

# School Pressure, Family Relationships and psycho-somatic health complaints – are the associations similar for boys and girls?

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# Background

- During adolescence school is gradually occupying more time and efforts in adolescent life. For some adolescents school and school work may be perceived as stressful.
- At the same time the family is still influential on adolescent life.



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- Different aspects of school and schoolwork may influence adolescent health differently, and that may also differ between sub-groups of individuals



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***Aims:*** The objective of this study is to examine the association between school pressure, family relationships, and psychosomatic health complaints, using a Swedish national sample.



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# Data

- A Swedish national sample (HBSC 2013/14) of 15 year olds was used.
- Data was collected by Statistics Sweden
- In total about 2800 students participated, implying response rate of about 75 percent.



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# Number of participants in each year group

- 11 years - 2683 (51% boys, 49% girls)
- 13 years – 2283 (50% boys and girls)
- 15 years – 2801 (51 % boys, 49% girls)



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# Outcome – Psychosomatic symptoms

i	About every day	More than once a week	About once a week	About once a month	Rarely or never
<b>Headache</b>	6.4 (183)	14.4 (413)	17.8 (510)	28.3 (812)	31.3 (897)
<b>Stomach ache</b>	4.2 (121)	15.1 (313)	29.4 (409)	34.2 (980)	34.0 (975)
<b>Backpain</b>	6.1 (176)	10.0 (288)	11.6 (332)	23.4 (672)	46.2 (1325)
<b>Felt low</b>	8.7 (248)	16.2 (464)	18.5 (530)	25.4 (729)	29.2 (836)
<b>Been irritable or in a bad mood</b>	9.5 (272)	26.8 (767)	26.9 (770)	22.9 (656)	11.9 (340)
<b>Nervous</b>	6.9 (197)	16.5 (472)	23.3 (668)	26.3 (811)	22.9 (655)
<b>Sleeping difficulty</b>	13.1 (376)	19.5 (560)	19.8 (567)	19.0 (544)	26.6 (763)
<b>Felt giddy</b>	4.1 (117)	9.1 (262)	11.4 (327)	20.6 (590)	52.4 (1501)



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Raw scores was summated into a composite measure representing psychosomatic, psychological and psysical symptoms.

- Psychometric analyses based on the rasch model revealed Differential Item Functioning (DIF) and that the response categories did not work as intended (empirical order)



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- The psychometric analyses will be revisited during later stages of analysis and not in this initial and tentative analysis



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# Means (standard deviation)

	Psychosomatic	Psychological	Physical
<b>Overall</b>	19.2 (6.99)	10.8 (4.04)	8.4 (3.65)
<b>SEX</b>			
Boys	16.8 (6.40)	9.5 (3.77)	7.4 (4.04)
Girls	21.5 (6.76)	12.0 (3.88)	9.4 (3.66)

Differences between boys and girls are significant (independent samples t-test ,  $p < 0.01$ )



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# Independent variables

How often do you feel pressured by school work?	Total n (%)	Boys n (%)	Girls n (%)
Not at all	216 (7.7)	176 (12.7)	40 (2.8)
A little	1263 (45.0)	733 (52.9)	530 (37.3)
Some	820 (29.2)	317 (22.9)	503 (35.4)
A lot	509 (18.2)	160 (11.5)	349 (24.5)



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I think school work is difficult	Total n (%)	Boys n (%)	Girls n (%)
Almost never	222 (7.9)	135 (9.7)	87 (6.1)
Rarely	542 (19.3)	307 (22.1)	235 (16.6)
Sometimes	1552 (55.3)	729 (52.4)	823 (58.1)
Often	389 (13.9)	171 (12.3)	218 (15.4)
Very often	103 (3.7)	49 (3.5)	54 (3.8)



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I have too much school work	Total n (%)	Boys n (%)	Girls n (%)
Almost never	114 (4.1)	83 (6.0)	31 (2.1)
Rarely	445 (15.9)	280 (20.4)	165 (11.7)
Sometimes	1230 (44.1)	572 (41.6)	658 (46.5)
Often	637 (22.8)	274 (19.9)	363 (25.6)
Very often	365 (13.1)	166 (12.1)	199 (14.1)



