4h/d v. <1h/d	Back pain, in last mth v. No back pain, in last month	OR 1.10(0.80 - 1.43)	-	-
				NP, in last mth v. No NP, in last month	OR 0.85(0.63 - 1.16)	-	-
			Computer: >4h/d v. <1h/d	Back pain, in last mth v. No back pain, in last month	**OR 1.56(1.17 - 2.10)**	-	-
				NP, in last mth v. No NP, in last month	**OR 1.54(1.16 - 2.06)**	-	-
			Gaming: >2h/d v. <1h/d	Back pain, in last mth v. No back pain, in last month	**OR 1.61(1.20 - 2.10)**	**OR 1.83(1.34 - 2.50)**	Individual (Age, Gender, BMI, School Grade) and environmental (Gaming, TV, Computer, Sport, Father Education, SES, Urban Residency)
				NP, in last mth v. No NP, in last month	OR 0.83(0.76 - 1.30)	-	-
			Gaming: 1-2h/d v. <1h/d	Back pain, in last mth v. No back pain, in last month	-	OR 1.16(0.83 - 1.60)	Individual (Age, Gender, BMI, School Grade) and

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Study	Setting	Sample	Exposure	Outcome			Confounders
							environmental (Gaming, TV, Computer, Sport, Father Education, SES, Urban Residency)
			TV: >12h/d v. <3h/d	NP, in last mth v. No NP, in last month	OR 1.03(0.75 - 1.40)	-	-
				Back pain, in last mth v. No back pain, in last month	OR 0.80(0.60 - 1.15)	-	-
					-	**OR 1.50(1.10 - 2.10)**	Individual (Age, Gender, BMI, School Grade) and environmental (Gaming, TV, Computer, Sport, Father Education, SES, Urban Residency)
			TV: 3-12h/d v. <3h/d	NP, in last mth v. No NP, in last month	**OR 1.50(1.10 - 2.07)**	-	-
				Back pain, in last mth v. No back pain, in last month	OR 1.18(0.85 - 1.60)	-	-
					-	OR 1.00(0.80 - 1.40)	Individual (Age, Gender, BMI, School Grade) and environmental (Gaming, TV, Computer, Sport, Father Education, SES, Urban Residency)
				NP, in last mth v. No NP, in last month	OR 1.03(0.79 - 1.34)	-	-
					OR 0.80(0.61 - 1.01)	-	-
Bento 2020	Brazil, School students	n=1628(F51.0%), 14-18y (NR±NR)	Cell phone: >3h/d v. <=2h/d	LBP v. no LBP	-	**PR 1.36(1.11 - 1.68)**	Individual (Unclear) and environmental (Unclear)
					PR 1.23(1.06 - 1.42)	-	-
			Computer: >3h/d v. <=2h/d		PR 1.02(0.91 - 1.14)	-	-
			Tablet: >3h/d v. <=2h/d		-	**PR 1.46(1.21 - 1.76)**	Individual (Unclear) and environmental (Unclear)
					PR 1.07(0.87 - 1.32)	-	-
			TV: >3h/d v. <=2h/d		-	**PR 1.17(1.01 - 1.36)**	Individual (Unclear) and environmental (Unclear)
					PR 1.09(0.98 - 1.21)	-	-
Briggs 2009[ii]	Australia, Birth cohort, Western Australian Pregnancy Cohort RAINE	n=2425(F54.6%), NRy (14.0±0.2)	Computer: >12h/w v. 0h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 1.35(0.57 - 3.19)	Individual (BMI, Smoking)
				NSP, males, in last mth v. No NSP, males, in last mth	-	OR 0.65(0.23 - 1.30)	(as above)
			Computer: 0-3h/w v. 0h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 1.25(0.55 - 2.82)	(as above)
				NSP, males, in last mth v. No NSP, males, in last mth	-	OR 0.85(0.30 - 2.42)	(as above)
			Computer: 3-6h/w v. 0h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 1.09(0.48 - 2.49)	(as above)
				NSP, males, in last mth v. No NSP, males, in last mth	-	OR 0.75(0.26 - 2.21)	(as above)
			Computer: 6-12h/w v. 0h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 0.90(0.39 - 2.09)	(as above)
				NSP, males, in last mth v. No NSP, males, in last mth	-	OR 0.70(0.24 - 1.99)	(as above)
			Light activity (>1-3 MET): <70h/w v. 80-90h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 1.72(0.61 - 4.84)	(as above)
				NSP, males, in last mth v. No NSP, males, in last mth	-	OR 0.96(0.38 - 2.38)	(as above)
			Light activity (>1-3 MET): >95h/w v. 80-90h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 1.40(0.69 - 2.85)	(as above)
				NSP, males, in last mth v. No NSP, males, in last mth	-	OR 0.79(0.32 - 1.94)	(as above)
			Light activity (>1-3 MET): 70-80h/w v. 80-90h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 1.35(0.73 - 2.51)	(as above)
				NSP, males, in last mth v. No NSP, males, in last mth	-	OR 1.04(0.51 - 2.13)	(as above)
			Light activity (>1-3 MET): 90-95h/w v. 80-90h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 1.79(0.96 - 3.30)	(as above)
				NSP, males, in last mth v. No NSP, males, in last mth	-	OR 1.06(0.45 - 2.45)	(as above)
			Reading : >4h/w v. 0h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 1.52(0.24 - 9.80)	(as above)
				NSP, males, in last mth v. No NSP, males, in last mth	-	OR 1.61(0.27 - 9.48)	(as above)

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Reading : 0-1h/w v. 0h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 1.19(0.65 - 2.17)	(as above)
	NSP, males, in last mth v. No NSP, males, in last mth	-	OR 0.86(0.45 - 1.65)	(as above)
Reading : 1-2h/w v. 0h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 1.17(0.57 - 2.38)	(as above)
	NSP, males, in last mth v. No NSP, males, in last mth	-	OR 0.88(0.35 - 2.22)	(as above)
Reading : 2-4h/w v. 0h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 1.36(0.52 - 3.59)	(as above)
	NSP, males, in last mth v. No NSP, males, in last mth	-	OR 1.89(0.75 - 4.81)	(as above)
Sedentary activity (<1 MET): <60h/w v. 65-70h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 0.59(0.23 - 1.53)	(as above)
	NSP, males, in last mth v. No NSP, males, in last mth	-	OR 0.51(0.18 - 1.48)	(as above)
Sedentary activity (<1 MET): >75h/w v. 65-70h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 0.64(0.31 - 1.33)	(as above)
	NSP, males, in last mth v. No NSP, males, in last mth	-	OR 0.94(0.39 - 2.27)	(as above)
Sedentary activity (<1 MET): 60-65h/w v. 65-70h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 1.37(0.76 - 2.47)	(as above)
	NSP, males, in last mth v. No NSP, males, in last mth	-	OR 0.96(0.48 - 1.88)	(as above)
Sedentary activity (<1 MET): 70-75h/w v. 65-70h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 0.44(0.23 - 0.85)	(as above)
	NSP, males, in last mth v. No NSP, males, in last mth	-	OR 0.38(0.15 - 0.96)	(as above)
Sitting: <40h/w v. 50-60h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 1.26(0.58 - 2.72)	(as above)
	NSP, males, in last mth v. No NSP, males, in last mth	-	OR 1.75(0.54 - 5.68)	(as above)
Sitting: >70h/w v. 50-60h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 0.81(0.36 - 1.79)	(as above)
	NSP, males, in last mth v. No NSP, males, in last mth	-	OR 1.37(0.58 - 3.22)	(as above)
Sitting: 40-50h/w v. 50-60h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 1.02(0.53 - 1.95)	(as above)
	NSP, males, in last mth v. No NSP, males, in last mth	-	OR 1.90(0.81 - 4.41)	(as above)
Sitting: 60-70h/w v. 50-60h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 1.02(0.57 - 1.83)	(as above)
	NSP, males, in last mth v. No NSP, males, in last mth	-	OR 1.44(0.69 - 3.01)	(as above)
TV &/or computer : >46h/w v. <12h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 0.52(0.10 - 2.73)	(as above)
	NSP, males, in last mth v. No NSP, males, in last mth	-	OR 1.28(0.31 - 5.35)	(as above)
TV &/or computer : 12-18h/w v. <12h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 1.60(0.73 - 3.50)	(as above)
	NSP, males, in last mth v. No NSP, males, in last mth	-	OR 1.69(0.38 - 7.46)	(as above)
TV &/or computer : 18-35h/w v. <12h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 1.18(0.60 - 2.32)	(as above)
	NSP, males, in last mth v. No NSP, males, in last mth	-	OR 1.05(0.27 - 4.01)	(as above)
TV &/or computer : 35-46h/w v. <12h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 1.45(0.59 - 3.56)	(as above)
	NSP, males, in last mth v. No NSP, males, in last mth	-	OR 1.00(0.24 - 4.21)	(as above)
TV: >32h/w v. <6h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 0.66(0.23 - 1.87)	(as above)
	NSP, males, in last mth v. No NSP, males, in last mth	-	OR 0.72(0.22 - 2.33)	(as above)
TV: 10-23h/w v. <6h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 0.51(0.25 - 1.05)	(as above)
	NSP, males, in last mth v. No NSP, males, in last mth	-	OR 0.81(0.31 - 2.15)	(as above)

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Study	Setting	Sample	Exposure	Outcome	Statistic	OR (95% CI)	Adjustment
			TV: 23-32h/w v. <6h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 0.69(0.28 - 1.70)	(as above)
				NSP, males, in last mth v. No NSP, males, in last mth	-	OR 0.65(0.22 - 1.94)	(as above)
			TV: 6-10h/w v. <6h/w	NSP, females, in last mth v. No NSP, females, in last mth	-	OR 0.59(0.26 - 1.35)	(as above)
				NSP, males, in last mth v. No NSP, males, in last mth	-	OR 0.59(0.17 - 1.97)	(as above)
Brindova 2015	Slovakia, nationally representative	n=8491(F51.4%), 11-15y (13.1±NR)	Computer &/or gaming: >3h/d v. <2h/d	SP v. Unclear	-	**OR 1.28(1.10 - 1.49)**	Individual (Age, Gender)
			Computer &/or gaming: 2-3h/d v. <2h/d		-	OR 0.98(0.86 - 1.12)	(as above)
			TV: >3h/d v. <2h/d		-	OR 1.07(0.91 - 1.26)	(as above)
			TV: 2-3h/d v. <2h/d		-	OR 0.94(0.82 - 1.08)	(as above)
Buabbas 2020	Kuwait, School students	n=3168(F53.6%), 6-18y (NR±NR)	Smart phone, tablet: >1h/session v. <1h/session	LBP v. No LBP	**OR calculated 1.29(1.07 - 1.55)**	-	-
				NSP v. No NSP	OR calculated 1.10(0.94 - 1.27)	-	-
			Smart phone, tablet: >2h/d v. <2h/d	LBP v. No LBP	**OR calculated 2.13(1.55 - 2.91)**	-	-
				NSP v. No NSP	**OR calculated 1.47(1.19 - 1.82)**	-	-
Burke 2002	USA, School students	n=212(F51.9%), 5-18y (12.4±NR)	Computer, weekend: h v. Unclear	Back pain (back discomfort) v. Unclear	Correlation r=−0.17	-	-
Cankurtaran 2022	Turkey, School students	n=1000(F43.6%), 10-15y (12.0±1.1)	Computer, gaming: m/d v. NA	NP, in last 3mths v. No NP	**p-value, p=0.02**	-	-
Cardon 2004	Belgium, School students	n=749(F51.1%), 8-12y (9.7±0.7)	TV &/or computer : h/w v. NA, continuous variable	Back pain, females, in last wk v. No back pain, females, in last wk	p-value, p=0.46	-	-
				Back pain, males, in last week v. No back pain, males, in last week	p-value, p=0.710	-	-
Chiang 2006	USA, School students	n=100(F61.1%), 13-14y (13.3±0.4)	Sitting, after school: >2h/night v. <2h/night	LBP, in last 2w v. No LBP, in last 2w	p-value, p>0.5	-	-
Chiwaridzo 2015	Zimbabwe, School students	n=544(FNR%), 13-19 y (NR±NR)	sitting: <2h/d v. Unclear sitting: >10h/d v. <2h/d	NSLBP v. No NSLBP	**p-value, p=0.04** OR calculated 0.79(0.16 - 3.98)	-	-
			sitting: >10h/d v. Unclear sitting: 3-4h/d v. <2h/d		p-value, p=0.28 OR calculated 0.89(0.46 - 1.72)	-	-
			sitting: 3-4h/d v. Unclear sitting: 5-6h/d v. <2h/d		**p-value, p<0.001 OR calculated 7.09(3.54 - 14.20)**	-	-
			sitting: 5-6h/d v. Unclear sitting: 7-10h/d v. <2h/d		**p-value, p<0.001 OR calculated 2.64(1.18 - 5.90)**	-	-
			sitting: 7-10h/d v. Unclear		p-value, p=0.13	-	-
da Costa 2022[xiv]	Brazil, School students	n=1166(F55.1%), NRy (13.1±2.3)	SB high: >=7.6h/d v. <=3.25h/d	LBP, boys, last week v. No LBP	- OR 1.66(0.80 - 3.45)	OR 1.71(0.80 - 3.65) -	Individual (PA, waist circumference) and environmental (SES)
				LBP, girls, last week v. No LBP	- **OR 2.64(1.39 - 5.02)**	**OR 2.49(1.30 - 4.76)** -	Individual (PA, waist circumference) and environmental (SES)
				NP, boys, last week v. No NP	- OR 2.11(0.96 - 4.65)	OR 2.09(0.94 - 4.65) -	Individual (PA, waist circumference) and environmental (SES)
				NP, girls, last week v. No NP	- **OR 1.95(1.07 - 3.57)**	**OR 1.91(1.02 - 3.53)** -	Individual (PA, waist circumference) and environmental (SES)
			SB moderate: 3.26-7.59h/d v. <=3.25h/d	LBP, boys, last week v. No LBP	- OR 1.70(0.86 - 3.38)	OR 1.86(0.92 - 3.77) -	Individual (PA, waist circumference) and environmental (SES)
				LBP, girls, last week v. No LBP	- **OR 2.80(1.52 - 5.15)**	**OR 2.73(1.45 - 5.02)** -	Individual (PA, waist circumference) and environmental (SES)

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Study	Location	Sample	Exposure	Outcome	Effect 1	Effect 2	Confounders
				NP, boys, last week v. No NP	-	**OR 2.75(1.31 - 5.78)**	Individual (PA, waist circumference) and environmental (SES)
					OR 2.60(1.25 - 5.45)	-	
				NP, girls, last week v. No NP	-	**OR 1.80(1.00 - 3.23)**	Individual (PA, waist circumference) and environmental (SES)
					OR 1.73(0.97 - 3.07)	-	
de Vitta 2011	Brazil, School students (city)	n=1332(F51.8%), 11 -14y (NR±NR)	TV, weekdays: >2h/d v. <=2h/d	LBP v. NR	-	**OR 1.86(1.29 - 2.69)**	Individual (Sex, sports engagement)
de Vitta 2014	Brazil, School students	n=536(F46.9%), 10-14y (NR±NR)	Computer: >2h/d v. <2h/d	NSP, females v. No NSP, females	-	ORNR(NR - NR)	Individual (Unclear) and environmental (Unclear)
				NSP, males v. No NSP, males	-	**OR 1.06(1.00 - 2.01)**	(as above)
			TV: >2h/d v. <2h/d	NSP, females v. No NSP, females	-	**OR 1.83(1.66 - 2.04)**	(as above)
				NSP, males v. No NSP, males	-	**OR 1.03(1.00 - 2.04)**	(as above)
de Vitta 2021	Brazil, School students	n=NR(F51.0%), 14-18y (NR±NR)	Computer: >3h/d v. <2h/d	NP. In last 12mths v. No NP	-	PR 1.07(0.96 - 1.19)	Individual (age, sex)
					-	**PR 1.14(1.01 - 1.30)**	Individual (sex, age, skin colour, marital status, SES, mental health)
			TV: >3h/d v. <2h/d		-	PR 1.05(0.95 - 1.17)	Individual (age, sex)
Deng 2014	China, School students (city)	n=3600(FNR%), NRy (NR±NR)	Sitting : >10h/d v. ≤10h/d	LBP v. No LBP	-	ORNR(NR - NR)	Individual (Sex) and environmental (Family History)
				NSP v. No NSP	**OR 1.49(1.27 - 1.75)** / ORNR(NR - NR)	-	-
Dianat 2017[iii]	Iran, School students	n=1700(F52.9%), 11-14y (13.4±0.9)	Computer: >4h/w v. <1h/w	LBP, in last mth >1d v. No LBP, in last mth or <1/d	OR 1.03(0.80 - 1.34)	-	-
		n=1700(F53.4%), 11-14y (13.4±0.9)	Computer: 1-4h/w v. <1h/w		OR 1.05(0.83 - 1.35)	-	-
		n=1700(F52.9%), 11-14y (13.4±0.9)	Gaming : >2h/w v. <1h/w		OR 0.96(0.75 - 1.22)	-	-
			Gaming : 1-2h/w v. <1h/w		OR 1.20(0.92 - 1.55)	-	-
			TV: >12h/w v. <3h/w		OR 1.17(0.91 - 1.50)	-	-
			TV: 3-12h/w v. <3h/w		OR 1.02(0.79 - 1.31)	-	-
Dianat 2018[iii]	Iran , School students	n=1700(F53.4%), 11-14y (13.4±0.9)	Computer: >4h/w v. <1h/w	NP, in last mth >1d v. No NP, in last mth or <1d	OR 0.99(0.75 - 1.31)	-	-
			Computer: 1-4h/w v. <1h/w		OR 1.14(0.88 - 1.48)	-	-
			Gaming : >2h/w v. <1h/w		OR 1.07(0.83 - 1.38)	-	-
			Gaming : 1-2h/w v. <1h/w		OR 1.16(0.88 - 1.53)	-	-
			TV: >12h/w v. <3h/w		OR 0.78(0.60 - 1.02)	-	-
			TV: 3-12h/w v. <3h/w		OR 0.89(0.68 - 1.15)	-	-
Diepenmaat 2006	Netherlands, School students	n=4898(F50.5%), 12-16y (NR±NR)	Computer: >3.01 h/d v. 0-0.5h/d	LBP, >4d last month v. No LBP, or <4d last month	OR 0.90(0.60 - 1.30)	-	-
				NSP, in last mth >4d v. NSP no or <4d last month	OR 1.20(0.80 - 1.60)	-	-
			Computer: 0.51-1.5h/d v. 0-0.5h/d	LBP, >4d last month v. No LBP, or <4d last month	OR 0.80(0.60 - 1.20)	-	-
				NSP, in last mth >4d v. NSP no or <4d last month	OR 0.80(0.60 - 1.10)	-	-
			Computer: 1.51-3.0h/d v. 0-0.5h/d	LBP, >4d last month v. No LBP, or <4d last month	OR 0.90(0.70 - 1.30)	-	-
				NSP, in last mth >4d v. NSP no or <4d last month	OR 1.00(0.80 - 1.40)	-	-
			TV: >4.00h/d v. 0-1.5h/d	LBP, >4d last month v. No LBP, or <4d last month	OR 0.80(0.60 - 1.20)	-	-
				NSP, in last mth >4d v. NSP no or <4d last month	OR 1.00(0.80 - 1.40)	-	-
			TV: 1.51-2.50h/d v. 0-1.5h/d	LBP, >4d last month v. No LBP, or <4d last month	OR 0.60(0.40 - 0.90)	-	-
				NSP, in last mth >4d v. NSP no or <4d last month	OR 0.80(0.60 - 1.10)	-	-
			TV: 2.51-4.00h/d v. 0-1.5h/d	LBP, >4d last month v. No LBP, or <4d last month	OR 0.80(0.60 - 1.10)	-	-
				NSP, in last mth >4d v. NSP no or <4d last month	OR 0.90(0.70 - 1.20)	-	-
Dolphens 2016	Belgium, School students	n=1196(F45.7%), 10-13y (G10.6 B12.6±G0.47 B0.54)	SB (screen behaviour + homework + reading), outside school hours: h/d v. Unclear	LBP, in last mth v. No LBP, in last mth	OR 1.01(0.64 - 1.59)	-	-
				MBP, in last mth v. No MBP, in last mth	OR 1.11(0.69 - 1.80)	-	-

