

Perceived demands of schooling, stress and mental health:

Changes from grade 6 to grade 9
as a function of gender and cognitive ability

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Background

- Research findings indicate:
 - Increase of mental illness overtime
 - Increase of mental illness with age
 - Significantly higher extent of mental illness among girls than boys at the end of primary school and in secondary schools
- A wide range of explanations have been suggested, some of which focus on the school's changing role over time, and at different ages



A longitudinal study based on UGU data

- Students in 6th grade were given a questionnaire and cognitive tests (N = 8603). Questions about perceived school demands and stress
- In 9th grade they answered the same questions as in grade 6, and also some additional questions about psychosomatic symptoms and mental distress



Research Questions

1. How do changes in perceived school demands and stress between Grade 6 and Grade 9 relate to one another and to mental health problems?
2. How do gender and cognitive ability influence level and change in perceived school demands and stress, and how do these student characteristics relate to mental health problems?



Analysis of change by structural equation modeling

- Growth curve modeling was used to estimate starting points in 6th grade (intercept) and change between 6th and 9th grade (slope), in the form of latent variables.
- Three blocks of variables
 - Gender and cognitive ability
 - School demands and stress in 6th and 9th grade
 - PsySom and Distress in 9th grade



Variables - Perceived school demands, stress and mental health

Demands (3 statements)

- It's hard for me to keep up with things during lessons in school
- I give up when tasks are too difficult
- I need more help than I get from the teacher

Stress (1 statement)

- I feel stressed at school

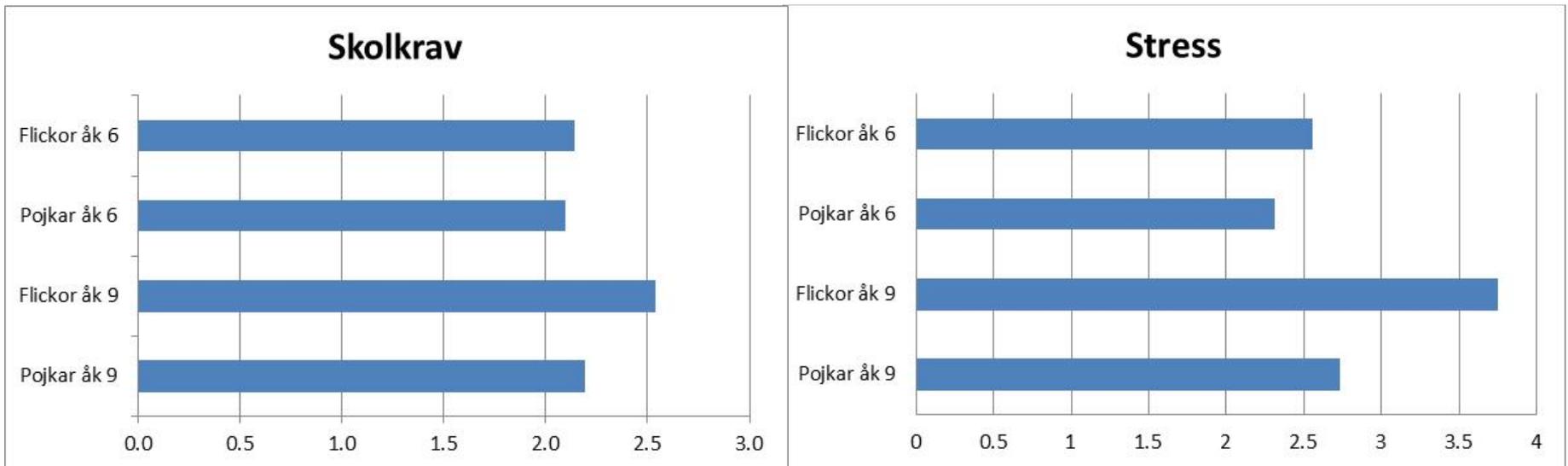
Mental health (13 statements)

- *Psychosomatic problems* (8 statements: Difficulties concentrating, Difficulties sleeping, Head ache, Stomach ache, Felt tense, Poor appetite, Felt sad, Felt giddy). From the PSP-scale (Hagquist, 2008)
- *Emotional distress* (5 statements: Felt irritated, Felt nervous, Felt down, Conflicts with peers, Withdrawn from peers).