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In my family we are talking about important things	Total n (%)	Boys n (%)	Girls n (%)
Strongly Agree	902 (31.8)	401 (28.5)	501 (35.0)
Agree	1220 (43.0)	618 (44.0)	602 (42.0)
Neither agree nor disagree	491 (17.3)	253 (18.0)	238 (16.6)
Disagree	106 (3.7)	53 (3.8)	53 (3.7)
Strongly disagree	49 (1.7)	28 (2.0)	21 (1.5)



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Psychosomatic health	b (p) Total	b(p) Girls	b(p) Boys
<b>Pressured by school work</b>			
A lot	7.84 (p<0.01)	6.62 (p<0.01)	8.18 (p<0.01)
Some	4.35 (p<0.01)	3.14 (p<0.01)	4.68 (p<0.01)
A little	1.61 (p<0.01)	0.34 (p=0.740)	1.99 (p<0.01)
Not at all	0	0	0
<b>In my family we talk about important things</b>			
Strongly disagree	6.36 (p<0.01)	7.64 (p<0.01)	5.13 (p<0.01)
Disagree	3.73 (p<0.01)	3.79 (p<0.01)	3.57 (p<0.01)
Neither agree nor Disagree	2.46 (p<0.01)	3.15 (p<0.01)	1.71 (p<0.01)
Agree	1.27 (p<0.01)	1.62 (p<0.01)	0.865 (p<0.05)
Strongly agree	0	0	0
<b>Sex</b>			
Girl	3.42 (p<0.0.1)	NA	NA
Boy	0	NA	NA

Psychosomatic health	b (p) Total	b(p) Girls	b(p) Boys
<b>School work is difficult</b>			
Very often	8.21 (p<0.01)	5.74 (p<0.01)	10.55 (p<0.01)
Often	4.68 (p<0.01)	4.08 (p<0.01)	4.06 (p<0.01)
Sometimes	1.67 (p<0.01)	0.57 (p=0.44)	2.54 (p<0.01)
Rarely	0.22 (p=0.66)	-0.19 (p=0.20)	1.21 (p=0.06)
Almost never	0	0	0
<b>In my family we talk about important things</b>			
Strongly disagree	6.34 (p<0.01)	7.42 (p<0.01)	5.29 (p<0.01)
Disagree	3.48 (p<0,01)	3.27 (p<0.01)	3.98 (p<0.01)
Neither agree nor Disagree	2.48 (p<0,01)	3.15 (p<0.01)	1.66 (p<0.01)
Agree	1.31 (p<0.01)	1.64	0.887 (p=0.03)
Strongly agree	0	0	0
<b>Sex</b>			
Girl	4.59 (p<0.01)	NA	NA
Boy	0	NA	NA



Psychosomatic health	b (p) Total	b(p) Girls	b(p) Boys
<b>Too much school work</b>			
Very often	6.78 (p<0.01)	7.04 (p<0.01)	6.64 (p<0.01)
Often	4.92 (p<0.01)	5.27 (p<0.01)	4.75 (p<0.01)
Sometimes	2.57 (p<0.01)	2.59 (p=0.03)	2.73 (p<0.01)
Rarely	1.53 (p=0.02)	1.12 (p=0.38)	1.87 (p=0.02)
Almost never	0	0	0
<b>In my family we talk about important things</b>			
Strongly disagree	6.73 (p<0.01)	7.41 (p<0.01)	5.96 (p<0.01)
Disagree	4.02 (p<0.01)	4.06 (p<0.01)	3.89 (p<0.01)
Neither agree nor Disagree	2.50 (p<0.01)	3.56 (p<0.01)	1.41 (p<0.01)
Agree	1.45 (p<0.01)	1.87 (p<0.01)	0.94 (p=0.02)
Strongly agree	0	0	0
<b>Sex</b>			
Girl	4.37	NA	NA
Boy	0	NA	NA

# Conclusions



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# Thank you



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