Study	Country, population	n, sex, age	SB exposure	Outcome	Effect (col 1)	Effect (col 2)	Confounders
				NP, in last mth v. No NP, in last month	**OR 2.21(1.11 - 4.38)**	-	-
Dutra 2017	Brazil, School students (city)	n=172(F54.8%), NRy (NR±NR)	Computer: >4-5h/d v. >6h	Computer time in h v. NA	-	PR 1.07(0.73 - 1.40)	Individual (Unclear) and environmental (Unclear) (as above)
			Computer: 0-3h/d v. >6h		-	PR 1.11(0.84 - 1.46)	(as above)
			TV: >4-7h/d v. >8h	TV time in h v. NA	-	PR 1.06(0.71 - 1.58)	(as above)
			TV: 0-3h/d v. >8h		-	PR 1.17(0.83 - 1.66)	(as above)
Erne 2011	Switzerland , School students	n=214(F54.5%), 10.5-13y (11.4±0.6)	SB (TV + video + computer): Coded; 1=not at all, 2=0.5h, 3=0.5–1h, 4=1–1.5h, 5=1.5h daily and treated as numeric v. NA	LBP, in last mth >1d v. No LBP, in last mth or <1/d	OR 0.48(0.27 - 0.85)	-	-
				MBP, in last mth >1/d v. No MBP, in last mth >1/d	OR 0.75(0.50 - 1.13)	-	-
Faridizad 2019	Iran, School students	n=14400(F49.4%), 7-18y (NR±NR)	Computer: h/d v. NA	backache v. no BP	-	OR 1.06(0.99 - 1.14)	Individual (Gender, Age Group) and environmental (SES, Family Structure, Living Area)
					OR 1.10(1.02 - 1.18)	-	
			TV: h/d v. NA		-	OR 0.74(0.68 - 0.79)	Individual (Gender, Age Group) and environmental (SES, Family Structure, Living Area)
					OR 0.75(0.70 - 0.81)	-	
Fernandes 2015	Brazil, School students	n=1693(F93.8%), 10-14y (NR±NR)	TV: ≥2x/w & ≥2h/d v. <2x/w & <2h/d	LBP v. No LBP	-	OR 1.31(0.86 - 1.96)	Individual (Unclear) and environmental (Unclear)
			TV: ≥3x/w & ≥3h/d v. <2x/w & <2h/d		-	**OR 1.53(1.04 - 2.27)**	(as above)
Fonseca 2016		n=515(F100.0%), 14-18y (NR±NR)	Computer: >8h/w v. <8h/w	Back pain v. No back pain	OR calculated 1.40(0.72 - 2.73) PR 1.08(0.94 - 1.24)	-	-
			TV: >10h/w v. <10h/w		**OR calculated 1.89(1.18 - 3.03)** PR 1.15(1.05 - 1.27)	-	-
			TV: h/w v. Unclear		-	PR 0.68(0.35 - 1.11)	Individual (Unclear) and environmental (Heavy Backpack, Incorrect Posture in Classroom, Incorrect Posture Using Computer, Reading/Studying in Bed, Incorrect Posture When Picking Up Object from Floor?)
Fraile Garcia 2009	Brazil, School students (rural)	n=NR(F49.2%), 11 12y (10.4±NR)	TV time/ day: continuing variable v. NA, continuous variable	TV time in h v. NR	p-value, p>0.050	-	-
Franca 2020	Brazil, School students	n=NR(F47.5%), 10-16y (11.95 M, 12.02 F±0.65 M, 0.74 F)	Screen time : >2h/d v. <2h/d	LBP, females v. No LBP	OR 0.82(0.32 - 2.11)	-	-
				LBP, males v. No LBP	OR 0.70(0.29 - 1.75)	-	-
				MBP, females v. No MBP	OR 1.80(0.75 - 4.33)	-	-
				MBP, males v. No MBP	OR 0.63(0.31 - 1.32)	-	-
				NP, females v. No NP	OR 0.58(0.26 - 1.30)	-	-
				NP, males v. No NP	OR 0.96(0.44 - 2.10)	-	-
Geldhof 2007	Belgium, School students	n=NR(F48.6%), 8.5-12.5y (9.8±0.8)	Reading &/or writing: 30min v. NA, continuous variable	SP, in last week (Back pain or NP) v. Unclear	p-value, NS	-	-
			sitting: 30min v. NA, continuous variable		p-value, NS	-	-
Gheysvandi 2019[iv]	Iran, School students	n=780(F54.1%), 7-12y (9.7±1.6)	Cell phone/tablet : >3h/d v. <1h/d	NP, >=1d in last 1m v. no NP in last 1m	OR 1.92(0.95 - 3.87)	-	-
			Cell phone/tablet : 1-3h/d v. <1h/d		**OR 2.11(1.08 - 4.13)**	-	-
			Computer: >3h/d v. <1h/d		OR 1.38(0.38 - 4.95)	-	-
			Computer: 1-3h/d v. <1h/d		OR 1.40(0.43 - 4.52)	-	-
			Gaming (computer): >3h/d v. <1h/d		OR 1.74(0.67 - 4.49)	-	-
			Gaming (computer): 1-3h/d v. <1h/d		OR 1.54(0.67 - 3.52)	-	-
			TV: >3h/d v. <1h/d		OR 1.03(0.71 - 1.50)	-	-
			TV: 1-3h/d v. <1h/d		OR 1.22(0.82 - 1.80)	-	-
Gonzalez-Galvez 2022	Spain, School students	n=NR(F42.6%), 12-17y (14.1±1.2)	SB: >2h/d v. <2h/d	SP, limited school/leisure activities for >3m v. No SP, SP not impactful, SP <3m	-	OR 0.92(NR - NR)	Individual (Physical Activity)
					-	OR 0.97(NR - NR)	Individual (Gender)
Graup 2014	Brazil, School students	n=1455(F53.8%), 10-17y (NR±NR)	SB (TV + computer + gaming): >3h/d v. <3h/d	LBP (often, all the time) v. No LBP (never, a few times)	OR calculated 1.17(0.87 - 1.58) p-value, p=0.168	-	-
Grimmer 2000	Australia, School students	n=2075(F48.7%), 15-16y (15.8±0.5)	TSBT, after school: >10h/d v. <2h/d	LBP, females v. No LBP, females	OR 2.00(0.10 - 34.80)	-	-

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Sample	Exposure	Comparison	Estimate		
n=2075(F48.7%), 12-13y (12.9±0.5)			OR 2.10(0.20 - 24.80)	-	-
n=2075(F48.7%), 13-14y (13.8±0.4)			OR 3.20(0.20 - 64.60)	-	-
n=2075(F48.7%), 14-15y (14.8±0.6)			ORNR(NR - NR)	-	-
n=2075(F48.7%), 16-17y (16.8±0.5)			ORNR(NR - NR)	-	-
n=2075(F48.7%), 14-15y (14.9±0.5)		LBP, males v. No LBP, males	OR 0.90(0.10 - 9.70)	-	-
n=2075(F48.7%), 13-14y (13.8±0.4)			OR 1.10(0.10 - 11.80)	-	-
n=2075(F48.7%), 12-13y (12.9±0.5)			OR 15.50(0.70 - 35.0)	-	-
n=2075(F48.7%), 15-16y (15.8±0.6)			ORNR(NR - NR)	-	-
n=2075(F48.7%), 16-17y (16.8±0.5)			ORNR(NR - NR)	-	-
n=2075(F48.7%), 13-14y (13.8±0.4)	TSBT, after school: 2-4h/d v. <2h/d	LBP, females v. No LBP, females	OR 1.10(0.30 - 4.30)	-	-
n=2075(F48.7%), 12-13y (12.9±0.5)			OR 1.50(0.40 - 4.80)	-	-
n=2075(F48.7%), 15-16y (15.8±0.5)			OR 2.10(0.40 - 11.00)	-	-
n=2075(F48.7%), 14-15y (14.8±0.6)			OR 2.90(0.50 - 14.80)	-	-
n=2075(F48.7%), 16-17y (16.8±0.5)			OR 3.50(0.30 - 38.80)	-	-
n=2075(F48.7%), 13-14y (13.8±0.4)		LBP, males v. No LBP, males	OR 0.60(0.20 - 1.80)	-	-
n=2075(F48.7%), 14-15y (14.9±0.5)			OR 0.70(0.20 - 2.10)	-	-
n=2075(F48.7%), 16-17y (16.8±0.5)			OR 1.10(0.30 - 1.80)	-	-
n=2075(F48.7%), 15-16y (15.8±0.6)			OR 2.70(0.70 - 10.70)	-	-
n=2075(F48.7%), 12-13y (12.9±0.5)			OR 2.90(0.60 - 14.30)	-	-
n=2075(F48.7%), 13-14y (13.8±0.4)	TSBT, after school: 4-6h/d v. <2h/d	LBP, females v. No LBP, females	OR 0.90(0.20 - 3.50)	-	-
n=2075(F48.7%), 16-17y (16.8±0.5)			OR 2.70(0.30 - 26.10)	-	-
n=2075(F48.7%), 15-16y (15.8±0.5)			OR 3.00(0.60 - 15.60)	-	-
n=2075(F48.7%), 12-13y (12.9±0.5)			**OR 3.60(1.20 - 11.00)**	-	-
n=2075(F48.7%), 14-15y (14.8±0.6)			**OR 6.90(1.40 - 33.50)**	-	-
n=2075(F48.7%), 14-15y (14.9±0.5)		LBP, males v. No LBP, males	OR 0.70(0.20 - 2.70)	-	-
n=2075(F48.7%), 13-14y (13.8±0.4)			OR 1.60(0.60 - 4.60)	-	-
n=2075(F48.7%), 15-16y (15.8±0.6)			OR 1.70(0.40 - 7.30)	-	-
n=2075(F48.7%), 12-13y (12.9±0.5)			OR 3.20(0.60 - 17.20)	-	-
n=2075(F48.7%), 16-17y (16.8±0.5)			ORNR(NR - NR)	-	-
n=2075(F48.7%), 15-16y (15.8±0.5)	TSBT, after school: 6-10h/d v. <2h/d	LBP, females v. No LBP, females	OR 4.70(0.70 - 31.00)	-	-
n=2075(F48.7%), 12-13y (12.9±0.5)			**OR 5.30(1.20 - 24.30)**	-	-
n=2075(F48.7%), 16-17y (16.8±0.5)			OR 5.70(0.50 - 62.60)	-	-
n=2075(F48.7%), 14-15y (14.8±0.6)			**OR 9.60(1.50 - 62.70)**	-	-
n=2075(F48.7%), 13-14y (13.8±0.4)			ORNR(NR - NR)	-	-

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Study	Setting	Sample	Exposure	Outcome	OR (unadjusted)	OR (adjusted)	Adjustments
		n=2075(F48.7%), 15-16y (15.8±0.6)		LBP, males v. No LBP, males	OR 1.30(0.20 - 9.90)	-	-
		n=2075(F48.7%), 12-13y (12.9±0.5)			OR 5.80(0.80 - 40.90)	-	-
		n=2075(F48.7%), 13-14y (13.8±0.4)			ORNR(NR - NR)	-	-
		n=2075(F48.7%), 14-15y (14.9±0.5)			ORNR(NR - NR)	-	-
		n=2075(F48.7%), 16-17y (16.8±0.5)			ORNR(NR - NR)	-	-
Gunzburg 1999	Belgium, School students	n=NR(F48.5%), 9y (9.0±NR)	Gaming : >2h/d v. <2h/d	LBP v. No LBP	**p-value, p=0.03**	-	-
			Gaming: >2h/d v. <2h/d		**OR calculated 3.75(1.38 - 10.23)**	-	-
			TV: >2h/d v. <2h/d		OR calculated 1.00(0.60 - 1.67)	-	-
Hakala 2006[v]	Finland, nationally representative	n=8810(F55.6%), 14-18y (NR±NR)	Computer : >5h/d v. Not at all, or not daily	LBP, weekly v. LBP, less frequent than weekly	-	**OR 2.00(1.00 - 4.20)**	Individual (Age, Sex, School Success, Timing of Puberty, Stress Symptoms)
				NSP, at least weekly v. No NSP, or less frequent than weekly	-	OR 1.40(0.70 - 3.00)	Individual (Age, Sex, School Success, Timing of Puberty, Efficiency of Physical Activity, Stress Symptoms) and environmental (Parents Level of Education)
			Computer : ≤1h/d v. Not at all, or not daily	LBP, weekly v. LBP, less frequent than weekly	-	OR 0.90(0.80 - 1.20)	Individual (Age, Sex, School Success, Timing of Puberty, Stress Symptoms)
				NSP, at least weekly v. No NSP, or less frequent than weekly	-	OR 1.00(0.80 - 1.30)	Individual (Age, Sex, School Success, Timing of Puberty, Efficiency of Physical Activity, Stress Symptoms) and environmental (Parents Level of Education)
			Computer : ≥42h/w v. Not at all	LBP, weekly v. LBP, less frequent than weekly	-	**OR 1.70(1.00 - 3.10)**	Individual (Age, Sex, School Success, Timing of Puberty, Stress Symptoms)
				NSP, at least weekly v. No NSP, or less frequent than weekly	-	**OR 2.50(1.50 - 4.30)**	Individual (Age, Sex, School Success, Timing of Puberty, Efficiency of Physical Activity, Stress Symptoms) and environmental (Parents Level of Education)
			Computer : 1-13h/w v. Not at all	LBP, weekly v. LBP, less frequent than weekly	-	OR 0.90(0.70 - 1.30)	Individual (Age, Sex, School Success, Timing of Puberty, Stress Symptoms)
				NSP, at least weekly v. No NSP, or less frequent than weekly	-	OR 1.10(0.80 - 1.40)	Individual (Age, Sex, School Success, Timing of Puberty, Efficiency of Physical Activity, Stress Symptoms) and environmental (Parents Level of Education)
			Computer : 14-41h/w v. Not at all	LBP, weekly v. LBP, less frequent than weekly	-	OR 1.00(0.70 - 1.50)	Individual (Age, Sex, School Success, Timing of Puberty, Stress Symptoms)
				NSP, at least weekly v. No NSP, or less frequent than weekly	-	OR 1.20(0.90 - 1.70)	Individual (Age, Sex, School Success, Timing of Puberty, Efficiency of Physical Activity, Stress Symptoms) and environmental (Parents Level of Education)
			Computer : 2-3h/d v. Not at all, or not daily	LBP, weekly v. LBP, less frequent than weekly	-	OR 0.90(0.60 - 1.30)	Individual (Age, Sex, School Success, Timing of Puberty, Stress Symptoms)
				NSP, at least weekly v. No NSP, or less frequent than weekly	-	**OR 1.30(1.00 - 1.70)**	Individual (Age, Sex, School Success, Timing of Puberty, Efficiency of Physical Activity, Stress Symptoms) and environmental (Parents Level of Education)

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Computer : 4-5h/d v. Not at all, or not daily	LBP, weekly v. LBP, less frequent than weekly	-	OR 0.70(0.30 - 1.60)	Individual (Age, Sex, School Success, Timing of Puberty, Stress Symptoms)
	NSP, at least weekly v. No NSP, or less frequent than weekly	-	**OR 1.80(1.00 - 3.30)**	Individual (Age, Sex, School Success, Timing of Puberty, Efficiency of Physical Activity, Stress Symptoms) and environmental (Parents Level of Education)
Gaming : >5h/d v. Not at all, or not daily	LBP, weekly v. LBP, less frequent than weekly	-	**OR 2.00(1.10 - 3.50)**	Individual (Age, Sex, School Success, Timing of Puberty, Stress Symptoms)
	NSP, at least weekly v. No NSP, or less frequent than weekly	-	OR 1.40(0.80 - 2.40)	Individual (Age, Sex, School Success, Timing of Puberty, Efficiency of Physical Activity, Stress Symptoms) and environmental (Parents Level of Education)
Gaming : ≤1h/d v. Not at all, or not daily	LBP, weekly v. LBP, less frequent than weekly	-	OR 0.90(0.70 - 1.10)	Individual (Age, Sex, School Success, Timing of Puberty, Stress Symptoms)
	NSP, at least weekly v. No NSP, or less frequent than weekly	-	OR 0.90(0.70 - 1.10)	Individual (Age, Sex, School Success, Timing of Puberty, Efficiency of Physical Activity, Stress Symptoms) and environmental (Parents Level of Education)
Gaming : 2-3h/d v. Not at all, or not daily	LBP, weekly v. LBP, less frequent than weekly	-	OR 0.80(0.60 - 1.10)	Individual (Age, Sex, School Success, Timing of Puberty, Stress Symptoms)
	NSP, at least weekly v. No NSP, or less frequent than weekly	-	OR 1.00(0.80 - 1.30)	Individual (Age, Sex, School Success, Timing of Puberty, Efficiency of Physical Activity, Stress Symptoms) and environmental (Parents Level of Education)
Gaming : 4-5h/d v. Not at all, or not daily	LBP, weekly v. LBP, less frequent than weekly	-	OR 0.90(0.50 - 1.60)	Individual (Age, Sex, School Success, Timing of Puberty, Stress Symptoms)
	NSP, at least weekly v. No NSP, or less frequent than weekly	-	OR 1.00(0.60 - 1.60)	Individual (Age, Sex, School Success, Timing of Puberty, Efficiency of Physical Activity, Stress Symptoms) and environmental (Parents Level of Education)
Internet: ≥42h/w v. Not at all	LBP, weekly v. LBP, less frequent than weekly	-	**OR 1.80(1.00 - 3.40)**	Individual (Age, Sex, School Success, Timing of Puberty, Stress Symptoms)
	NSP, at least weekly v. No NSP, or less frequent than weekly	-	**OR 1.70(1.00 - 3.10)**	Individual (Age, Sex, School Success, Timing of Puberty, Efficiency of Physical Activity, Stress Symptoms) and environmental (Parents Level of Education)
Internet: 1-13h/w v. Not at all	LBP, weekly v. LBP, less frequent than weekly	-	OR 0.90(0.70 - 1.20)	Individual (Age, Sex, School Success, Timing of Puberty, Stress Symptoms)
	NSP, at least weekly v. No NSP, or less frequent than weekly	-	OR 1.10(0.90 - 1.40)	Individual (Age, Sex, School Success, Timing of Puberty, Efficiency of Physical Activity, Stress Symptoms) and environmental (Parents Level of Education)
Internet: 14-41h/w v. Not at all	LBP, weekly v. LBP, less frequent than weekly	-	OR 0.90(0.60 - 1.40)	Individual (Age, Sex, School Success, Timing of Puberty, Stress Symptoms)
	NSP, at least weekly v. No NSP, or less frequent than weekly	-	**OR 1.40(1.00 - 2.00)**	Individual (Age, Sex, School Success, Timing of Puberty, Efficiency of Physical Activity,

