

Trends in the Perceived Body Size of Adolescent Males and Females in Scotland, 1990-2014: Changing Associations with Mental Well-being

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Table S1. Age differences and time trends in adolescents' underweight perceptions, Scotland 1990-2014 ^{a, b}

Boys		Girls	
Model 1a			
11-year olds (ref)		11-year olds (ref)	
13-year olds	1.18 (1.07, 1.31)**	13-year olds	0.95 (0.84, 1.06)
15-year olds	1.60 (1.44, 1.77)***	15-year olds	0.72 (0.64, 0.81)***
Model 1b			
11-year olds	0.63 (0.56, 0.69)***	11-year olds	1.39 (1.24, 1.57)***
13-year olds	0.74 (0.67, 0.81)***	13-year olds	1.32 (1.17, 1.49)***
15-year olds (ref)		15-year olds (ref)	
Model 2			
Year ^c	1.00 (0.99, 1.00)	Year ^c	0.99 (0.98, 1.00)**
Model 3a			
11-year olds (ref)		11-year olds (ref)	
13-year olds	1.32 (1.09, 1.60)**	13-year olds	0.95 (0.78, 1.16)
15-year olds	1.87 (1.55, 2.26)***	15-year olds	0.69 (0.57, 0.85)***
Year ^c	1.00 (0.99, 1.01)	Year ^c	0.99 (0.98, 1.00)*
Year × 11-year olds (ref)		Year × 11-year olds (ref)	
Year × 13-year olds	0.99 (0.98, 1.00)	Year × 13-year olds	1.00 (0.99, 1.01)
Year × 15-year olds	0.99 (0.98, 1.00)	Year × 15-year olds	1.00 (0.99, 1.02)
Model 3b			
11-year olds	0.53 (0.44, 0.64)***	11-year olds	1.44 (1.18, 1.76)***
13-year olds	0.71 (0.59, 0.85)***	13-year olds	1.37 (1.09, 1.71)**
15-year olds (ref)		15-year olds (ref)	
Year ^c	0.99 (0.98, 1.00)	Year ^c	0.99 (0.98, 1.00)
Year ^c × 11-year olds	1.01 (1.00, 1.02)	Year ^c × 11-year olds	1.00 (0.98, 1.01)
Year ^c × 13-year olds	1.00 (0.99, 1.02)	Year ^c × 13-year olds	1.00 (0.98, 1.01)
Year ^c × 15-year olds (ref)		Year ^c × 15-year olds (ref)	

^a Logistic regression (OR ± 95% CI). ^b Those responding that they think their body is “a bit too thin” or “much too thin” are categorised ‘perceived underweight’, with all other options “a bit too fat”, “much too fat”, “about right”, and “I don’t think about it” (the latter only available between 1990 and 1998) categorised as ‘not perceived underweight’. ^c Survey year centred on 1990. * p≤.05, ** p≤.01, *** p≤.001

Table S2. Age differences and time trends in adolescents' overweight perceptions, Scotland 1990-2014 ^{a, b}

Boys		Girls	
Model 1a			
11-year olds (ref)		11-year olds (ref)	
13-year olds	1.45 (1.33, 1.58)***	13-year olds	1.95 (1.78, 2.12)***
15-year olds	1.33 (1.21, 1.45)***	15-year olds	2.72 (2.50, 2.96)***
Model 1b			
11-year olds	0.75 (0.69, 0.83)***	11-year olds	0.37 (0.34, 0.40)***
13-year olds	1.09 (1.01, 1.19)*	13-year olds	0.72 (0.66, 0.77)***
15-year olds (ref)		15-year olds (ref)	
Model 2			
Year ^c	1.01 (1.00, 1.01)**	Year ^c	0.99 (0.99, 1.00)*
Model 3a			
11-year olds (ref)		11-year olds (ref)	
13-year olds	1.28 (1.09, 1.51)**	13-year olds	1.37 (1.18, 1.59)***
15-year olds	0.97 (0.82, 1.16)	15-year olds	2.04 (1.77, 2.35)***
Year ^c	1.00 (0.99, 1.01)	Year ^c	0.98 (0.97, 0.98)***
Year × 11-year olds (ref)		Year × 11-year olds (ref)	
Year × 13-year olds	1.01 (1.00, 1.02)	Year × 13-year olds	1.03 (1.02, 1.04)***
Year × 15-year olds	1.02 (1.01, 1.03)***	Year × 15-year olds	1.02 (1.01, 1.03)***
Model 3b			
11-year olds	1.03 (0.86, 1.22)	11-year olds	0.49 (0.43, 0.57)***
13-year olds	1.32 (1.11, 1.56)**	13-year olds	0.67 (0.58, 0.78)***
15-year olds (ref)		15-year olds (ref)	
Year ^c	1.02 (1.01, 1.03)***	Year ^c	1.00 (0.99, 1.01)
Year ^c × 11-year olds	0.98 (0.97, 0.99)***	Year ^c × 11-year olds	0.98 (0.97, 0.99)***
Year ^c × 13-year olds	0.99 (0.98, 1.00)*	Year ^c × 13-year olds	1.00 (0.99, 1.01)
Year ^c × 15-year olds (ref)		Year ^c × 15-year olds (ref)	

^aLogistic regression (OR ± 95% CI). ^b Those responding that they think their body is “a bit too fat” or “much too fat” are categorised ‘perceived overweight’, with all other options “a bit too thin”, “much too thin”, “about right”, and “I don’t think about it” (the latter only available between 1990 and 1998) categorised as ‘not perceived overweight’. ^c Survey year centred on 1990. * p≤.05, ** p≤.01, *** p≤.001

Table S3. Associations between perceived body size and body mass index, Scotland 2006-2014 ^a

	Boys			Girls		
	11-year olds	13-year olds	15-year olds	11-year olds	13-year olds	15-year olds
‘About right’ ^b (ref)						
Perceived underweight	-2.10 (-2.78, -1.41)***	-1.96 (-2.59, -1.32)***	-1.89 (-2.29, -1.49)***	-2.03 (-2.70, -1.37)***	-2.07 (-2.62, -1.51)***	-2.17 (-2.75, -1.58)***
Perceived overweight	3.41 (2.49, 4.33)***	3.08 (2.42, 3.74)***	3.56 (2.90, 4.22)***	3.02 (2.23, 3.82)***	2.92 (2.24, 3.60)***	2.61 (2.13, 3.10)***
Year ^c	-0.02 (-0.10, 0.06)	0.10 (0.03, 0.16)**	0.07 (0.01, 0.13)*	-0.05 (-0.16, 0.06)	-0.01 (-0.09, 0.08)	0.06 (-0.01, 0.14)
Year ^c × ‘About right’ ^b (ref)						
Year ^c × Perceived underweight	-0.01 (-0.14, 0.13)	-0.06 (-0.20, 0.07)	0.01 (-0.10, 0.12)	-0.05 (-0.21, 0.11)	0.04 (-0.07, 0.16)	-0.07 (-0.22, 0.08)
Year ^c × Perceived overweight	-0.08 (-0.28, 0.12)	-0.03 (-0.19, 0.14)	-0.16 (-0.30, -0.01)*	0.01 (-0.16, 0.18)	-0.09 (-0.26, 0.08)	-0.08 (-0.19, 0.04)

^aGeneral linear model ($B \pm 95\%$ CI). ^b Those responding that they think their body is “a bit too thin” or “much too thin” are categorised ‘perceived underweight’, and those responding that their body is “a bit too fat” or “much too fat” are categorised ‘perceived overweight’. ^c Survey year centred on 2006. * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$