

Table S2. Extracted data of studies included in systematic review (gender-related findings).

#	Author (year) Country	Study design / Data collection / Participants (sample size; age range (mean); gender; response rate)	Outdoor Play Definition Measurement	Parental correlates Measurement	Main findings of gender differences	Study quality
1	Aarts et al. (2010) [56] Netherlands	<u>Study design</u> cross-sectional <u>Data collection</u> Sep 2007 - Jan 2008 <u>Participants</u> n = 6,470 4-12 yrs (7.9 yrs) 49.9% (F) rr = 60%	<u>Definition</u> natural way for children to be physically active [56]; in contrast to organized sports, outdoor play is cheap, informal and easily accessible [8] <u>Measurement</u> <u>parental report:</u> (considering a typical week in the last mo./separately questions for week- and week-end days): 'How many days does your child play outside on week- days/weekends?'; 'On average, how long does your child	<u>Parents' perceived neighborhood physical environment</u> (1) degree of unoccupied houses (2) presence of dog waste (3) presence of water (4) diversity of routes <u>Parents' perceived neighborhood social environment</u> (5) social cohesion <u>Measurements</u> <u>parental report:</u> response options: Five- point Likert scale from 'strongly agree' to 'strongly disagree' [93]	<u>Multivariate GEE analysis</u> (Relative rate; 95% CI): - adjusted for parental education <u>Parents' perceived neighborhood physical environment</u> (1) positive association of the degree of unoccupied houses and outdoor play in boys (10-12 yrs, RR = 1.05, CI: 1.02, 1.08); no association for girls (10-12 yrs) (2) positive association of the presence of dog waste and outdoor play in girls (4-6 yrs, RR = 1.03, CI: 1.00, 1.05); no association for boys (4-6 yrs) (3) positive association of the presence of water and outdoor play in boys (4-6 yrs, RR = 1.04, CI: 1.01, 1.07); no association for girls (4-6 yrs) (4) positive association of the perceived diversity of routes and outdoor play in girls (7-9 yrs, RR = 1.03, CI: 0.99, 1.06) and boys (10-12 yrs, RR = 1.08, CI: 1.03, 1.13); no association for boys (7-9 yrs) and girls (10-12 yrs)	high

		spend on out-door play on such a weekday/weekend day?' [93]			<u>Parents' perceived neighborhood social environment</u> (5) positive association of perceived social cohesion and outdoor play in girls (10-12 yrs, RR = 1.02, CI: 1.01, 1.04); no association for boys (10-12 yrs)
2	Cleland et al. (2010) [23] Australia	<u>Study design</u> longitudinal	<u>Definition</u> n.r.	<u>Parenting practices</u> (1) outdoor social opportunities <u>Parents' social and cultural correlates</u> (2) parental encouragement	<u>Longitudinal linear regression</u> (adjusted β coefficient; 95% CI; p-value): - adjusted for maternal education, parental marital status, outdoor tendencies, parental encouragement, social opportunities, supervision, dog ownership, yard size, home PA opportunities, weather
		<u>Data collection</u> Jul - Dec 2001, 2004 and 2006 (The Children Living in Active Neighborhoods (CLAN) study)		<u>Measurements</u> parental report: (1) four statements about who the child goes outside with (ICC 0.61-0.79) (2) responses to two statements about encouragement of and success in getting the child to play outside (ICC 0.42-0.54)	<u>Parenting practices</u> (1) high social opportunities (β =169.7; CI: 25.9, 313.6; $p<0.05$) are positively associated with average weekly time (minutes/week) spent outdoors in boys (5-6 yrs) (ref low); no association of high social opportunities and outdoor play ($p>0.05$) for girls (5-6 yrs) <u>Social and cultural correlates</u> (2) high parental encouragement (β =234.0; CI: 30.1, 437.8; $p<0.05$) is positively associated with average weekly time (minutes/week) spent outdoors in girls (5-6 yrs) (ref low); no association of high parental encouragement and outdoor play ($p>0.05$) for boys (5-6 yrs) (2) high parental encouragement (β =151.4; CI: 66.6, 236.2; $p<0.01$) is positively associated with

fair

					average weekly time (minutes/week) spent outdoors in girls (10-12 yrs) (ref low); no association of high parental encouragement and outdoor play (p>0.05) for boys (10-12 yrs)	
		<u>Definition</u> n.r.				
		<u>Study design</u> cross-sectional	<u>Measurement</u> parental report: <i>'Most of the time does your child play outdoors for at least 30 min per day? Do not count outdoor play during school hrs.'</i>	<u>Parents' social and cultural correlates</u> (1) parental encouragement	Multivariate models (β coefficient; p-value): - adjusted for sociodemographic variables, child's weight status, parent's PA	
		<u>Data collection</u> 2012 - 2014 (from Texas Childhood Obesity Research Demonstration (TX CORD))	<i>30 min per day? Do not count outdoor play during school hrs.'</i>	<u>Parents' perceived neighborhood social environment</u> (2) neighborhood safety	<u>Social and cultural correlates</u> (1) positive association of parental encouragement and child's reported outdoor play in girls ($\beta=0.650$; p=0.018); no significant association for boys (p>0.05)	
3	Nicksic et al. (2018) [48] United States	<u>Participants</u> n = 748 grade 5 (n.r.) 57.9% (F) rr = ~90%	child's report: <i>'Last week, on what days did you play outdoors for at least 30 min or more? Do not count outdoor play during school hrs.'</i> (Spearman's correlation between child's and parents report 0.168; p=0.01)	<u>Measurements</u> parental report: (1) extent of agreement with the statement 'If the weather is good, I encourage my child to play outside.'; (Likert scale: 'strongly disagree' to 'strongly agree') [109] (2) 11-item scale (Cronbach's $\alpha=0.91$); adapted from the Teen Health 2000 Study [110]	<u>Parents' perceived neighborhood social environment</u> (2) positive association of perceived neighborhood safety ($\beta=0.667$; p=0.033) and child's reported outdoor play in boys; no association for girls (p>0.05)	high
4	Wilkie et al. (2018) [57]	<u>Study design</u> cross-sectional	<u>Definition</u> n.r.	<u>Parents' perceived neighborhood physical environment</u> (1) traffic related safety concerns	Multivariate logistic regression (OR; 95% CI; p-value): - adjusted for age, sex, SES	high
		<u>Data collection</u>	<u>Measurement</u>			

United Kingdom	Sep 2011 - Jan 2013 (from International Study of Childhood Obesity, Lifestyle and the Environment (ISCOLE))	child's report: <i>time spend outside 'on a school day after school before bedtime' and 'on a weekend day' ('<1hr'; '1hr'; '2hrs'; '3hrs'; '4hrs'; '5 or more hrs' (Diet and Lifestyle Questionnaire [120]</i>	Measurements parental report: (1) traffic related safety concerns (10 items): Neighborhood Environment Walkability Scale for Youth [118]	<u>Parents' perceived neighborhood physical environment</u> (1) per increased unit in the traffic-related safety concerns score lower odds of spending more time outdoors after school in boys only (OR=0.52;CI: 0.28, 0.97; p=0.040) were found; no significant association for girls (OR=1.36, CI: 0.84, 2.21; p=0.207)
	<u>Participants</u> n = 462 9-11 yrs (10.9 yrs) <i>girls: 55%</i> rr = n.r.			

Note: PA= physical activity; MVPA = moderate-to-vigorous physical activity; BMI= body mass index; rr = response rate; yrs = years; mo. (s) = month/months; n.r. = not reported; n.c. = not calculable; hr(s) = hour(s); min = minutes; italic and in green colored indications = self calculated