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				Stress Symptoms) and environmental (Parents Level of Education)
Mobile phone: >5h/d v. Not at all, or not daily	LBP, weekly v. LBP, less frequent than weekly	-	OR 1.00(0.50 - 2.30)	Individual (Age, Sex, School Success, Timing of Puberty, Stress Symptoms)
	NSP, at least weekly v. No NSP, or less frequent than weekly	-	OR 1.70(0.90 - 3.20)	Individual (Age, Sex, School Success, Timing of Puberty, Efficiency of Physical Activity, Stress Symptoms) and environmental (Parents Level of Education)
Mobile phone: ≤1h/d v. Not at all, or not daily	LBP, weekly v. LBP, less frequent than weekly	-	OR 0.90(0.60 - 1.20)	Individual (Age, Sex, School Success, Timing of Puberty, Stress Symptoms)
	NSP, at least weekly v. No NSP, or less frequent than weekly	-	OR 1.10(0.90 - 1.30)	Individual (Age, Sex, School Success, Timing of Puberty, Efficiency of Physical Activity, Stress Symptoms) and environmental (Parents Level of Education)
Mobile phone: 2-3h/d v. Not at all, or not daily	LBP, weekly v. LBP, less frequent than weekly	-	OR 1.00(0.70 - 1.50)	Individual (Age, Sex, School Success, Timing of Puberty, Stress Symptoms)
	NSP, at least weekly v. No NSP, or less frequent than weekly	-	OR 1.00(0.80 - 1.40)	Individual (Age, Sex, School Success, Timing of Puberty, Efficiency of Physical Activity, Stress Symptoms) and environmental (Parents Level of Education)
Mobile phone: 4-5h/d v. Not at all, or not daily	LBP, weekly v. LBP, less frequent than weekly	-	OR 1.20(0.50 - 2.60)	Individual (Age, Sex, School Success, Timing of Puberty, Stress Symptoms)
	NSP, at least weekly v. No NSP, or less frequent than weekly	-	OR 0.70(0.30 - 1.30)	Individual (Age, Sex, School Success, Timing of Puberty, Efficiency of Physical Activity, Stress Symptoms) and environmental (Parents Level of Education)
TV: >5h/d v. Not at all, or not daily	LBP, weekly v. LBP, less frequent than weekly	-	OR 1.30(0.70 - 2.30)	Individual (Age, Sex, School Success, Timing of Puberty, Stress Symptoms)
	NSP, at least weekly v. No NSP, or less frequent than weekly	-	OR 0.80(0.40 - 1.40)	Individual (Age, Sex, School Success, Timing of Puberty, Efficiency of Physical Activity, Stress Symptoms) and environmental (Parents Level of Education)
TV: ≤1h/d v. Not at all, or not daily	LBP, weekly v. LBP, less frequent than weekly	-	OR 0.90(0.60 - 1.20)	Individual (Age, Sex, School Success, Timing of Puberty, Stress Symptoms)
	NSP, at least weekly v. No NSP, or less frequent than weekly	-	OR 0.90(0.70 - 1.10)	Individual (Age, Sex, School Success, Timing of Puberty, Efficiency of Physical Activity, Stress Symptoms) and environmental (Parents Level of Education)
TV: 2-3h/d v. Not at all, or not daily	LBP, weekly v. LBP, less frequent than weekly	-	OR 0.90(0.70 - 1.20)	Individual (Age, Sex, School Success, Timing of Puberty, Stress Symptoms)
	NSP, at least weekly v. No NSP, or less frequent than weekly	-	OR 0.80(0.70 - 1.00)	Individual (Age, Sex, School Success, Timing of Puberty, Efficiency of Physical Activity, Stress Symptoms) and environmental (Parents Level of Education)
TV: 4-5h/d v. Not at all, or not daily	LBP, weekly v. LBP, less frequent than weekly	-	OR 1.00(0.70 - 1.40)	Individual (Age, Sex, School Success, Timing of Puberty, Stress Symptoms)

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Author/Year	Setting	Sample	Exposure	Outcome	Statistic	Effect (95% CI)	Adjustment
				NSP, at least weekly v. No NSP, or less frequent than weekly	-	OR 0.80(0.60 - 1.20)	Individual (Age, Sex, School Success, Timing of Puberty, Efficiency of Physical Activity, Stress Symptoms) and environmental (Parents Level of Education)
Hakala 2010[v]	Finland, nationally representative	n=10360(F Unclear %), 12-18y (NR±NR)	Computer : <1h/d v. Not daily	LBP, computer related, often v. No LBP, or not computer related, or infrequent	-	OR 0.80(0.40 - 1.40)	Individual (Age, Sex) and environmental (Parents Education)
				NSP, computer related, often v. No NSP, or not computer related, or infrequent	-	OR 1.10(0.80 - 1.50)	(as above)
			Computer : >4h/d v. Not daily	LBP, computer related, often v. No LBP, or not computer related, or infrequent	-	**OR 2.60(1.10 - 6.10)**	(as above)
				NSP, computer related, often v. No NSP, or not computer related, or infrequent	-	**OR 2.20(1.10 - 4.20)**	(as above)
			Computer : 1-3h/d v. Not daily	LBP, computer related, often v. No LBP, or not computer related, or infrequent	-	OR 1.10(0.70 - 1.70)	(as above)
				NSP, computer related, often v. No NSP, or not computer related, or infrequent	-	**OR 1.50(1.10 - 2.00)**	(as above)
Hakala 2012	Finland, School students	n=689(F53.7%), 12 -13, 15 -16 y (NR±NR)	Computer : ≥14h/w v. <3.6h/w	LBP mild inconvenience v. No LBP, no inconvenience	-	**OR 2.10(1.00 - 4.30)**	Individual (Sex, School Grade)
				LBP mild pain intensity v. No LBP, no inconvenience	-	**OR 3.10(1.50 - 6.70)**	(as above)
				LBP severe/moderate inconvenience v. No LBP, no inconvenience	-	**OR 2.50(1.20 - 5.50)**	(as above)
				LBP severe/moderate pain intensity v. No LBP, no inconvenience	-	**OR 3.50(1.50 - 8.30)**	(as above)
				NSP, mild inconvenience v. No NSP, no inconvenience	-	OR 1.10(0.60 - 2.10)	(as above)
				NSP, mild pain intensity v. No NSP	-	**OR 1.90(1.00 - 3.60)**	(as above)
				NSP, severe/moderate inconvenience v. No NSP, no/mild inconvenience	-	OR 1.10(0.50 - 2.20)	(as above)
				NSP, severe/moderate pain intensity v. No NSP, or mild intensity	-	**OR 2.90(1.40 - 6.10)**	(as above)
			Computer : 3.6-13.99h/w v. <3.6h/w	LBP mild inconvenience v. No LBP, no inconvenience	-	OR 1.80(0.90 - 3.50)	(as above)
				LBP mild pain intensity v. No LBP, no inconvenience	-	**OR 2.40(1.20 - 4.80)**	(as above)
				LBP severe/moderate inconvenience v. No LBP, no inconvenience	-	OR 1.50(0.70 - 3.20)	(as above)
				LBP severe/moderate pain intensity v. No LBP, no inconvenience	-	OR 1.60(0.70 - 3.80)	(as above)
				NSP, mild inconvenience v. No NSP, no inconvenience	-	OR 1.30(0.70 - 2.30)	(as above)
				NSP, mild pain intensity v. No NSP	-	OR 1.60(0.90 - 2.90)	(as above)
				NSP, severe/moderate inconvenience v. No NSP, no/mild inconvenience	-	OR 1.30(0.70 - 2.50)	(as above)
				NSP, severe/moderate pain intensity v. No NSP, or mild intensity	-	**OR 2.60(1.30 - 5.30)**	(as above)
Harreby 1999	Denmark, School students	n=NR(F51.7%), 13-16y (NR±NR)	Computer : >3h/d v. <3h/d Sitting: >3h/d v. <3h/d	LBP v. Unclear	p-value, p>0.05 p-value, p>0.05	- -	- -
Hulsegge 2011[vi]	Netherlands, Birth cohort, PIAMA birth cohort	n=3963(F49.8%), 11y (11.3±NR)	TV &/or computer: >2h/d v. <2h/d	Back complaints >1m v. Unclear	OR 1.08(0.66 - 1.75)	-	-
Joergensen 2021	Denmark, Birth cohort, Danish National Birth Cohort	n=NR(F52.3%), 11-12y (NR±NR)	Screen time: >=6h/d v. <2h/d	SP, boys, moderate v. No moderate or severe SP	-	**RRR 1.30(1.16 - 1.46)**	Individual (age, physical activity, parity,) and environmental (family type, parental education, household income)
					-	**RRR 1.34(1.19 - 1.50)**	Individual (physical activity)
					RRR 1.38(1.23 - 1.55)	-	-
				SP, boys, severe v. No moderate or severe SP	-	**RRR 1.95(1.65 - 2.32)**	Individual (age, physical activity, parity,) and environmental (family type, parental education, household income)
					-	**RRR 2.11(1.78 - 2.51)**	Individual (physical activity)

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Study	Population	Sample	Exposure	Outcome	Estimate A	Estimate B	Adjustment
					RRR 2.21(1.87 - 2.62)	-	-
				SP, girls, moderate v. No moderate or severe SP	-	**RRR 1.69(1.48 - 1.93)**	Individual (age, physical activity, parity,) and environmental (family type, parental education, household income)
					-	RRR 1.76(1.54 - 2.01)	Individual (physical activity)
				SP, girls, severe v. No moderate or severe SP	**RRR 1.80(1.58 - 2.05)**	-	-
					-	RRR 2.49(2.13 - 2.92)	Individual (age, physical activity, parity,) and environmental (family type, parental education, household income)
					-	RRR 2.77(2.37 - 3.24)	Individual (physical activity)
			Screen time: 2-<4h/d v. <2h/d	SP, boys, moderate v. No moderate or severe SP	**RRR 2.89(2.48 - 3.38)**	-	-
					-	RRR 1.10(1.01 - 1.20)	Individual (age, physical activity, parity,) and environmental (family type, parental education, household income)
					-	RRR 1.11(1.01 - 1.21)	Individual (physical activity)
				SP, boys, severe v. No moderate or severe SP	**RRR 1.11(1.02 - 1.22)**	-	-
					-	RRR 1.21(1.05 - 1.39)	Individual (age, physical activity, parity,) and environmental (family type, parental education, household income)
					-	RRR 1.23(1.06 - 1.41)	Individual (physical activity)
				SP, girls, moderate v. No moderate or severe SP	**RRR 1.24(1.07 - 1.43)**	-	-
					-	RRR 1.23(1.15 - 1.32)	Individual (age, physical activity, parity,) and environmental (family type, parental education, household income)
					-	RRR 1.24(1.16 - 1.33)	Individual (physical activity)
				SP, girls, severe v. No moderate or severe SP	**RRR 1.25(1.17 - 1.34)**	-	-
					-	RRR 1.24(1.13 - 1.37)	Individual (age, physical activity, parity,) and environmental (family type, parental education, household income)
					-	RRR 1.28(1.16 - 1.41)	Individual (physical activity)
			Screen time: 4-<6h/d v. <2h/d	SP, boys, moderate v. No moderate or severe SP	**RRR 1.30(1.18 - 1.43)**	-	-
					-	RRR 1.26(1.15 - 1.39)	Individual (age, physical activity, parity,) and environmental (family type, parental education, household income)
					-	RRR 1.29(1.17 - 1.41)	Individual (physical activity)
				SP, boys, severe v. No moderate or severe SP	**RRR 1.31(1.19 - 1.44)**	-	-
					-	RRR 1.41(1.20 - 1.64)	Individual (age, physical activity, parity,) and environmental (family type, parental education, household income)
					-	RRR 1.47(1.26 - 1.71)	Individual (physical activity)
				SP, girls, moderate v. No moderate or severe SP	**RRR 1.51(1.29 - 1.76)**	-	-
					-	RRR 1.43(1.31 - 1.57)	Individual (age, physical activity, parity,) and environmental (family type, parental education, household income)
					-	RRR 1.47(1.34 - 1.61)	Individual (physical activity)
				SP, girls, severe v. No moderate or severe SP	**RRR 1.49(1.37 - 1.63)**	-	-
					-	RRR 1.49(1.32 - 1.68)	Individual (age, physical activity, parity,) and environmental (family type, parental education, household income)
					-	RRR 1.59(1.41 - 1.80)	Individual (physical activity)
					RRR 1.64(1.45 - 1.84)	-	-
Jung 2010	South Korea, School students	n=291(F60.4%), NRy (NR±NR)	Computer time: NA v. NA	LBP, female v. no LBP	p-value, NS	-	-
				LBP, male v. no LBP	**p-value, p=0.04**	-	-
			Sitting time : NA v. NA	LBP, female v. no LBP	p-value, NS	-	-
				LBP, male v. no LBP	p-value, NS	-	-
Keane 2017	Ireland, Republic of, nationally representative	n=NR(F58.5%), 9 -18y (NR±NR)	TST (TV, videos, gaming (not including moving or fitness games), computer or other for homework, emails, tweeting etc.): >2h/d v. <2h/d	Back ache v. No BP	-	OR 1.36(1.20 - 1.55)	Individual (Gender, Age Group, Physical Activity) and environmental (Social Class,

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Study	Country, Population	Sample	Exposure	Outcome	Unadjusted	Adjusted	Confounders
							Family Structure, TST Recommendations)
					OR 1.40(1.25 - 1.56)	-	-
Kedra 2019	Poland, School students	n=11619(F54.7%), 10-19y (NR±NR)	Sedentary position: >5h/d v. <5h/d	Back pain, in last year v. no back pain last yr	**OR calculated 2.40(2.15 - 2.67) p-value, p<0.05**	-	-
		n=11619(FNR%), 10-13y (NR±NR)		Back pain, in last year, 10-13yrs v. no back pain last yr	**OR calculated 2.01(1.71 - 2.37) p-value, p<0.05**	-	-
		n=11619(FNR%), 14-16y (NR±NR)		Back pain, in last year, 14-16yrs v. no back pain last yr	**OR calculated 1.63(1.35 - 1.99) p-value, p<0.05**	-	-
		n=11619(FNR%), 17-19y (NR±NR)		Back pain, in last year, 17-19yrs v. no back pain last yr	**OR calculated 2.35(1.83 - 3.02) p-value, p<0.05**	-	-
Khalil 2019	Iraq, School students	n=5000(FNR%), 9-14y (NR±NA)	Computer: >=6h/d v. 0-1h/d	Back pain, in last 1m v. No back pain, in last 1m	OR 2.82(0.55 - 14.40)	-	-
			Computer: 2-3h/d v. 0-1h/d		**OR 4.75(2.01 - 11.21)**	-	-
			Computer: 4-5h/d v. 0-1h/d		**OR 5.75(3.43 - 9.62)**	-	-
			TV: >=6h/d v. 0-1h/d		**OR 10.49(2.01 - 54.85)**	-	-
			TV: 2-3h/d v. 0-1h/d		**OR 2.60(1.23 - 5.50)**	-	-
			TV: 4-5h/d v. 0-1h/d		**OR 2.87(1.71 - 4.82)**	-	-
Kristjansdottir 2002	Iceland, nationally representative	n=2400(F49.0%), 11-12, 15-16y (NR±NR)	Computer, video watching: h/d v. Unclear	Back pain v. Unclear	Correlation r=0.082	-	(as above)
			TV: h/d v. Unclear		Correlation r=0.075	-	(as above)
Leininger 2017	USA, General population	n=143(F71.0%), 12-18y (15.6±1.7)	SB: m/d v. Unclear	LBP Disability, subacute or chronic v. Unclear	Correlation r=0.030	-	(as above)
				LBP intensity, subacute or chronic v. Unclear	Correlation r=-0.099	-	(as above)
				LBP QoL, subacute or chronic v. Unclear	Correlation r=0.00	-	(as above)
Lemes 2022[xiv]	Brazil, School students	n=NR(F55.4%), 10-17y (13.2±2.3)	Screen time + PA: active/high (>2h/d) SB v. active/low (<2h/d) SB	LBP, last week v. No LBP	-	OR 1.42(0.79 - 2.55)	Individual (age, sex, BMI, abdominal obesity, sleep quality) and environmental (SES)
					-	OR 1.48(0.83 - 2.65)	Individual (age, sex, BMI, abdominal obesity) and environmental (SES)
			Screen time + PA: inactive/high (>2h/d) SB v. active/low (<2h/d) SB		-	**OR 2.19(1.25 - 3.84)**	Individual (age, sex, BMI, abdominal obesity, sleep quality) and environmental (SES)
					-	**OR 2.40(1.38 - 4.18)**	Individual (age, sex, BMI, abdominal obesity) and environmental (SES)
			Screen time + PA: inactive/low (<2h/d) SB v. active/low (<2h/d) SB		-	OR 1.81(0.96 - 3.41)	Individual (age, sex, BMI, abdominal obesity, sleep quality) and environmental (SES)
					-	**OR 1.96(1.05 - 3.66)**	Individual (age, sex, BMI, abdominal obesity) and environmental (SES)
Lewandowski 2014	Poland, School students	n=3568(F46.0%), 13-19y (16.5±1.5)	Computer: mean time v. mean time	SP v. Unclear	p-value, p=0.555	-	-
					p-value, p=0.751	-	-
			TV: mean time v. mean time		**p-value, p=0.006**	-	-
					p-value, p=0.016	-	-
Mafanya 2011	South Africa, School students	n=NR(F46.4%), 14-17y (16.0±1.1)	Computer use at school : m or h/d v. no computer use, or not at school	NP v. No NP	OR 1.17(0.56 - 2.45)	-	-
			computer use elsewhere : h/d v. no computer use, or at school only		OR 2.30(0.07 - 4.94)	-	-
Martínez-Crespo 2009	Spain, School students (city)	n=849(F50.9%), 12-16y (13.7±1.2)	TV: >2h/d v. <=2h/d	LBP v. No LBP	**p-value, p<0.024**	-	-
Masiero 2021	Italy, School students	n=6281(F62.0%), 14-19y (16.9±1.9)	Screentime (tablet, PC, phone): >2h/d v. <2h/d	LBP, lifetime v. No LBP	OR calculated 1.15(0.99 - 1.33)	-	-
			Screentime (tablet, PC, phone): >5h/d v. <5h/d		**OR calculated 1.28(1.13 - 1.44)**	-	-
			Screentime (tablet, PC, phone): >7h/d v. <7h/d		**OR calculated 1.27(1.05 - 1.54)**	-	-
			Sitting: >5h/d v. <5h/d		OR calculated 1.12(0.89 - 1.42)	-	-