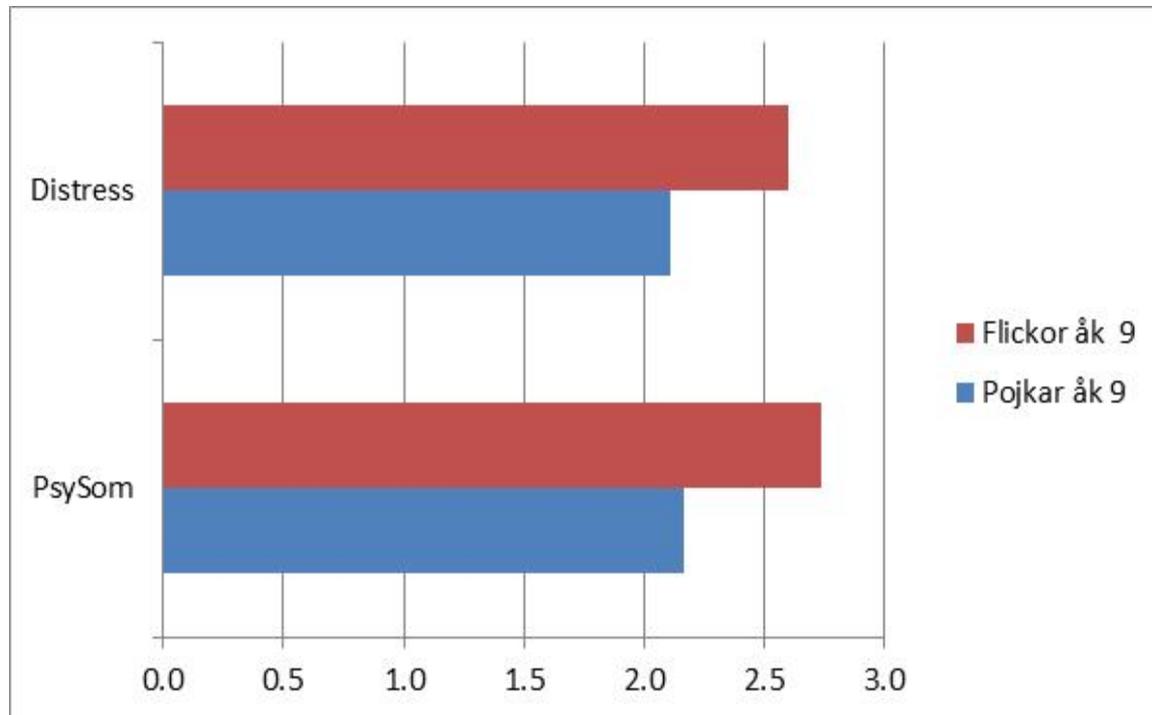
Mean values School demands and Stress

Flickor=girls
Pojkar=boys



Mean values PsychoSomatic and Distress

Flickor=girls
Pojkar=boys



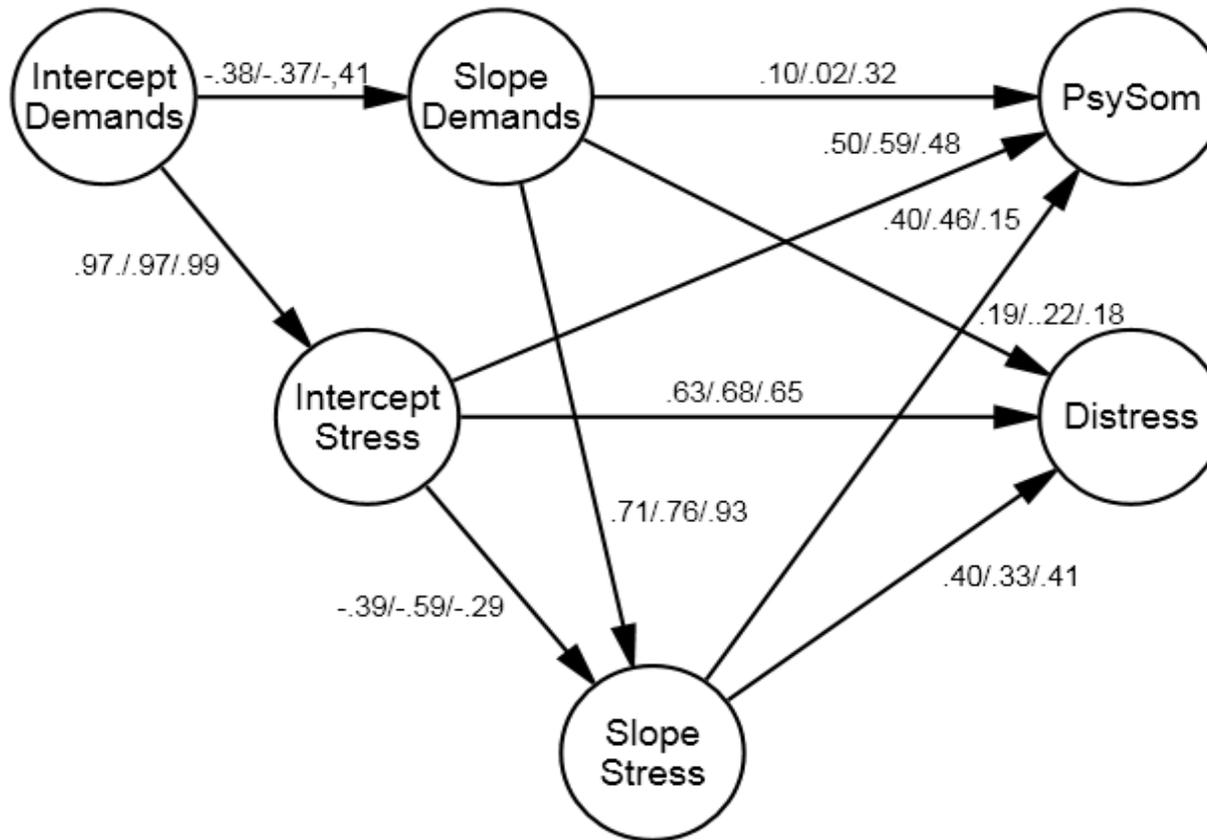


Figure 1. The fitted model for the relations among the latent growth variables and mental health factors estimated for the total sample and separately for girls and boys. Estimates are presented in the order total/girls/boys.



Findings – demands and stress

- Major increases in perceived demands and stress from 6th to 9th grade.
- The psychosomatic and emotional distress factors were related to stress in 6th grade (0.50 and 0.63) and to the increasing levels of stress in 9th grade (both 0.40).



Findings – Gender

- No difference between boys and girls in 6th grade with respect to perceived academic demands, but a somewhat higher level of stress for girls.
- From 6th to 9th grade there was a substantially larger increase in the perceived demands for girls and an even larger increase in the gender difference in stress.
- Girls reported more mental health problems than boys in grade 9. The gender difference in mental health problems in 9th grade was completely mediated by girls' larger increases in perceived stress and academic demands from 6th to 9th grade.



Conclusion

- Can these results explain the increased level of self-reported mental health problems among adolescents in Sweden?
- We do not in this study have data on changes in perceived academic demands and stress across different birth cohorts.
- However, if we assume that demands and stress has increased across cohorts, this study presents a credible mechanism to at least partly explain the increase in mental health problems.