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Study	Population	Sample	Exposure	Outcome	Effect size		
			Sitting: >8h/d v. <8h/d		**OR calculated 1.26(1.12 - 1.42)**	-	-
Meziat-Filho 2015[vii]	Brazil, School students	n=1102(F53.3%), 14 - 20y (16.8±NR)	Computer: <2h/d v. NA	LBP, acute v. No LBP	Prevalence 0.27(0.21 - 0.33)	-	-
				LBP, chronic v. No LBP	Prevalence 0.16(0.11 - 0.20)	-	-
			Computer: >2h/d v. <2h/d	LBP, acute v. No LBP	OR calculated 1.12(0.80 - 1.57)	-	-
				LBP, chronic v. No LBP	OR calculated 1.26(0.84 - 1.90)	-	-
			Computer: >2h/d v. NA	LBP, acute v. No LBP	Prevalence 0.29(0.26 - 0.32)	-	-
				LBP, chronic v. No LBP	Prevalence 0.19(0.16 - 0.22)	-	-
			Gaming: <2h/d v. NA	LBP, acute v. No LBP	Prevalence 0.30(0.27 - 0.33)	-	-
				LBP, chronic v. No LBP	Prevalence 0.19(0.17 - 0.22)	-	-
			Gaming: >2h/d v. <2h/d	LBP, acute v. No LBP	OR calculated 0.84(0.61 - 1.15)	-	-
				LBP, chronic v. No LBP	OR calculated 0.77(0.52 - 1.13)	-	-
			Gaming: >2h/d v. NA	LBP, acute v. No LBP	Prevalence 0.26(0.20 - 0.31)	-	-
				LBP, chronic v. No LBP	Prevalence 0.15(0.11 - 0.20)	-	-
			TV: <2h/d v. NA	LBP, acute v. No LBP	Prevalence 0.26(0.22 - 0.34)	-	-
				LBP, chronic v. No LBP	Prevalence 0.20(0.15 - 0.24)	-	-
			TV: >2h/d v. <2h/d	LBP, acute v. No LBP	OR calculated 1.13(0.83 - 1.53)	-	-
				LBP, chronic v. No LBP	OR calculated 0.88(0.63 - 1.24)	-	-
			TV: >2h/d v. NA	LBP, acute v. No LBP	Prevalence 0.29(0.25 - 0.33)	-	-
				LBP, chronic v. No LBP	Prevalence 0.18(0.15 - 0.20)	-	-
Meziat-Filho 2017[vii]	Brazil, School students	n=1102(F53.3%), 14 - 20y (16.8±NR)	Computer: <2h/d v. NA	NP, acute v. No NP	Prevalence 0.32(0.25 - 0.38)	-	-
				NP, chronic v. No NP	Prevalence 0.15(0.10 - 0.19)	-	-
			Computer: =2h/d v. NA	NP, acute v. No NP	Prevalence 0.33(0.30 - 0.36)	-	-
				NP, chronic v. No NP	Prevalence 0.16(0.14 - 0.19)	-	-
			Computer: >=2h/d v. <2h/d	NP, acute v. No NP	OR calculated 1.07(0.78 - 1.48)	-	-
				NP, chronic v. No NP	OR calculated 1.14(0.75 - 1.73)	-	-
			Gaming: <2h/d v. NA	NP, acute v. No NP	Prevalence 0.34(0.30 - 0.37)	-	-
				NP, chronic v. No NP	Prevalence 0.17(0.14 - 0.19)	-	-
			Gaming: =2h/d v. NA	NP, acute v. No NP	Prevalence 0.31(0.25 - 0.37)	-	-
				NP, chronic v. No NP	Prevalence 0.14(0.09 - 0.18)	-	-
			Gaming: >=2h/d v. <2h/d	NP, acute v. No NP	OR calculated 0.89(0.65 - 1.21)	-	-
				NP, chronic v. No NP	OR calculated 0.77(0.51 - 1.16)	-	-
			TV: <2h/d v. NA	NP, acute v. No NP	Prevalence 0.26(0.21 - 0.31)	-	-
				NP, chronic v. No NP	Prevalence 0.19(0.14 - 0.24)	-	-
			TV: =>2h/d v. NA	NP, acute v. No NP	Prevalence 0.35(0.32 - 0.39)	-	-

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			TV: =2h/d v. NA	NP, chronic v. No NP	Prevalence 0.15(0.13 - 0.17)	-	-
			TV: >=2h/d v. <2h/d	NP, acute v. No NP	**OR calculated 1.58(1.17 - 2.14)**	-	-
				NP, chronic v. No NP	OR calculated 0.75(0.53 - 1.07)	-	-
Minghelli 2014[viii]	Portugal, School students	n=1000(F54.8%), 10 - 16y (12.2±1.5)	Computer &/or gaming: >10h/w v. <10h/w	LBP v. no LBP	OR calculated 0.91(0.63 - 1.31) p-value, p=0.603	-	-
			TV: >10h/w v. <10h/w		OR calculated 1.09(0.81 - 1.47) p-value, p=0.582	-	-
Minghelli 2016[viii]	Portugal, School students	n=1000(F54.8%), 10 - 16y (12.2±1.5)	Computer &/or gaming: 6-10h/w v. <5h/w		-	OR 1.00(0.68 - 1.47)	Individual (Gender, Age (Group))
			TV: 6-10h/w v. <5h/w		OR 0.91(0.63 - 1.31)	OR 1.13(0.83 - 1.54)	Individual (Gender, Age (Group))
					OR 1.09(0.81 - 1.47)	-	-
Minghelli 2020	Portugal, School students	n=Unclear(F52.3%), 10-17y (13.7±2.0)	Gaming (console): >10h/w v. <=10h/w	LBP, in last 12m v. No LBP in last 12m	OR 1.13(0.59 - 2.14)	-	-
		n=Unclear (F52.6%), 10-17y (13.7±2.0)		NP, in last 12m v. No NP in last 12m	OR 1.11(0.58 - 2.12)	-	-
		n=Unclear(F52.3%), 10-17y (13.7±2.0)	Mobile : >10h/w v. <=10h/w	LBP, in last 12m v. No LBP in last 12m	-	**OR 2.39(1.41 - 4.08)**	Individual (Unclear) and environmental (Unclear)
		n=Unclear (F52.6%), 10-17y (13.7±2.0)		NP, in last 12m v. No NP in last 12m	**OR 2.38(1.44 - 3.96)**	-	-
					-	**OR 2.48(1.29 - 4.75)**	Individual (Unclear) and environmental (Unclear)
		n=Unclear(F52.3%), 10-17y (13.7±2.0)	TV: >10h/w v. <=10h/w	LBP, in last 12m v. No LBP in last 12m	**OR 1.79(1.07 - 2.99)** OR 1.09(0.60 - 1.98)	-	-
		n=Unclear (F52.6%), 10-17y (13.7±2.0)		NP, in last 12m v. No NP in last 12m	OR 1.01(0.55 - 1.85)	-	-
Mohseni-Bandpei 2007	Iran, School students	n=5000(F52.3%), 11-14y (13.1±0.9)	Computer: h/d v. Unclear	NA v. Unclear	-	OR 0.86(0.58 - 1.28)	Individual (Unclear) and environmental (Unclear)
			Homework: h/d v. Unclear		-	OR 0.76(0.61 - 0.94)	(as above)
			TV: h/d v. Unclear		-	OR 0.66(0.51 - 0.86)	(as above)
Montgomery 2021	Denmark, School students	n=1348(F48.7%), 10.9-14.3y (12.5±0.6)	SB, weekdays outside school: >2h/d v. <2h/d	LBP, mod/severe, boys 11 v. No or mild LBP, boys 11	OR 0.82(0.17 - 4.00)	-	-
				LBP, mod/severe, boys 12 v. No or mild LBP, boys 12	OR 0.73(0.16 - 3.35)	-	-
				LBP, mod/severe, boys 13 v. No or mild LBP, boys 13	OR 0.74(0.04 - 14.38)	-	-
				LBP, mod/severe, girls 11 v. No or mild LBP, girls 11	OR 0.60(0.15 - 2.39)	-	-
				LBP, mod/severe, girls 12 v. No or mild LBP, girls 12	OR 0.55(0.21 - 1.44)	-	-
				LBP, mod/severe, girls 13 v. No or mild LBP, girls 13	OR 0.80(0.09 - 7.06)	-	-
				MBP, mod/severe, boys 11 v. No or mild MBP, boys 11	OR 2.09(0.26 - 16.86)	-	-
				MBP, mod/severe, boys 12 v. No or mild MBP, boys 12	OR 1.43(0.42 - 4.90)	-	-
				MBP, mod/severe, boys 13 v. No or mild MBP, boys 13	OR 1.63(0.09 - 30.67)	-	-
				MBP, mod/severe, girls 11 v. No or mild MBP, girls 11	OR 0.43(0.14 - 1.34)	-	-
				MBP, mod/severe, girls 12 v. No or mild MBP, girls 12	OR 0.53(0.22 - 1.31)	-	-
				MBP, mod/severe, girls 13 v. No or mild MBP, girls 13	OR 1.42(0.17 - 12.04)	-	-
				NP, mod/severe, boys 11 v. No or mild NP, boys 11	OR 1.18(0.25 - 5.53)	-	-
				NP, mod/severe, boys 12 v. No or mild NP, boys 12	OR 0.82(0.30 - 2.26)	-	-
				NP, mod/severe, boys 13 v. No or mild NP, boys 13	OR 2.45(0.13 - 45.62)	-	-
				NP, mod/severe, girls 11 v. No or mild NP, girls 11	OR 0.80(0.31 - 2.03)	-	-
				NP, mod/severe, girls 12 v. No or mild NP, girls 12	OR 1.91(0.56 - 6.51)	-	-

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	NP, mod/severe, girls 13 v. No or mild NP, girls 13	OR 0.68(0.13 - 3.50)	-	-
	SP, mod/severe, boys 11 v. No or mild SP, boys 11	OR 1.47(0.41 - 5.31)	-	-
	SP, mod/severe, boys 12 v. No or mild SP, boys 12	OR 1.16(0.46 - 2.93)	-	-
	SP, mod/severe, boys 13 v. No or mild SP, boys 13	OR 4.45(0.24 - 82.23)	-	-
	SP, mod/severe, girls 11 v. No or mild SP, girls 11	OR 0.55(0.25 - 1.21)	-	-
	SP, mod/severe, girls 12 v. No or mild SP, girls 12	OR 1.01(0.46 - 2.25)	-	-
	SP, mod/severe, girls 13 v. No or mild SP, girls 13	OR 0.62(0.16 - 2.33)	-	-
SB, weekdays outside school: >5h/d v. <5h/d	LBP, mod/severe, boys 11 v. No or mild LBP, boys 11	OR 0.88(0.23 - 3.39)	-	-
	LBP, mod/severe, boys 12 v. No or mild LBP, boys 12	OR 1.44(0.51 - 4.06)	-	-
	LBP, mod/severe, boys 13 v. No or mild LBP, boys 13	OR 1.25(0.32 - 4.85)	-	-
	LBP, mod/severe, girls 11 v. No or mild LBP, girls 11	OR 1.66(0.42 - 6.62)	-	-
	LBP, mod/severe, girls 12 v. No or mild LBP, girls 12	OR 1.80(0.86 - 3.77)	-	-
	LBP, mod/severe, girls 13 v. No or mild LBP, girls 13	OR 0.39(0.08 - 1.92)	-	-
	MBP, mod/severe, boys 11 v. No or mild MBP, boys 11	OR 1.20(0.35 - 4.09)	-	-
	MBP, mod/severe, boys 12 v. No or mild MBP, boys 12	OR 1.20(0.60 - 2.39)	-	-
	MBP, mod/severe, boys 13 v. No or mild MBP, boys 13	OR 1.85(0.71 - 4.86)	-	-
	MBP, mod/severe, girls 11 v. No or mild MBP, girls 11	OR 1.64(0.49 - 5.50)	-	-
	MBP, mod/severe, girls 12 v. No or mild MBP, girls 12	OR 1.42(0.69 - 2.91)	-	-
	MBP, mod/severe, girls 13 v. No or mild MBP, girls 13	OR 0.73(0.24 - 2.25)	-	-
	NP, mod/severe, boys 11 v. No or mild NP, boys 11	OR 1.20(0.39 - 3.66)	-	-
	NP, mod/severe, boys 12 v. No or mild NP, boys 12	OR 1.35(0.70 - 2.61)	-	-
	NP, mod/severe, boys 13 v. No or mild NP, boys 13	OR 1.55(0.67 - 3.57)	-	-
	NP, mod/severe, girls 11 v. No or mild NP, girls 11	OR 1.25(0.49 - 3.18)	-	-
	NP, mod/severe, girls 12 v. No or mild NP, girls 12	OR 1.28(0.64 - 2.53)	-	-
	NP, mod/severe, girls 13 v. No or mild NP, girls 13	OR 1.41(0.51 - 3.87)	-	-
	SP, mod/severe, boys 11 v. No or mild SP, boys 11	OR 1.32(0.55 - 3.17)	-	-
	SP, mod/severe, boys 12 v. No or mild SP, boys 12	OR 1.19(0.68 - 2.09)	-	-
	SP, mod/severe, boys 13 v. No or mild SP, boys 13	OR 1.96(0.96 - 4.00)	-	-
	SP, mod/severe, girls 11 v. No or mild SP, girls 11	OR 1.55(0.69 - 3.48)	-	-
	SP, mod/severe, girls 12 v. No or mild SP, girls 12	OR 1.43(0.83 - 2.47)	-	-
	SP, mod/severe, girls 13 v. No or mild SP, girls 13	OR 0.77(0.34 - 1.75)	-	-
SB, weekend day: >2h/d v. <2h/d	LBP, mod/severe, boys 11 v. No or mild LBP, boys 11	OR 0.69(0.14 - 3.41)	-	-
	LBP, mod/severe, boys 12 v. No or mild LBP, boys 12	OR 0.60(0.13 - 2.79)	-	-
	LBP, mod/severe, boys 13 v. No or mild LBP, boys 13	OR 0.34(0.04 - 3.20)	-	-

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	LBP, mod/severe, girls 11 v. No or mild LBP, girls 11	OR 1.92(0.24 - 15.58)	-	-
	LBP, mod/severe, girls 12 v. No or mild LBP, girls 12	OR 0.41(0.16 - 1.02)	-	-
	LBP, mod/severe, girls 13 v. No or mild LBP, girls 13	OR 0.36(0.07 - 1.94)	-	-
	MBP, mod/severe, boys 11 v. No or mild MBP, boys 11	OR 0.44(0.11 - 1.74)	-	-
	MBP, mod/severe, boys 12 v. No or mild MBP, boys 12	OR 1.88(0.43 - 8.21)	-	-
	MBP, mod/severe, boys 13 v. No or mild MBP, boys 13	OR 0.83(0.09 - 7.30)	-	-
	MBP, mod/severe, girls 11 v. No or mild MBP, girls 11	OR 0.47(0.14 - 1.60)	-	-
	MBP, mod/severe, girls 12 v. No or mild MBP, girls 12	OR 0.79(0.29 - 2.18)	-	-
	MBP, mod/severe, girls 13 v. No or mild MBP, girls 13	OR 0.66(0.13 - 3.39)	-	-
	NP, mod/severe, boys 11 v. No or mild NP, boys 11	OR 0.58(0.15 - 2.22)	-	-
	NP, mod/severe, boys 12 v. No or mild NP, boys 12	OR 1.27(0.37 - 4.40)	-	-
	NP, mod/severe, boys 13 v. No or mild NP, boys 13	OR 3.40(0.19 - 61.24)	-	-
	NP, mod/severe, girls 11 v. No or mild NP, girls 11	OR 1.00(0.35 - 2.87)	-	-
	NP, mod/severe, girls 12 v. No or mild NP, girls 12	OR 1.26(0.42 - 3.76)	-	-
	NP, mod/severe, girls 13 v. No or mild NP, girls 13	OR 4.65(0.26 - 82.44)	-	-
	SP, mod/severe, boys 11 v. No or mild SP, boys 11	OR 0.59(0.20 - 1.78)	-	-
	SP, mod/severe, boys 12 v. No or mild SP, boys 12	OR 1.19(0.43 - 3.24)	-	-
	SP, mod/severe, boys 13 v. No or mild SP, boys 13	OR 2.38(0.28 - 20.35)	-	-
	SP, mod/severe, girls 11 v. No or mild SP, girls 11	OR 0.82(0.34 - 2.01)	-	-
	SP, mod/severe, girls 12 v. No or mild SP, girls 12	OR 0.93(0.42 - 2.08)	-	-
	SP, mod/severe, girls 13 v. No or mild SP, girls 13	OR 0.73(0.20 - 2.66)	-	-
SB, weekend day: >5h/d v. <5h/d	LBP, mod/severe, boys 11 v. No or mild LBP, boys 11	OR 0.55(0.16 - 1.92)	-	-
	LBP, mod/severe, boys 12 v. No or mild LBP, boys 12	OR 1.33(0.48 - 3.64)	-	-
	LBP, mod/severe, boys 13 v. No or mild LBP, boys 13	OR 0.54(0.14 - 2.10)	-	-
	LBP, mod/severe, girls 11 v. No or mild LBP, girls 11	OR 1.03(0.29 - 3.66)	-	-
	LBP, mod/severe, girls 12 v. No or mild LBP, girls 12	OR 0.78(0.37 - 1.61)	-	-
	LBP, mod/severe, girls 13 v. No or mild LBP, girls 13	OR 0.57(0.14 - 2.34)	-	-
	MBP, mod/severe, boys 11 v. No or mild MBP, boys 11	OR 0.49(0.14 - 1.65)	-	-
	MBP, mod/severe, boys 12 v. No or mild MBP, boys 12	OR 1.14(0.60 - 2.17)	-	-
	MBP, mod/severe, boys 13 v. No or mild MBP, boys 13	OR 2.15(0.73 - 6.29)	-	-
	MBP, mod/severe, girls 11 v. No or mild MBP, girls 11	OR 1.23(0.42 - 3.63)	-	-
	MBP, mod/severe, girls 12 v. No or mild MBP, girls 12	OR 1.39(0.71 - 2.72)	-	-
	MBP, mod/severe, girls 13 v. No or mild MBP, girls 13	OR 0.42(0.13 - 1.39)	-	-
	NP, mod/severe, boys 11 v. No or mild NP, boys 11	OR 0.66(0.23 - 1.90)	-	-

Study	Country, Population	Sample	Exposure	Outcome	OR (unadjusted)	OR (adjusted)	Adjustment factors
				NP, mod/severe, boys 12 v. No or mild NP, boys 12	OR 1.07(0.57 - 2.01)	-	-
				NP, mod/severe, boys 13 v. No or mild NP, boys 13	OR 1.03(0.44 - 2.39)	-	-
				NP, mod/severe, girls 11 v. No or mild NP, girls 11	OR 1.56(0.72 - 3.38)	-	-
				NP, mod/severe, girls 12 v. No or mild NP, girls 12	OR 1.72(0.91 - 3.25)	-	-
				NP, mod/severe, girls 13 v. No or mild NP, girls 13	OR 0.87(0.31 - 2.44)	-	-
				SP, mod/severe, boys 11 v. No or mild SP, boys 11	OR 0.59(0.25 - 1.36)	-	-
				SP, mod/severe, boys 12 v. No or mild SP, boys 12	OR 1.10(0.65 - 1.86)	-	-
				SP, mod/severe, boys 13 v. No or mild SP, boys 13	OR 1.45(0.70 - 3.01)	-	-
				SP, mod/severe, girls 11 v. No or mild SP, girls 11	OR 1.31(0.65 - 2.61)	-	-
				SP, mod/severe, girls 12 v. No or mild SP, girls 12	OR 1.22(0.73 - 2.02)	-	-
				SP, mod/severe, girls 13 v. No or mild SP, girls 13	OR 0.72(0.32 - 1.61)	-	-
Munoz-Serrano 2021	Spain, School students	n=1582(F52.0%), 10-15y (NR±NR)	Computer: >=2h/d v. <2h/d	LBP, 3m v. No LBP	OR calculated 0.41(0.29 - 0.57)	-	-
					OR calculated 0.78(0.56 - 1.10)	-	-
			Mobile phone: >=2h/d v. <2h/d		OR calculated 0.76(0.59 - 0.98)	-	-
					OR calculated 0.98(0.77 - 1.25)	-	-
			Tablet: >=2h/d v. <2h/d		OR calculated 0.65(0.44 - 0.96)	-	-
					OR calculated 0.92(0.70 - 1.21)	-	-
			TV : >=2h/d v. <2h/d		OR calculated 0.69(0.52 - 0.90)	-	-
			TV: >=2h/d v. <2h/d		OR calculated 0.93(0.73 - 1.19)	-	-
			Videogame: >=2h/d v. <2h/d		OR calculated 0.76(0.52 - 1.11)	-	-
					OR calculated 1.03(0.81 - 1.31)	-	-
Myrtveit 2014	Norway, nationally representative	n=19430(F53.7%), 17-19y (17.8±NR)	Chatting (computer screen): >2h/d v. <2h/d	NSP, females, frequent v. No NSP, females, or infrequent	**OR 1.25(1.10 - 1.42)**	-	-
				NSP, males, frequent v. No NSP, males, or infrequent	OR 1.30(1.07 - 1.59)	-	-
			Chatting: >2h/d v. <2h/d	NSP, females, frequent v. No NSP, females, or infrequent	-	OR 1.06(0.93 - 1.21)	Individual (Age, School Situation, Depression) and environmental (Family Economy)
				NSP, males, frequent v. No NSP, males, or infrequent	-	OR 1.02(0.83 - 1.26)	(as above)
			Computer &/or gaming: >2h/d v. <2h/d	NSP, females, frequent v. No NSP, females, or infrequent	-	**OR 1.62(1.22 - 2.13)**	(as above)
					OR 1.89(1.45 - 2.46)	-	-
				NSP, males, frequent v. No NSP, males, or infrequent	-	**OR 1.31(1.06 - 1.64)**	Individual (Age, School Situation, Depression) and environmental (Family Economy)
					OR 1.51(1.22 - 1.86)	-	-
			E-mailing : >2h/d v. <2h/d	NSP, females, frequent v. No NSP, females, or infrequent	-	OR 1.24(0.90 - 1.71)	Individual (Age, School Situation, Depression) and environmental (Family Economy)
					OR 1.54(1.14 - 2.08)	-	-
				NSP, males, frequent v. No NSP, males, or infrequent	-	**OR 1.95(1.30 - 2.92)**	Individual (Age, School Situation, Depression) and environmental (Family Economy)
					OR 3.22(2.24 - 4.63)	-	-
			Other, on computer/screen: >2h/d v. <2h/d	NSP, females, frequent v. No NSP, females, or infrequent	-	OR 0.97(0.84 - 1.11)	Individual (Age, School Situation, Depression) and environmental (Family Economy)

Study	Country, population	n (F%), age	Exposure	Outcome	Effect (1)	Effect (2)	Adjustment
				NSP, males, frequent v. No NSP, males, or infrequent	OR 1.13(0.99 - 1.29)	-	Individual (Age, School Situation, Depression) and environmental (Family Economy)
					-	OR 1.19(0.97 - 1.46)	
			TV: >2h/d v. <2h/d	NSP, females, frequent v. No NSP, females, or infrequent	OR 1.38(1.13 - 1.68)	-	Individual (Age, School Situation, Depression) and environmental (Family Economy)
					-	OR 1.27(0.83 - 1.94)	
				NSP, males, frequent v. No NSP, males, or infrequent	**OR 1.54(1.03 - 2.31)**	-	Individual (Age, School Situation, Depression) and environmental (Family Economy)
					-	OR 0.96(0.74 - 1.23)	
					OR 1.15(0.91 - 1.47)	-	
Namwongsa 2018	Thailand, University undergraduate students	n=799(F71.4%), 17-26y (18.8±0.8)	Mobile phone: >1h/use v. <1h/d	NP (neck disorder) v. No NP	OR 0.87(0.62 - 1.21)	-	-
			Mobile phone: >6h/d v. <6h/d		OR 1.14(0.82 - 1.60)	-	-
			Studying (unclear screen or no-screen): >6h/d v. <6h/d		OR 1.26(0.86 - 1.86)	-	-
Nawrocka 2014	Poland, School students (music school)	n=NR(F61.3%), 10-18y (14.0±2.4)	Playing musical instrument: m/d v. NA	LBP v. No LBP	OR 1.00(0.99 - 1.00)	-	-
				MBP v. No MBP	OR 1.00(0.99 - 1.00)	-	-
				NP v. No NP	OR 1.00(0.99 - 1.01)	-	-
Nazik 2022	Turkey, School students	n=313(F53.5%), 14-18y (15.9±1.1)	Sitting : >181m/d v. <60m/d	LBP, lifetime v. No LBP	**OR 1.67(1.13 - 2.46)**	-	-
			Sitting : 61-180m/d v. <60m/d		OR 1.30(0.88 - 1.92)	-	-
			Tablet : >121m/d v. <30m/d		**OR 1.93(1.21 - 3.08)**	-	-
			Tablet : 31-60m/d v. <30m/d		OR 0.94(0.61 - 1.45)	-	-
			Tablet : 61-120m/d v. <30m/d		OR 1.07(0.67 - 1.70)	-	-
Noll 2012[ix]	Brazil, School students (city)	n=859(F47.2%), 11 -16y (NR±NR)	Computer: >2-3h/d v. <=2h/d	BP v. No BP	-	PR 1.02(0.96 - 1.08)	Individual (Unclear: Sex, Age, Sleep) and environmental (Unclear: PA, Parental Back Pain)
			Computer: >3-6h/d v. <=2h/d		-	PR 1.01(0.93 - 1.09)	(as above)
			Computer: >6h/d v. <=2h/d	BP v. No BP	-	PR 0.95(0.86 - 1.05)	(as above)
			TV : >2-3h/d v. <=2h/d		-	PR 1.01(0.93 - 1.09)	(as above)
			TV: >3-6h/d v. <=2h/d		-	PR 1.05(0.97 - 1.15)	(as above)
			TV: >6-8h/d v. <=2h/d		-	PR 1.09(0.99 - 1.19)	(as above)
			TV: >8h/d v. <=2h/d		-	**PR 1.10(1.01 - 1.22)**	(as above)
Noll 2016a[x]	Brazil, School students	n=320(F31.1%), 14-20y (16.4±1.4)	Computer: >2h/d v. <1h/d	Back pain v. No back pain	-	PR 1.09(0.99 - 1.21)	Individual (Sex, Age)
			TV: >4h/d v. <1h/d		-	PR 1.05(0.86 - 1.28)	(as above)
			TV: 2-3h/d v. <1h/d		-	PR 1.01(0.91 - 1.11)	(as above)
Noll 2016b[ix]	Brazil, School students	n=1720(F46.4%), 11-16y (NR±NR)	Computer: >8h/d v. <3h/d		OR calculated 1.20(0.83 - 1.74) PR 1.03(0.97 - 1.09)	-	-
			Computer: 4-7h/d v. <3h/d		OR calculated 1.13(0.87 - 1.45) PR 1.01(0.96 - 1.06)	-	-
			TV: >8h/d v. <3h/d		**OR calculated 1.94(1.27 - 2.97)** **PR 1.12(1.06 - 1.18)**	-	-
			TV: 4-7h/d v. <3h/d		**OR calculated 1.54(1.22 - 1.93)** PR 1.05(1.01 - 1.09)	-	-
Noll 2016c[ix]	Brazil, School students (city)	n=1720(F46.4%), 11 -16y (NR±NR)	Computer: >2-3h/d v. <=2h/d	BP v. No BP	-	PR 1.00(0.95 - 1.06)	Individual (Unclear: Sex, Age, Sleep) and environmental (Unclear: PA, Parental Back Pain)
			Computer: >4-5h/d v. <=2h/d		-	PR 1.05(0.99 - 1.13)	(as above)
			Computer: >6h/d v. <=2h/d		-	PR 1.03(0.96 - 1.12)	(as above)
			TV: >4-7h/d v. <=3h/d		-	PR 1.00(0.95 - 1.05)	(as above)
			TV: >8h/d v. <=3h/d		-	PR 0.99(0.91 - 1.07)	(as above)
Noll 2017[x]	Brazil, School students	n=320(F42.3%), 14-20y (16.5±1.3)	Computer: >2h/d v. <1h/d	Back pain, high frequency v. No back pain or low frequency	PR 1.02(0.87 - 1.19)	-	-
				Back pain, high intensity v. No back pain or low intensity	PR 1.10(0.43 - 2.82)	-	-
					-	**PR 1.15(1.01 - 1.33)**	Individual (Lumbar Strength?) and environmental (Physical Exercise Frequency Per Week, Time Using Computer, Time

Author/year	Setting	Sample	Exposure	Outcome	Result 1	Result 2	Adjustment
					PR 1.16(1.01 - 1.34)	-	Sleeping, Sitting Posture to Write, Sitting Posture to Use Computer?)
					PR 2.41(0.97 - 5.98)	-	-
			Reading/studying in bed: h/d v. NR	Back pain, high frequency v. No back pain or low frequency	-	PR 1.19(1.01 - 1.40)	Individual (Lumbar Strength?) and environmental (Physical Exercise Frequency Per Week, Time Using Computer, Time Sleeping, Sitting Posture to Write, Sitting Posture to Use Computer?)
					PR 1.17(0.96 - 1.42)	-	-
					PR 29.06(8.95 - 94.42)	-	-
				Back pain, high intensity v. No back pain or low intensity	PR 1.05(0.87 - 1.26)	-	-
					PR 1.88(0.64 - 5.52)	-	-
			TV: >2h/d v. <1h/d	Back pain, high frequency v. No back pain or low frequency	PR 1.05(0.89 - 1.23)	-	-
					PR 1.32(0.51 - 3.40)	-	-
				Back pain, high intensity v. No back pain or low intensity	PR 0.95(0.40 - 2.25)	-	-
					PR 0.99(0.86 - 1.15)	-	-
O'Sullivan 2011[ii]	Australia, Birth cohort, Western Australian Pregnancy Cohort RAINE	n=1608(F49.9%), 14y (14.1±0.2)	Computer, gaming: h/w v. Unclear	BP, in last mth, made worse by sitting v. BP in last mth, not made worse by sitting	OR 0.92(0.75 - 1.13)	-	-
				BP, in last mth, made worse by sitting v. No BP in last mth	-	OR 0.93(0.75 - 1.15)	Individual (Unclear) and environmental (Unclear) (as above)
					-	OR 0.98(0.82 - 1.19)	
					OR 1.01(0.84 - 1.20)	-	
			TV: h/w v. Unclear	BP, in last mth, made worse by sitting v. BP in last mth, not made worse by sitting	-	OR 0.94(0.74 - 1.20)	Individual (Unclear) and environmental (Unclear)
					OR 0.98(0.78 - 1.23)	-	
				BP, in last mth, made worse by sitting v. No BP in last mth	-	OR 0.98(0.80 - 1.21)	Individual (Unclear) and environmental (Unclear)
					OR 1.06(0.87 - 1.28)	-	-
Onofrio 2012	Brazil, School students	n=1350(F54.0%), 13-19y (15.9±1.2)	Computer : >5h/d v. <2h/d	LBP, in last mth v. No LBP, in last mth	PR 1.20(0.80 - 1.80)	-	-
			Computer: 2-4.9h/d v. <2h/d		PR 1.20(0.90 - 1.80)	-	-
			Inactive commute: h/d v. Unclear		PR 0.70(0.50 - 1.00)	-	-
			TV: >5h/d v. <2h/d		PR 0.70(0.50 - 1.20)	-	-
			TV: 2-4.9h/d v. <2h/d		PR 0.90(0.70 - 1.20)	-	-
Palm 2007	Sweden, School students	n=3852(F55.7%), 16-18y (NR±NR)	Computer: >14h/w v. <=14h/w	NSP, female v. No NSP, female	OR calculated 1.20(0.96 - 1.50)	-	-
				NSP, male v. No NSP, male	OR calculated 1.47(0.94 - 2.29)	-	-
			Computer: >56h/w v. <=56h/w	NSP, female v. No NSP, female	OR calculated 1.51(1.06 - 2.14)	-	-
				NSP, male v. No NSP, male	OR calculated 1.35(0.94 - 1.95)	-	-
			Computer: >56h/w v. <14h/w	NSP, female v. No NSP, female	PR 1.33(1.08 - 1.64)	-	-
				NSP, male v. No NSP, male	PR 1.59(1.03 - 2.47)	-	-
			Computer: 14-56h/w v. <14h/w	NSP, female v. No NSP, female	PR 1.08(0.94 - 1.25)	-	-
				NSP, male v. No NSP, male	PR 1.32(0.89 - 1.94)	-	-
Paranjape 2018	India, School students	n=650(F45.6%), 12-15y (13.0±NR)	Gaming : h/d v. NR	LBP v. No LBP	OR 0.81(0.52 - 1.26)	-	-
			TV: h/d v. NR		OR 0.09(0.03 - 0.28)	-	-
Picavet 2016[vi]	Netherlands, Birth cohort, PIAMA birth cohort	n=3337(F49.7%), 11, 14y (14.8±0.3)	TV, comp, gaming : >2h/d v. <2h/d	BP (back complaints) v. No back complaints	-	OR 1.22(0.91 - 1.64)	Individual (Sex, Age)
				UQMP (Upper extremity complaints) v. No upper extremity complaints	-	OR 1.00(0.73 - 1.36)	(as above)
Prista 2004	Mozambique, School students	n=240(F53.9%), 11-16y (13.0±NR)	TV: <1h/d v. NA	LBP v. No LBP	p-value, p=0.52	-	-
		n=240(F76.4%), 13-14y (NR±NR)	TV: >1h/d v. <1h/d	LBP v. NA	OR calculated 1.52(0.50 - 4.65)	-	-
		n=240(F53.9%), 11-16y (13.0±NR)		LBP v. no LBP	OR calculated 0.42(0.18 - 1.00)	-	-

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Study	Population	Sample	Exposure	Outcome			Adjustment
Rezapur-Shahkolai 2021[iv]	Iran, School students	n=693(F54.1%), 7-12y (9.7±1.6)	TV: >3h/d v. <1h/d	LBP, 1m v. No LBP	**OR 2.62(1.46 - 4.68)**	-	-
			TV: 1-3h/d v. <1h/d		OR 0.85(0.50 - 1.44)	-	-
Roman-Juan 2022	Europe (27 countries and regions), nationally representative	n=801648(F27.0%), 11,13,15y (13.7±1.7)	Screen time: >2h/d v. <2h/d	Backache, chronic (weekly or more frequent pain over last 6mths) v. No BP, not chronic BP	-	β 0.13(0.08 - 0.18)	Individual (Time (2002, 2006, 2010, 2014))
Rossi 2016	Finland, nationally representative	n=3963(F52.8%), 14-16y (15.5±1.0)	TST (TV, computer, gaming, phone, tablet): OR calculated per additional hour of screen time v. NR	LBP, females (more than once per month, last 3mths) v. LBP, <1/w	-	**OR 1.06(1.01 - 1.10)**	Individual (Age, BMI, Chronic Disease, Smoking, School Attainment Level)
				LBP, females, frequent (at least once per week) v. LBP, <1/w	-	OR 1.03(0.99 - 1.09)	(as above)
				LBP, males (more than once per month, last 3mths) v. LBP, <1/m	-	**OR 1.07(1.01 - 1.12)**	(as above)
				LBP, males, frequent (at least once per week) v. LBP, <1/m	-	OR 1.04(0.99 - 1.10)	(as above)
				NSP, females (more than once per month, last 3mths) v. NSP, <1/w	-	OR 1.03(0.98 - 1.07)	(as above)
				NSP, females, frequent (at least once per week) v. NSP, <1/w	-	OR 1.02(0.98 - 1.06)	(as above)
				NSP, males (more than once per month, last 3mths) v. NSP, <1/m	-	**OR 1.05(1.00 - 1.10)**	(as above)
				NSP, males, frequent (at least once per week) v. NSP, <1/m	-	OR 1.03(0.98 - 1.09)	(as above)
Santos 2021	Brazil, School students	n=1325(F50.9%), 6-12y (8.85 (pain), 8(no pain)±1.83(pain), 1.76(no pain))	Cell phone: >3h/d v. <3h/d	LBP v. No LBP	OR 0.60(0.51 - 0.70)	-	-
			TV: >3h/d v. <3h/d		-	**OR 7.98(1.96 - 32.52)**	Individual (Age, height, MSK pain elsewhere, TV, cell phone) and environmental (Income)
					OR 0.55(0.47 - 0.65)	-	-
Saueressig 2015	Brazil, School students	n=600(F61.5%), 14-19y (15.4±1.6)	Computer: >3h/d v. <3h/d	Back pain (thoracic and lumbar pain) v. NR	OR 0.78(0.48 - 1.29)	-	-
				NSP (cervical and shoulder girdle pain) v. NR	OR 0.81(0.48 - 1.35)	-	-
			Gaming : >1h/d v. <1h/d	Back pain (thoracic and lumbar pain) v. NR	OR 0.99(0.60 - 1.65)	-	-
				NSP (cervical and shoulder girdle pain) v. NR	OR 1.13(0.67 - 1.92)	-	-
Schwertner 2019	Brazil, School students	n=1100(F73.9%), 15-18y (16.0±0.8)	Computer: >2h/d v. <2h/d	LBP, ever v. No LBP, ever	Calculated mean difference 98.90(-0.83 - 198.63) p-value, p=0.065	-	-
				LBP, in last 3m v. No LBP, in last 3m	Calculated mean difference 51.20(-72.16 - 174.56) p-value, p=0.717	-	-
				LBP, present now v. No LBP, present now	Calculated mean difference 17.92(-74.17 - 110.01) p-value, p=0.717	-	-
			TV: >2h/d v. <2h/d	LBP, ever v. No LBP, ever	Calculated mean difference 14.20(-21.70 - 50.10) p-value, p=0.101	-	-
				LBP, in last 3m v. No LBP, in last 3m	Calculated mean difference- 6.90(-49.44 - 35.64) p-value, p=0.612	-	-
				LBP, present now v. No LBP, present now	Calculated mean difference- 11.00(-43.91 - 21.91) p-value, p=0.510	-	-
Shan 2013[xi]	China, School students	n=3600(F51.6%), 15-19y (NR±NR)	Computer : >1.5h/d v. <1.5h/d	LBP (often, always) v. No LBP (occasionally, almost never)	OR 1.15(0.99 - 1.34)	-	-
				NSP (often, always) v. No NSP (occasionally, almost never)	-	**OR 1.24(1.06 - 1.45)**	Individual (Gender, Grade, Soreness After Exercise, Pc Using Habits, Tablet Use, Sitting Time After School and Academic Stress)

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Study	Location, population	Sample	Exposure	Outcome	OR (crude)	OR (adjusted)	Adjusted for
					OR 1.22(1.05 - 1.41)	-	-
			Computer: >1.5h/d v. <0.5h/d	LBP (often, always) v. No LBP (occasionally, almost never)	OR 1.26(0.99 - 1.59)	-	-
				NSP (often, always) v. No NSP (occasionally, almost never)	OR 1.16(0.92 - 1.45)	-	-
			Computer: 0.5-1h/d v. <0.5h/d	LBP (often, always) v. No LBP (occasionally, almost never)	OR 0.89(0.73 - 1.09)	-	-
				NSP (often, always) v. No NSP (occasionally, almost never)	OR 0.89(0.74 - 1.08)	-	-
			Computer: 1-1.5h/d v. <0.5h/d	LBP (often, always) v. No LBP (occasionally, almost never)	OR 1.19(0.96 - 1.46)	-	-
				NSP (often, always) v. No NSP (occasionally, almost never)	OR 1.07(0.87 - 1.31)	-	-
			Continued sitting: >3h/d v. <3h/d	LBP (often, always) v. No LBP (occasionally, almost never)	**OR 1.44(1.21 - 1.70)**	**OR 1.25(1.04 - 1.49)**	Individual (Gender, Grade, Soreness After Exercise, Pc Using Habits, Tablet Use, Sitting Time After School and Academic Stress)
				NSP (often, always) v. No NSP (occasionally, almost never)	**OR 2.04(1.73 - 2.41)**	**OR 1.85(1.56 - 2.20)**	Individual (Gender, Grade, Soreness After Exercise, Pc Using Habits, Tablet Use, Sitting Time After School and Academic Stress)
			Mobile phone: >2h/d v. <1h/d	LBP (often, always) v. No LBP (occasionally, almost never)	**OR 1.84(1.46 - 2.32)**	-	-
				NSP (often, always) v. No NSP (occasionally, almost never)	**OR 1.49(1.20 - 1.86)**	-	-
			Mobile phone: 1-1.5h/d v. <1h/d	LBP (often, always) v. No LBP (occasionally, almost never)	**OR 1.44(1.18 - 1.77)**	-	-
				NSP (often, always) v. No NSP (occasionally, almost never)	OR 1.17(0.97 - 1.42)	-	-
			Mobile phone: 1.5-2h/d v. <1h/d	LBP (often, always) v. No LBP (occasionally, almost never)	OR 1.22(0.93 - 1.60)	-	-
				NSP (often, always) v. No NSP (occasionally, almost never)	OR 0.90(0.69 - 1.16)	-	-
			Tablet: >2h/d v. <1h/d	LBP (often, always) v. No LBP (occasionally, almost never)	OR 1.83(0.79 - 4.25)	-	-
				NSP (often, always) v. No NSP (occasionally, almost never)	OR 0.67(0.67 - 2.96)	-	-
			Tablet: 1-1.5h/d v. <1h/d	LBP (often, always) v. No LBP (occasionally, almost never)	OR 1.75(0.80 - 3.83)	-	-
				NSP (often, always) v. No NSP (occasionally, almost never)	OR 0.56(0.56 - 2.20)	-	-
			Tablet: 1.5-2h/d v. <1h/d	LBP (often, always) v. No LBP (occasionally, almost never)	OR 1.38(0.64 - 2.98)	-	-
				NSP (often, always) v. No NSP (occasionally, almost never)	OR 0.48(0.48 - 1.83)	-	-
Shan 2014[xi]	China, School students	n=3600(F52.0%), 15-19y (NR±NR)	Computer: >1.5h/d v. <1.5h/d	NSP v. No NSP	**OR 1.22(1.05 - 1.42)**	OR 1.24(1.05 - 1.46)	Individual (Sex) and environmental (Family Hx NSP)
			Sitting after class : >3h/d v. <3h/d	NSP v. No NSP	**OR 2.04(1.73 - 2.42)**	OR 1.89(1.57 - 2.26)	Individual (Sex) and environmental (Family Hx NSP) (as above)
			Sitting total in 24hrs : >10h/d v. <10h/d		**OR 1.49(1.27 - 1.75)**	ORNR(NR - NR)	-
Shehab 2005	Kuwait, School students	n=NR(F50.3%), 10-18y (14.4±2.5)	Gaming &/or internet : time/week v. NR	LBP, females v. No LBP, females	p-value, NS	-	-
				LBP, males v. No LBP, males	p-value, p=0.15	-	-
			Phone, talking : time/week v. NR		p-value, p=0.15	-	-
			Phone, talking: time/week v. NR	LBP, females v. No LBP, females	p-value, NS	-	-
			Reading &/or listening to music: time/week v. NR		p-value, NS	-	-
				LBP, males v. No LBP, males	p-value, p=0.15	-	-
			Sitting with family, painting: time/week v. NR	LBP, females v. No LBP, females	p-value, NS	-	-
				LBP, males v. No LBP, males	p-value, p=0.15	-	-

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Study	Setting	Sample	Exposure	Outcome	Result	Result	Adjustment
			TV: time/week v. NR	LBP, females v. No LBP, females	p-value, NS	-	-
				LBP, males v. No LBP, males	p-value, p=0.15	-	-
Silva 2016	Brazil, School students	n=1020(F52.2%), 14-19y (16.5±1.3)	Computer &/or gaming: >4h/d v. <4h/d	NP (Cervical region) v. No NP	-	OR 1.61(1.13 - 2.28)	Individual (Sex, TST, Paid Job, Nutritional Status)
					OR 1.45(1.04 - 2.01)	-	-
				TLP (Thoracolumbar column) v. No TLP	-	OR 1.33(1.00 - 1.75)	Individual (Sex, TST, Paid Job, Nutritional Status)
			Computer: >3h/d v. <3h/d	NP (Cervical region) v. No NP	OR 1.65(1.28 - 2.12)	-	-
					OR 1.42(1.02 - 1.96)	-	-
				TLP (Thoracolumbar column) v. No TLP	OR 1.17(0.91 - 1.51)	-	-
			Gaming : >1h/d v. <1h/d		OR 0.89(0.69 - 1.15)	-	-
			Gaming: >1h/d v. <1h/d	NP (Cervical region) v. No NP	OR 1.04(0.75 - 1.43)	-	-
Silva 2017[xii]	Brazil, School students	n=1330(F51.8%), 13-19y (15.6±1.8)	Computer: <1h/d v. 0h/d	LBP, in last wk v. No LBP, in last wk	-	OR 2.43(1.03 - 5.75)	Individual (Gender, Age, Body Mass Index (BMI), Sleeping Hours, Time Spent in Moderate Pa, Time Spent in Vigorous Pa, Watching Tv/DVD's, Playing, Using Mo- Bile Phones and Using Computers)
					OR 2.34(1.06 - 5.14)	-	-
				MBP, in last wk v. No MBP, in last wk	OR 0.97(0.46 - 2.03)	-	-
				NP, in last wk v. No NP, in last wk	OR 1.59(0.74 - 3.44)	-	-
			Computer: >4h/d v. 0h/d	LBP, in last wk v. No LBP, in last wk	-	OR 2.14(0.86 - 5.58)	Individual (Gender, Age, Body Mass Index (BMI), Sleeping Hours, Time Spent in Moderate Pa, Time Spent in Vigorous Pa, Watching Tv/DVD's, Playing, Using Mo- Bile Phones and Using Computers)
					OR 3.02(1.31 - 6.97)	-	-
				MBP, in last wk v. No MBP, in last wk	OR 1.54(0.70 - 3.42)	-	-
				NP, in last wk v. No NP, in last wk	OR 2.16(0.95 - 4.93)	-	-
			Computer: 2-3h/d v. 0h/d	LBP, in last wk v. No LBP, in last wk	-	OR 2.43(1.04 - 6.01)	Individual (Gender, Age, Body Mass Index (BMI), Sleeping Hours, Time Spent in Moderate Pa, Time Spent in Vigorous Pa, Watching Tv/DVD's, Playing, Using Mo- Bile Phones and Using Computers)
					OR 2.33(1.05 - 5.19)	-	-
				MBP, in last wk v. No MBP, in last wk	OR 1.20(0.57 - 2.55)	-	-
				NP, in last wk v. No NP, in last wk	OR 2.13(0.98 - 4.61)	-	-
			Mobile phone: <1h/d v. 0h/d	LBP, in last wk v. No LBP, in last wk	-	OR 0.75(0.37 - 1.52)	Individual (Gender, Age, Body Mass Index (BMI), Sleeping Hours, Time Spent in Moderate Pa, Time Spent in Vigorous Pa, Watching Tv/DVD's, Playing, Using Mo- Bile Phones and Using Computers)
					OR 1.25(0.66 - 2.36)	-	-
				MBP, in last wk v. No MBP, in last wk	-	OR 0.73(0.34 - 1.57)	Individual (Gender, Age, Body Mass Index (BMI), Sleeping Hours, Time Spent in Moderate Pa, Time Spent in Vigorous Pa, Watching Tv/DVD's, Playing, Using Mo- Bile Phones and Using Computers)
					OR 1.08(0.52 - 2.24)	-	-
				NP, in last wk v. No NP, in last wk	OR 1.19(0.62 - 2.29)	-	-
			Mobile phone: >5h/d v. 0h/d	LBP, in last wk v. No LBP, in last wk	-	OR 1.45(0.64 - 3.25)	Individual (Gender, Age, Body Mass Index (BMI), Sleeping Hours, Time Spent in Moderate Pa, Time Spent in Vigorous Pa, Watching Tv/DVD's, Playing, Using Mo- Bile Phones and Using Computers)
					OR 3.20(1.58 - 6.45)	-	-

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Study	Setting	Sample	Exposure	Outcome	OR	OR	Confounders
				MBP, in last wk v. No MBP, in last wk	-	OR 1.38(0.58 - 3.26)	Individual (Gender, Age, Body Mass Index (BMI), Sleeping Hours, Time Spent in Moderate Pa, Time Spent in Vigorous Pa, Watching Tv/DVD's, Playing, Using Mo- Bile Phones and Using Computers)
			Mobile phone: 2-3h/d v. 0h/d	NP, in last wk v. No NP, in last wk	**OR 2.74(1.23 - 6.07)** OR 1.92(0.91 - 4.07)	- -	- -
				LBP, in last wk v. No LBP, in last wk	-	OR 0.55(0.25 - 1.19)	Individual (Gender, Age, Body Mass Index (BMI), Sleeping Hours, Time Spent in Moderate Pa, Time Spent in Vigorous Pa, Watching Tv/DVD's, Playing, Using Mo- Bile Phones and Using Computers)
				MBP, in last wk v. No MBP, in last wk	OR 1.00(0.50 - 2.03) -	- OR 0.73(0.32 - 1.67)	- Individual (Gender, Age, Body Mass Index (BMI), Sleeping Hours, Time Spent in Moderate Pa, Time Spent in Vigorous Pa, Watching Tv/DVD's, Playing, Using Mo- Bile Phones and Using Computers)
			Mobile phone: 4-5h/d v. 0h/d	NP, in last wk v. No NP, in last wk	OR 1.07(0.48 - 2.36) OR 1.20(0.59 - 2.42)	- -	- -
				LBP, in last wk v. No LBP, in last wk	-	OR 0.86(0.35 - 2.10)	Individual (Gender, Age, Body Mass Index (BMI), Sleeping Hours, Time Spent in Moderate Pa, Time Spent in Vigorous Pa, Watching Tv/DVD's, Playing, Using Mo- Bile Phones and Using Computers)
				MBP, in last wk v. No MBP, in last wk	OR 1.65(0.74 - 3.65) -	- OR 1.06(0.41 - 2.69)	- Individual (Gender, Age, Body Mass Index (BMI), Sleeping Hours, Time Spent in Moderate Pa, Time Spent in Vigorous Pa, Watching Tv/DVD's, Playing, Using Mo- Bile Phones and Using Computers)
				NP, in last wk v. No NP, in last wk	OR 1.89(0.79 - 4.54) OR 1.83(0.82 - 4.08)	- -	- -
Silva 2019[xii]	Portugal, School students	n=1330(F51.8%), 13-19y (15.6±1.8)	Computer: <=1h/d v. 0h/d	LBP, 1/wk in last 3m v. No LBP in last 3m or <1/wk	-	OR 2.12(0.95 - 4.70)	Individual (Gender, Age, BMI, Sleeping Hours, Time in Moderate Pa, Time in Vigorous Pa, Time Watching Tv/DVD, Gaming, Using Mobile, Computer If P<0.01 In Univariate Model) and environmental (Unclear)
				MBP, 1/wk in last 3m v. No MBP in last 3m or <1/wk	**OR 2.26(1.10 - 4.63)** -	- OR 1.12(0.50 - 2.51)	- Individual (Gender, Age, BMI, Sleeping Hours, Time in Moderate Pa, Time in Vigorous Pa, Time Watching Tv/DVD, Gaming, Using Mobile, Computer If P<0.01 In Univariate Model) and environmental (Unclear)
				NP, 1/wk in last 3m v. No NP in last 3m or <1/wk	OR 1.26(0.62 - 2.55) OR 1.52(0.78 - 2.94)	- -	- -
			Computer: >=4h/d v. 0h/d	LBP, 1/wk in last 3m v. No LBP in last 3m or <1/wk	-	OR 2.15(0.90 - 5.18)	Individual (Gender, Age, BMI, Sleeping Hours, Time in Moderate Pa, Time in Vigorous Pa, Time Watching Tv/DVD, Gaming, Using Mobile,

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Exposure	Outcome	OR	OR	OR	Adjustment
					Computer If P<0.01 In Univariate Model)
	MBP, 1/wk in last 3m v. No MBP in last 3m or <1/wk	**OR 3.67(1.67 - 8.03)**	-	OR 1.30(0.50 - 3.33)	Individual (Gender, Age, BMI, Sleeping Hours, Time in Moderate Pa, Time in Vigorous Pa, Time Watching Tv/DVD, Gaming, Using Mobile, Computer If P<0.01 In Univariate Model)
Computer: 2-3h/d v. 0h/d	NP, 1/wk in last 3m v. No NP in last 3m or <1/wk	**OR 2.17(1.00 - 4.72)** **OR 2.34(1.12 - 4.88)**	- -	- -	
	LBP, 1/wk in last 3m v. No LBP in last 3m or <1/wk	-	OR 1.66(0.74 - 3.73)		Individual (Gender, Age, BMI, Sleeping Hours, Time in Moderate Pa, Time in Vigorous Pa, Time Watching Tv/DVD, Gaming, Using Mobile, Computer If P<0.01 In Univariate Model) and environmental (Unclear)
	MBP, 1/wk in last 3m v. No MBP in last 3m or <1/wk	**OR 2.10(1.01 - 4.37)**	-	OR 0.79(0.34 - 1.88)	Individual (Gender, Age, BMI, Sleeping Hours, Time in Moderate Pa, Time in Vigorous Pa, Time Watching Tv/DVD, Gaming, Using Mobile, Computer If P<0.01 In Univariate Model) and environmental (Unclear)
Gaming: <=1h/d v. 0h/d	NP, 1/wk in last 3m v. No NP in last 3m or <1/wk	OR 0.96(0.46 - 1.99) OR 1.48(0.76 - 2.90)	- -		
	LBP, 1/wk in last 3m v. No LBP in last 3m or <1/wk	OR 0.91(0.47 - 1.75)	-		
	MBP, 1/wk in last 3m v. No MBP in last 3m or <1/wk	-	OR 0.62(0.30 - 1.29)		Individual (Gender, Age, BMI, Sleeping Hours, Time in Moderate Pa, Time in Vigorous Pa, Time Watching Tv/DVD, Gaming, Using Mobile, Computer If P<0.01 In Univariate Model) and environmental (Unclear)
Gaming: >=4h/d v. 0h/d	NP, 1/wk in last 3m v. No NP in last 3m or <1/wk	OR 0.42(0.22 - 0.82) OR 0.62(0.33 - 1.17)	- -		
	LBP, 1/wk in last 3m v. No LBP in last 3m or <1/wk	OR 0.92(0.46 - 1.86)	-		
	MBP, 1/wk in last 3m v. No MBP in last 3m or <1/wk	-	OR 0.57(0.24 - 1.34)		Individual (Gender, Age, BMI, Sleeping Hours, Time in Moderate Pa, Time in Vigorous Pa, Time Watching Tv/DVD, Gaming, Using Mobile, Computer If P<0.01 In Univariate Model)
Gaming: 2-3h/d v. 0h/d	NP, 1/wk in last 3m v. No NP in last 3m or <1/wk	OR 0.49(0.24 - 1.00) OR 0.73(0.37 - 1.43)	- -		
	LBP, 1/wk in last 3m v. No LBP in last 3m or <1/wk	OR 0.69(0.36 - 1.33)	-		
	MBP, 1/wk in last 3m v. No MBP in last 3m or <1/wk	-	OR 0.51(0.23 - 1.10)		Individual (Gender, Age, BMI, Sleeping Hours, Time in Moderate Pa, Time in Vigorous Pa, Time Watching Tv/DVD, Gaming, Using Mobile, Computer If P<0.01 In Univariate Model) and environmental (Unclear)
		OR 0.33(0.17 - 0.65)	-		

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	NP, 1/wk in last 3m v. No NP in last 3m or <1/wk	OR 0.51(0.27 - 0.96)	-	(as above)
Mobile: <=1h/d v. 0h/d	LBP, 1/wk in last 3m v. No LBP in last 3m or <1/wk	-	OR 0.82(0.42 - 1.60)	Individual (Gender, Age, BMI, Sleeping Hours, Time in Moderate Pa, Time in Vigorous Pa, Time Watching Tv/DVD, Gaming, Using Mobile, Computer If P<0.01 In Univariate Model) and environmental (Unclear)
	MBP, 1/wk in last 3m v. No MBP in last 3m or <1/wk	OR 1.34(0.73 - 2.48) -	- OR 1.01(0.45 - 2.27)	- Individual (Gender, Age, BMI, Sleeping Hours, Time in Moderate Pa, Time in Vigorous Pa, Time Watching Tv/DVD, Gaming, Using Mobile, Computer If P<0.01 In Univariate Model) and environmental (Unclear)
	NP, 1/wk in last 3m v. No NP in last 3m or <1/wk	OR 1.39(0.68 - 2.84) -	- OR 0.86(0.47 - 1.58)	- Individual (Gender, Age, BMI, Sleeping Hours, Time in Moderate Pa, Time in Vigorous Pa, Time Watching Tv/DVD, Gaming, Using Mobile, Computer If P<0.01 In Univariate Model) and environmental (Unclear)
Mobile: >=5h/d v. 0h/d	LBP, 1/wk in last 3m v. No LBP in last 3m or <1/wk	OR 1.12(0.63 - 2.01) -	- OR 1.83(0.83 - 4.06)	- Individual (Gender, Age, BMI, Sleeping Hours, Time in Moderate Pa, Time in Vigorous Pa, Time Watching Tv/DVD, Gaming, Using Mobile, Computer If P<0.01 In Univariate Model)
	MBP, 1/wk in last 3m v. No MBP in last 3m or <1/wk	**OR 4.11(2.05 - 8.24)** -	- OR 2.37(0.95 - 5.94)	- Individual (Gender, Age, BMI, Sleeping Hours, Time in Moderate Pa, Time in Vigorous Pa, Time Watching Tv/DVD, Gaming, Using Mobile, Computer If P<0.01 In Univariate Model)
	NP, 1/wk in last 3m v. No NP in last 3m or <1/wk	**OR 4.33(1.96 - 9.56)** -	- OR 1.30(0.62 - 2.72)	- Individual (Gender, Age, BMI, Sleeping Hours, Time in Moderate Pa, Time in Vigorous Pa, Time Watching Tv/DVD, Gaming, Using Mobile, Computer If P<0.01 In Univariate Model)
Mobile: 2-3h/d v. 0h/d	LBP, 1/wk in last 3m v. No LBP in last 3m or <1/wk	**OR 2.26(1.13 - 4.51)** -	- OR 1.04(0.49 - 2.19)	- Individual (Gender, Age, BMI, Sleeping Hours, Time in Moderate Pa, Time in Vigorous Pa, Time Watching Tv/DVD, Gaming, Using Mobile, Computer If P<0.01 In Univariate Model) and environmental (Unclear)
	MBP, 1/wk in last 3m v. No MBP in last 3m or <1/wk	OR 1.82(0.92 - 3.58) -	- OR 1.30(0.54 - 3.16)	- Individual (Gender, Age, BMI, Sleeping Hours, Time in Moderate Pa, Time in Vigorous Pa, Time Watching Tv/DVD, Gaming, Using Mobile, Computer If P<0.01 In Univariate

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Study	Location, Population	n (F%), Age	Exposure	Outcome	OR (1)	OR (2)	OR (3)	Confounders / Adjustment
								Model) and environmental (Unclear)
				NP, 1/wk in last 3m v. No NP in last 3m or <1/wk	OR 1.65(0.75 - 3.67)	-	OR 1.16(0.59 - 2.29)	Individual (Gender, Age, BMI, Sleeping Hours, Time in Moderate Pa, Time in Vigorous Pa, Time Watching Tv/DVD, Gaming, Using Mobile, Computer If P<0.01 In Univariate Model) and environmental (Unclear)
			Mobile: 3-4h/d v. 0h/d	LBP, 1/wk in last 3m v. No LBP in last 3m or <1/wk	OR 0.71(0.90 - 3.25)	-	OR 1.16(0.50 - 2.77)	Individual (Gender, Age, BMI, Sleeping Hours, Time in Moderate Pa, Time in Vigorous Pa, Time Watching Tv/DVD, Gaming, Using Mobile, Computer If P<0.01 In Univariate Model) and environmental (Unclear)
				MBP, 1/wk in last 3m v. No MBP in last 3m or <1/wk	**OR 2.39(1.12 - 5.11)**	-	OR 1.79(0.69 - 4.66)	Individual (Gender, Age, BMI, Sleeping Hours, Time in Moderate Pa, Time in Vigorous Pa, Time Watching Tv/DVD, Gaming, Using Mobile, Computer If P<0.01 In Univariate Model) and environmental (Unclear)
				NP, 1/wk in last 3m v. No NP in last 3m or <1/wk	**OR 2.93(1.25 - 6.86)**	-	OR 0.91(0.41 - 2.05)	Individual (Gender, Age, BMI, Sleeping Hours, Time in Moderate Pa, Time in Vigorous Pa, Time Watching Tv/DVD, Gaming, Using Mobile, Computer If P<0.01 In Univariate Model) and environmental (Unclear)
			TV: <=1h/d v. 0h/d	LBP, 1/wk in last 3m v. No LBP in last 3m or <1/wk	OR 1.64(0.78 - 3.47)	-	-	-
				MBP, 1/wk in last 3m v. No MBP in last 3m or <1/wk	OR 1.25(0.55 - 2.87)	-	-	
				NP, 1/wk in last 3m v. No NP in last 3m or <1/wk	OR 1.12(0.45 - 2.75)	-	-	
					OR 0.84(0.39 - 1.83)	-	-	
			TV: >=4h/d v. 0h/d	LBP, 1/wk in last 3m v. No LBP in last 3m or <1/wk	OR 1.25(0.49 - 3.21)	-	-	
				MBP, 1/wk in last 3m v. No MBP in last 3m or <1/wk	OR 1.00(0.35 - 2.83)	-	-	
				NP, 1/wk in last 3m v. No NP in last 3m or <1/wk	OR 0.88(0.36 - 2.16)	-	-	
			TV: 2-3h/d v. 0h/d	LBP, 1/wk in last 3m v. No LBP in last 3m or <1/wk	OR 1.12(0.49 - 2.57)	-	-	
				MBP, 1/wk in last 3m v. No MBP in last 3m or <1/wk	OR 0.91(0.37 - 2.25)	-	-	
				NP, 1/wk in last 3m v. No NP in last 3m or <1/wk	OR 0.70(0.32 - 1.53)	-	-	
Sjolie 2004	Norway , School students	n=105(F36.2%), 14.1 - 16.1y (14.7±NR)	TV &/or computer: number of 45min+ sessions/week v. Unclear	LBP, in last 12m v. No LBP, in last 12m	-	**OR 1.70(1.20 - 2.50)**		Individual (Gender) and environmental (Distances Walked/Bicycled to School and Activities, Physical Activity)
Skemiene 2012	Lithuania , School students	n=1806(F49.8%), 13-18y (NR±NR)	Computer : 2-4h/d v. <2h/d	NSP, B13-15 v. No NSP	-		OR 1.11(0.60 - 2.06)	Individual (Age, Gender)
			Computer: >4h/d v. <2h/d	BP, B13-15 v. No back pain	-		**OR 2.36(1.21 - 4.62)**	(as above)
				BP, B16-18 v. No back pain	-		OR 1.11(0.68 - 1.80)	(as above)
				BP, G13-15 v. No back pain	-		**OR 2.50(1.22 - 5.13)**	(as above)
				BP, G16-18 v. No back pain	-		**OR 2.06(1.22 - 3.48)**	(as above)
				NSP, B13-15 v. No NSP	-		OR 1.31(0.67 - 2.53)	(as above)
				NSP, B16-18 v. No NSP	-		OR 0.99(0.61 - 1.60)	(as above)

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Study	Country, Population	Sample	Exposure	Outcome	OR	OR (CI)	Confounders
			Computer: 2-4h/d v. <2h/d	NSP, G13-15 v. No NSP	-	OR 1.88(0.91 - 3.90)	(as above)
				NSP, G16-18 v. No NSP	-	OR 1.47(0.89 - 2.43)	(as above)
				BP, B13-15 v. No back pain	-	OR 1.61(0.87 - 2.97)	(as above)
				BP, B16-18 v. No back pain	-	OR 1.06(0.66 - 1.69)	(as above)
				BP, G13-15 v. No back pain	-	OR 1.08(0.67 - 1.75)	(as above)
				BP, G16-18 v. No back pain	-	**OR 1.80(1.20 - 2.71)**	(as above)
				NSP, B16-18 v. No NSP	-	OR 0.91(0.57 - 1.45)	(as above)
				NSP, B13-15 v. No NSP	-	OR 1.03(0.62 - 1.70)	(as above)
				NSP, G16-18 v. No NSP	-	**OR 1.62(1.08 - 2.44)**	(as above)
Skoffer 2008	Denmark, School students	n=555(F46.5%), 14-17y (NR±NR)	Homework &/or reading, 2 days before investigation: h v. NA, continuous variable	LBP, in last 3m, function limiting (LBP resulting in disturbed sleep at night, absence from school, prohibition of normal leisure activities, or care seeking) v. No LBP, in last 3m	-	**OR 1.17(1.00 - 1.35)**	Individual (Age, Gender, BMI, Physical Activity and Inactivity Indicators, Weight and Transport of School Bag, School, Smoking) and environmental (School Furniture, Furniture at Home and Other Predictors of The Table)
			Homework &/or reading, the preceding day: h v. NA, continuous variable	LBP, in last 3m v. No LBP, in last 3m	-	**OR 1.27(1.11 - 1.45)**	(as above)
			Homework &/or reading, the preceding weekend: h v. NA, continuous variable		-	OR 0.94(0.89 - 1.00)	(as above)
				LBP, in last 3m, function limiting (LBP resulting in disturbed sleep at night, absence from school, prohibition of normal leisure activities, or care seeking) v. No LBP, in last 3m	-	OR 0.89(0.81 - 0.98)	(as above)
			Homework, in school break the preceding day : h v. NA, continuous variable		-	**OR 1.87(1.03 - 3.37)**	(as above)
			Inactive transport, by car preceding day: h v. NA, continuous variable	LBP, in last 3m v. No LBP, in last 3m	-	**OR 2.14(1.13 - 4.04)**	(as above)
			Inactive transport, by car preceding day: h v. NA, continuous variable		OR 2.00(NR - NR)	-	-
				LBP, in last 3m, function limiting (LBP resulting in disturbed sleep at night, absence from school, prohibition of normal leisure activities, or care seeking) v. No LBP, in last 3m	-	**OR 1.94(1.04 - 3.60)**	Individual (Age, Gender, BMI, Physical Activity and Inactivity Indicators, Weight and Transport of School Bag, School, Smoking) and environmental (School Furniture, Furniture at Home and Other Predictors of The Table)
			Sitting talking in school breaks (the preceding day): h v. NA, continuous variable	LBP, in last 3m v. No LBP, in last 3m	OR 2.00(NR - NR) OR 1.50(NR - NR)	- -	- -
				LBP, in last 3m, function limiting (LBP resulting in disturbed sleep at night, absence from school, prohibition of normal leisure activities, or care seeking) v. No LBP, in last 3m	OR 1.20(NR - NR)	-	-
			TV, the preceding weekend: h v. NA, continuous variable	LBP, in last 3m v. No LBP, in last 3m	-	**OR 1.07(1.01 - 1.14)**	Individual (Age, Gender, BMI, Physical Activity and Inactivity Indicators, Weight and Transport of School Bag, School, Smoking) and environmental (School Furniture, Furniture at Home and Other Predictors of The Table)
			TV, two days before the investigation: h v. NA, continuous variable	LBP, in last 3m, function limiting (LBP resulting in disturbed sleep at night, absence from school, prohibition of normal leisure activities, or care seeking) v. No LBP, in last 3m	-	**OR 1.18(1.05 - 1.34)**	(as above)
Smith 2009	South Africa, School students	n=1073(F64.9%), 14 - 18 y (16.3±1.1)	Computer: >8.5h/w v. <8.5h/w	NP, in last mth v. No NP	**OR 1.70(1.20 - 2.30)**	-	-
Song 2008	South Korea, School students (city)	n=1232(F50.8%), NRy (NR±NR)	Sitting (afterschool): >=4h/d v. <1h/d	NSP, females, significant (1/wk or more in last 6m) v. Unclear	-	OR 1.71(0.98 - 2.97)	Individual (Unclear) and environmental (Unclear)
				NSP, males, significant (1/wk or more in last 6m) v. Unclear	-	OR 1.42(0.82 - 2.46)	(as above)

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Study	Setting	Sample	Exposure	Outcome	OR (1)	OR (2)	Adjustments (Level)
				NSP, significant (1/wk or more in last 6m) v. Unclear	-	**OR 1.48(1.02 - 2.17)**	(as above)
			Sitting (afterschool): 1-1.99h/d v. <1h/d	NSP, females, significant (1/wk or more in last 6m) v. Unclear	-	OR 1.16(0.59 - 2.30)	(as above)
				NSP, males, significant (1/wk or more in last 6m) v. Unclear	-	OR 0.79(0.40 - 1.57)	(as above)
				NSP, significant (1/wk or more in last 6m) v. Unclear	-	OR 0.92(0.58 - 1.47)	(as above)
			Sitting (afterschool): 2-3.99h/d v. <1h/d	NSP, females, significant (1/wk or more in last 6m) v. Unclear	-	OR 1.22(0.67 - 2.22)	(as above)
				NSP, males, significant (1/wk or more in last 6m) v. Unclear	-	OR 1.04(0.58 - 1.88)	(as above)
				NSP, significant (1/wk or more in last 6m) v. Unclear	-	OR 1.07(0.71 - 1.62)	(as above)
Straker 2011[ii]	Australia, Birth cohort, Western Australian Pregnancy Cohort RAINE	n=2425(F48.8%), 14y (14.1±0.6)	Computer: 0,<7,7-14,14-21,>21h/w v. NA	NSP, in last mth v. No NSP, in last mth	-	**OR 1.19(1.01 - 1.19)**	Individual (Gender, Posture)
					OR 1.00(0.90 - 1.12)	-	-
Straker 2018	Australia, School students	n=NR(F50.0%), 10.4-19.3y (NR±NR)	Computer, desktop : m/d v. NA	LBP, in last mth v. No LBP, in last mth	-	OR 1.01(NR - NR)	Individual (Gender, Grade)
				NSP, in last mth v. No NSP, in last mth	-	OR 1.11(NR - NR)	(as above)
			Computer, laptop: m/d v. NA	LBP, in last mth v. No LBP, in last mth	-	OR 1.00(NR - NR)	(as above)
				NSP, in last mth v. No NSP, in last mth	-	OR 1.05(NR - NR)	(as above)
			Computer, tablet : m/d v. NA	LBP, in last mth v. No LBP, in last mth	-	OR 1.04(NR - NR)	(as above)
				NSP, in last mth v. No NSP, in last mth	-	OR 1.07(NR - NR)	(as above)
			Gaming, console: m/d v. NA	LBP, in last mth v. No LBP, in last mth	-	OR 0.91(NR - NR)	(as above)
				NSP, in last mth v. No NSP, in last mth	-	OR 1.07(NR - NR)	(as above)
			Gaming, hand-held: m/d v. NA	LBP, in last mth v. No LBP, in last mth	-	OR 1.18(NR - NR)	(as above)
				NSP, in last mth v. No NSP, in last mth	-	OR 0.95(NR - NR)	(as above)
			Mobile phone: m/d v. NA	LBP, in last mth v. No LBP, in last mth	-	OR 1.09(NR - NR)	(as above)
				NSP, in last mth v. No NSP, in last mth	-	OR 1.13(NR - NR)	(as above)
			TST (TV, computer, gaming, phone, tablet): m/d v. NA	LBP, in last mth v. No LBP, in last mth	-	OR 1.06(NR - NR)	(as above)
				NSP, in last mth v. No NSP, in last mth	-	OR 1.10(NR - NR)	(as above)
			TV: m/d v. NA	LBP, in last mth v. No LBP, in last mth	-	OR 1.07(NR - NR)	(as above)
				NSP, in last mth v. No NSP, in last mth	-	OR 1.17(NR - NR)	(as above)
Toh 2019	Singapore, nationally representative	n=2543(F50.4%), 10-18y (13.3±2.0)	Smartphone : h/d v. NR	NSP, in last mth v. No NSP, in last mth	OR 1.09(1.06 - 1.11)	-	-
			Smartphone: h/d v. NR	LBP, in last mth v. No LBP, in last mth	-	OR 1.01(0.98 - 1.04)	Individual (Gender, School Leve, Depression, Anxiety and Stress Scale 21, Physical Activity Questionnaire for Adolescents, TST(Excluding Smartphone))
					OR 1.06(1.04 - 1.09)	-	-
				NSP, in last mth v. No NSP, in last mth	-	**OR 1.04(1.01 - 1.07)**	Individual (Gender, School Leve, Depression, Anxiety and Stress Scale 21, Physical Activity Questionnaire for Adolescents, TST(Excluding Smartphone))
				UBP, in last mth v. No UBP, in last mth	-	**OR 1.07(1.03 - 1.10)**	(as above)
					OR 1.09(1.07 - 1.12)	-	-
			Tablet : h/d v. NR	LBP, in last mth v. No LBP, in last mth	-	OR 1.02(0.96 - 1.09)	Individual (Gender, School Leve, Depression, Anxiety and Stress Scale 21, Physical Activity Questionnaire for Adolescents, TST(Excluding Smartphone))
					OR 1.00(0.96 - 1.06)	-	-
				NSP, in last mth v. No NSP, in last mth	-	OR 1.02(0.97 - 1.08)	Individual (Gender, School Leve, Depression, Anxiety and Stress Scale 21, Physical Activity

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Study	Setting	N	Exposure	Outcome	Result 1	Result 2	Adjustment
					OR 1.02(0.98 - 1.07)	-	Questionnaire for Adolescents, TST(Excluding Smartphone))
				UBP, in last mth v. No UBP, in last mth	-	OR 0.97(0.91 - 1.03)	- Individual (Gender, School Leve, Depression, Anxiety and Stress Scale 21, Physical Activity Questionnaire for Adolescents, TST(Excluding Smartphone))
					OR 0.99(0.94 - 1.04)	-	-
Torsheim 2010	Denmark, Sweden, Norway, Finland, Iceland, Greenland, nationally representative	n=31022(FNR%), 11,13,15y (NR±NR)	Computer: Continuous v. NA	Back ache, females, weekly v. Backache, monthly, rarely or never	-	**OR 1.05(1.02 - 1.08)**	Individual (Age, Depressed Mood, School Related Stress, Physical Activity) and environmental (Country, SES)
				Back ache, males, weekly v. Backache, monthly, rarely or never	-	**OR 1.06(1.03 - 1.09)**	(as above)
			Gaming: Continuous v. NA	Back ache, females, weekly v. Backache, monthly, rarely or never	-	**OR 1.05(1.01 - 1.10)**	(as above)
				Back ache, males, weekly v. Backache, monthly, rarely or never	-	**OR 1.04(1.01 - 1.07)**	(as above)
			TV: Continuous v. NA	Back ache, females, weekly v. Backache, monthly, rarely or never	-	**OR 1.08(1.05 - 1.12)**	(as above)
				Back ache, males, weekly v. Backache, monthly, rarely or never	-	**OR 1.05(1.02 - 1.09)**	(as above)
Toyran 2002	Turkey, School students	n=NR(F49.8%), NRy (8.0±0.8)	TV: <2h/d v. NA	Back pain v. No back pain	p-value, p=0.064	-	-
			TV: >4h/d v. NA		p-value, p=0.064	-	-
			TV: 2-4h/d v. NA	Back pain v. No back pain	p-value, p=0.064	-	-
Troussier 1994	France , School students	n=1299(F53.1%), 6-20y (12.8±3.5)	TV: <1h/d v. 0h/d	SP v. No SP	OR calculated 1.08(0.71 - 1.63)	-	-
			TV: <1h/d v. NR		**p-value, p=0.0000**	-	-
			TV: >2h/d v. <2h/d		**OR calculated 2.01(1.15 - 3.50)**	-	-
			TV: >2h/d v. 0h/d		**OR calculated 2.68(1.38 - 5.22)**	-	-
			TV: >2h/d v. NR		**p-value, p=0.0000**	-	-
			TV: 0h/d v. NR		**p-value, p=0.0000**	-	-
			TV: 1-2h/d v. 0h/d		**OR calculated 1.77(1.14 - 2.75)**	-	-
			TV: 1-2h/d v. NR		**p-value, p=0.0000**	-	-
Turk 2011	Slovenia, School students	n=190(F49.5%), 11-15, 17-18y (NR±NR)	Computer : h/d v. NA	LBP v. No LBP	Calculated mean difference- 10.00(-0.40 - 0.02) p-value, p=0.519	-	(as above) -
			TV: h/d v. NA	LBP v. No LBP	**p-value, p=0.012**	-	-
				LBP v. No LBP	Calculated mean difference- 40.00(-0.71 - -0.09)	-	(as above)
Vanti 2010	Italy, Gymnasts	n=NR(F93% (46.1% controls)%), 11-14y (12.3 (13.07 controls)±3.63 (0.95 controls))	Computer: h v. Controls	LBP, low level v. Controls	OR 1.02(0.83 - NR)	-	-
				LBP, medium/high level v. Controls	OR 1.07(0.88 - 1.30)	-	-
			Computer: h v. Gymnasts	LBP, low level v. Gymnasts	OR 1.18(0.71 - 1.96)	-	-
				LBP, medium/high level v. Gymnasts	OR 0.88(0.54 - 1.44)	-	-
			Sitting (afterschool): h v. Controls	LBP, low level v. Controls	OR 0.98(0.85 - NR)	-	-
				LBP, medium/high level v. Controls	OR 1.01(0.88 - 1.16)	-	-
			Sitting (afterschool): h v. Gymnasts	LBP, low level v. Gymnasts	**OR 1.62(1.11 - 2.37)**	-	-
				LBP, medium/high level v. Gymnasts	**OR 1.93(1.26 - 2.96)**	-	-
			Studying (unclear screen or no-screen): h v. Controls	LBP, low level v. Controls	OR 1.06(0.88 - 1.28)	-	-
				LBP, medium/high level v. Controls	OR 1.07(0.89 - 1.28)	-	-
			Studying (unclear screen or no-screen): h v. Gymnasts	LBP, low level v. Gymnasts	OR 1.04(0.64 - 1.69)	-	-
				LBP, medium/high level v. Gymnasts	OR 1.20(0.71 - 2.02)	-	-
			TV: h v. Controls	LBP, low level v. Controls	**OR 1.18(1.00 - 1.39)**	-	-
				LBP, medium/high level v. Controls	OR 1.05(0.90 - 1.22)	-	-
			TV: h v. Gymnasts	LBP, low level v. Gymnasts	OR 0.71(0.42 - 1.20)	-	-
				LBP, medium/high level v. Gymnasts	OR 0.58(0.31 - 1.09)	-	(as above)
Watson 2003	England, School students	n=1496(F53.9%), 11-14y (NR±NR)	TV &/or computer: >330m/d v. 15-140m/d	LBP, in last mth >1d v. No LBP, in last mth or <1d	-	OR 1.30(0.70 - 2.30)	Individual (Age, Gender)

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Study	Country, Setting	n (F%), age	Exposure	Outcome	OR (crude)	OR (adjusted) / p-value	Adjustment
			TV &/or computer: 141-210m/d v. 15-140m/d		-	OR 1.00(0.60 - 1.80)	(as above)
			TV &/or computer: 211-330m/d v. 15-140m/d		-	OR 1.20(0.70 - 2.10)	(as above)
Wedderkopp 2003	Denmark, School students	n=806(F52.0%), 8-10, 14-16y (NR±NR)	TV &/or computer: h/d v. NR	Back pain, last mth v. No back pain, last mth	-	p-value, p=0.41	Individual (Age, Gender, And Stage of Puberty)
				LBP, last mth v. No LBP, last mth	-	p-value, p=0.78	(as above)
				MBP, last mth v. No MBP, last mth	-	p-value, p=0.92	(as above)
Wirth 2013[xiii]	Switzerland, General population	n=936(F53.7%), 6-16y (10.4±2.8)	TV &/or computer: >1h/d v. <1h/d	LBP v. No LBP	OR 1.39(0.62 - 3.10)	-	-
				MBP v. No MBP	OR 1.09(0.38 - 3.11)	-	-
				NP v. No NP	OR 0.49(0.18 - 1.32)	-	(as above)
				SP v. No SP	OR 0.97(0.57 - 1.65)	-	-
				SP, >1 region v. No SP, SP in 1 region	OR 1.08(0.53 - 2.19)	-	-
				SP, females v. No SP, females	OR 1.24(0.54 - 2.88)	-	-
				SP, males v. No SP, males	OR 0.74(0.36 - 1.55)	-	-
Wirth 2015[xiii]	Switzerland, General population	n=412(F51.9%), 10-16y (12.4±1.8)		SP, >1 region v. No SP	-	OR 1.07(1.01 - 1.14)	Individual (Age, Gender, BMI, Finger Floor Distance, Adams Sign, Single Leg Stance with Closed Eyes, Sleep Disorders, Headache, Abdominal Pain, Headache and Abdominal Pain) and environmental (Parental Back Pain, Parental Smoking)
				SP, frequent or daily v. No SP	OR 1.06(NR - NR)	OR 1.02(0.97 - 1.08)	Individual (Age, Gender, BMI, Finger Floor Distance, Adams Sign, Single Leg Stance with Closed Eyes, Sleep Disorders, Headache, Abdominal Pain, Headache and Abdominal Pain) and environmental (Parental Back Pain, Parental Smoking)
				SP, mild occasional v. No SP	OR 1.04(NR - NR)	OR 1.03(0.98 - 1.09)	Individual (Age, Gender, BMI, Finger Floor Distance, Adams Sign, Single Leg Stance with Closed Eyes, Sleep Disorders, Headache, Abdominal Pain, Headache and Abdominal Pain) and environmental (Parental Back Pain, Parental Smoking)
				SP, moderate/severe and frequent/daily pain in >1 region v. No SP	OR 1.06(NR - NR)	OR 1.06(0.98 - 1.16)	Individual (Age, Gender, BMI, Finger Floor Distance, Adams Sign, Single Leg Stance with Closed Eyes, Sleep Disorders, Headache, Abdominal Pain, Headache and Abdominal Pain) and environmental (Parental Back Pain, Parental Smoking)
				SP, moderate/severe frequent v. No SP	OR 1.05(NR - NR)	OR 1.03(0.98 - 1.09)	Individual (Age, Gender, BMI, Finger Floor Distance, Adams Sign, Single Leg Stance with Closed Eyes, Sleep Disorders, Headache, Abdominal Pain, Headache and Abdominal Pain) and environmental (Parental Back Pain, Parental Smoking)
				SP, moderate/severe occasional v. No SP	OR 1.04(NR - NR)	OR 1.03(0.98 - 1.51)	Individual (Age, Gender, BMI, Finger Floor Distance, Adams Sign, Single Leg Stance with Closed Eyes, Sleep Disorders, Headache, Abdominal Pain, Headache and Abdominal Pain)

Study	Population	Sample	Exposure	Outcome	OR	OR	Adjustments
					OR 1.03(NR - NR)	-	and environmental (Parental Back Pain, Parental Smoking)
				SP, non-recurring or occasional v. No SP	-	OR 1.03(0.99 - 1.07)	- Individual (Age, Gender, BMI, Finger Floor Distance, Adams Sign, Single Leg Stance with Closed Eyes, Sleep Disorders, Headache, Abdominal Pain, Headache and Abdominal Pain) and environmental (Parental Back Pain, Parental Smoking)
					OR 1.04(NR - NR)	-	-
Yabe 2018	Japan, Athletes (amateur)	n=25469(F28.6%), 6-15y (11.0±1.9)	Gaming: >3h/d v. <1h/d	LBP, present now v. No LBP, present now	-	**OR 2.18(1.49 - 3.20)**	Individual (Age, Gender, BMI, Team Levels, Number of Days in Practice Per Week, Number of Hours in Practice Per Day, Tv Viewing Time Per Day, Video-Game-Playing Time Per Day, And Sleeping Time)
			Gaming: 1-2h/d v. <1h/d		**OR 2.78(1.96 - 3.94)**	**OR 1.36(1.01 - 1.84)**	- Individual (Age, Gender, BMI, Team Levels, Number of Days in Practice Per Week, Number of Hours in Practice Per Day, Tv Viewing Time Per Day, Video-Game-Playing Time Per Day, And Sleeping Time)
			Gaming: 2-3h/d v. <1h/d		OR 1.27(0.97 - 1.70)	**OR 1.46(1.01 - 2.10)**	- Individual (Age, Gender, BMI, Team Levels, Number of Days in Practice Per Week, Number of Hours in Practice Per Day, Tv Viewing Time Per Day, Video-Game-Playing Time Per Day, And Sleeping Time)
			TV: >3h/d v. <1h/d		**OR 1.60(1.14 - 2.25)**	OR 1.00(0.66 - 1.51)	- Individual (Age, Gender, BMI, Team Levels, Number of Days in Practice Per Week, Number of Hours in Practice Per Day, Tv Viewing Time Per Day, Video-Game-Playing Time Per Day, And Sleeping Time)
			TV: 1-2h/d v. <1h/d		OR 1.27(0.86 - 1.88) OR 0.94(0.62 - 1.43)	OR 0.91(0.59 - 1.41)	- - Individual (Age, Gender, BMI, Team Levels, Number of Days in Practice Per Week, Number of Hours in Practice Per Day, Tv Viewing Time Per Day, Video-Game-Playing Time Per Day, And Sleeping Time)
			TV: 2-3h/d v. <1h/d		OR 0.95(0.63 - 1.43)	OR 0.84(0.54 - 1.29)	(as above)
Yang 2017	China , School students	n=315(F39.7%), 16-19y (NR±NR)	Mobile phone: >3h/d v. <1h/d	LBP (lower back discomfort) v. No LBP	OR 0.89(0.49 - 1.64)	-	-
				MBP (upper back discomfort) v. No MBP	OR 0.51(0.24 - 1.07)	-	(as above)
				NP (neck discomfort) v. No NP	OR 0.69(0.39 - 1.24)	-	-
			Mobile phone: 1-3h/d v. <1h/d	LBP (lower back discomfort) v. No LBP	OR 1.61(0.58 - 4.47)	-	-
				MBP (upper back discomfort) v. No MBP	OR 1.63(0.56 - 4.72)	-	-
				NP (neck discomfort) v. No NP	OR 1.24(0.46 - 3.30)	-	-
			Mobile, ancillary function use: >3h/d v. <1h/d	LBP (lower back discomfort) v. No LBP	OR 0.79(0.43 - 1.47)	-	-
				MBP (upper back discomfort) v. No MBP	OR 0.82(0.41 - 1.66)	-	-
				NP (neck discomfort) v. No NP	OR 0.92(0.50 - 1.68)	-	-

Supplemental material

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Study	Setting	Sample	Exposure	Outcome	Effect		
			Mobile, ancillary function use: 1-3h/d v. <1h/d	LBP (lower back discomfort) v. No LBP	OR 0.31(0.12 - 0.83)	-	(as above)
				MBP (upper back discomfort) v. No MBP	OR 0.56(0.20 - 1.63)	-	(as above)
				NP (neck discomfort) v. No NP	OR 0.59(0.25 - 1.37)	-	(as above)
			Mobile, talking on phone: >3h/d v. <1h/d	LBP (lower back discomfort) v. No LBP	OR 2.31(0.79 - 6.72)	-	-
				MBP (upper back discomfort) v. No MBP	**OR 4.34(1.10 - 17.11)**	-	-
				NP (neck discomfort) v. No NP	OR 2.20(0.82 - 5.90)	-	-
			Mobile, talking on phone: 1-3h/d v. <1h/d	LBP (lower back discomfort) v. No LBP	OR 1.62(0.60 - 4.40)	-	-
				MBP (upper back discomfort) v. No MBP	OR 3.02(0.81 - 11.24)	-	-
				NP (neck discomfort) v. No NP	OR 1.54(0.62 - 3.85)	-	-
			Mobile, texting: >3h/d v. <1h/d	LBP (lower back discomfort) v. No LBP	OR 1.13(0.57 - 2.22)	-	-
				MBP (upper back discomfort) v. No MBP	OR 0.54(0.26 - 1.15)	-	(as above)
				NP (neck discomfort) v. No NP	OR 0.92(0.48 - 1.78)	-	-
			Mobile, texting: 1-3h/d v. <1h/d	LBP (lower back discomfort) v. No LBP	OR 1.18(0.51 - 2.71)	-	-
				MBP (upper back discomfort) v. No MBP	OR 1.06(0.44 - 2.58)	-	-
				NP (neck discomfort) v. No NP	OR 1.12(0.50 - 2.53)	-	-
Yao 2012	China, School students	n=NR(F60.3%), NRy (15.24 (controls 15.04)±2.25 (controls 2.11))	Computer: <61m/d v. NA	LBP, in last 3m v. No LBP, in last 3m	p-value, p=0.33	-	-
			Computer: >121m/d v. NA		p-value, p=0.33	-	-
			Computer: 61-120m/d v. NA		p-value, p=0.33	-	-
			Homework: <61m/d v. NA		p-value, p=0.29	-	-
			Homework: >241m/d v. NA		p-value, p=0.29	-	-
			Homework: 121-180m/d v. NA		p-value, p=0.29	-	-
			Homework: 181-240m/d v. NA		p-value, p=0.29	-	-
			Homework: 61-120m/d v. NA		p-value, p=0.29	-	-
			TV: <30m/d v. NA		p-value, p=0.490	-	-
			TV: >60m/d v. NA		p-value, p=0.490	-	-
			TV: 31-60m/d v. NA		p-value, p=0.490	-	-
Zapata 2006	Brazil, School students	n=833(F52.5%), 10-18y (14.2±NR)	Computer, gaming, Saturdays : >120m/d v. <40m/d	Back pain v. No back pain	**OR 1.83(1.38 - 2.43)**	-	-
			Computer, gaming, weekdays: >120m/d v. <60m/d	Back pain v. No back pain	**OR 1.49(1.04 - 2.12)**	-	-

Legend: superscript roman numerals indicate reports analysing the same study sample; n = sample size, %F = portion of sample female, SD, standard deviation; 95%CI, 95% confidence interval; NR, not reported; RRR, relative risk ratio; OR, odds ratio; calculated OR, OR calculated by reviewers from data included in original report, PR, prevalence ratio; **bold**, positive association; y, years; m, months or minutes; m/d, minutes per day; h/d, hours per day; h/w, hours per week; TSB, total sedentary behaviour; TV, television; SP, spinal pain; UQMP, upper quadrant musculoskeletal pain; LBP, low back pain; BP, back pain; NSP, neck shoulder pain; BMI, body mass index; SES, socioeconomic status.