

## Master thesis introduction

**The effect of socioeconomic status on perceived school pressure. With a secondary focus on the role of parental support in this relation.**

*This thesis has been written as a study assignment under the supervision of an Utrecht University teacher. Ethical permission has been granted for this thesis project by the ethics board of the Faculty of Social and Behavioral Sciences, Utrecht University, and the thesis has been assessed by two university teachers. However, the thesis has not undergone a thorough peer-review process so conclusions and findings should be read as such.*

Name: Sander Plaggenburg

Student number: 5680182

Supervisor: Gerdien van Eersel

Master's program: Youth Studies

Date: 27-01-2023



## **Abstract**

The last decade adolescents perceive a greater amount of school pressure. Experiencing school pressure can lower achievements and affect the mental health of adolescents. Few studies have been done regarding socio-economic status (SES) as a factor associated with perceived school pressure. Most are non-Western studies. Therefore, the present study investigated the relationship between SES and perceived school pressure, with a secondary focus on the role of parental support. The dataset of the cross-sectional study of HBSC 2021 was used. Which took a sample of 7258 Dutch adolescents in schools ( $M = 13.9$ ,  $SD = 1.9$ ). Contrary to predictions, SES has no direct association with perceived school pressure when controlled for age and gender. Perceived school pressure was lower in adolescents who receive more parental support, regardless of age or gender. Being older and a girl showed a higher amount of perceived school pressure. The study concludes that to understand perceived school pressure, important factors as parental support must be considered as well as age and gender, while SES is not an important factor. Future research should investigate what sort of parental support is most influential (e.g., emotional or material) and what differentiates amount of pressure based on age and gender.

## **Abstract Dutch**

Het afgelopen decennium ervaren adolescenten een hogere schooldruk. Het ervaren van schooldruk kan de prestaties verminderen en de mentale gezondheid van adolescenten beïnvloeden. Er is weinig onderzoek gedaan naar sociaaleconomische status (SES) als factor die verband houdt met ervaren schooldruk. De meeste onderzoeken zijn niet-westers. Daarom onderzocht deze studie de relatie tussen SES en ervaren schooldruk, met een secundaire focus op de rol van ouderlijke ondersteuning. Er werd gebruik gemaakt van de gegevens van het cross-sectioneel onderzoek HBSC 2021, die een steekproef van 7268 Nederlandse adolescenten op school nam ( $M = 13.9$ ,  $SD = 1.9$ ). Tegenstrijdig met de voorspelling heeft SES geen verband met ervaren schooldruk wanneer er rekening wordt gehouden met leeftijd en geslacht. Ervaren schooldruk was lager bij adolescenten die meer ouderlijke ondersteuning krijgen, ongeacht leeftijd of geslacht. Oudere adolescenten en meisjes ervaren een hogere schooldruk. De studie concludeert dat om ervaren schooldruk te begrijpen, belangrijke factoren zoals ouderlijke ondersteuning, leeftijd en geslacht in acht genomen moeten worden, terwijl SES niet belangrijk blijkt te zijn. Toekomstig onderzoek zou moeten onderzoeken welke vorm van ouderlijke ondersteuning het meest invloedrijk is (emotioneel of materieel) en wat de verschillen zijn in ervaren schooldruk op basis van leeftijd en geslacht.

## Introduction

Achievements in school are important for every person's future, and influences people's life course expectancies. Schools can also provide a context in which the shaping of youth's self-esteem, self-efficacy and a sense of control over their lives takes place (Stewart, Sun, et al., 2004). People or things can either put pressure on school performance, for example parents having high expectations of their child, or can relief pressure on school performance, for example in the form of parental support. Adolescents experience an increased amount of school pressure the last few years (Löfstedt, García-Moya, et al., 2020; Moor, Winter, et al., 2020). Perceived school pressure or school related stress can in turn negatively influence school performance and mental health (Kaplan, Liu and Kaplan, 2005; Subramani and Kadiravan, 2017). Many things can influence the amount of school pressure someone experiences. One of those things is socioeconomic status (SES). SES is defined as the status or prestige of an individual or an individual's family owing to the possession of certain (social) resources, capabilities, or wealth (American Psychological Association, 2007). Treating youth from different SES backgrounds the same way might not generate the same outcomes and thus might not be fair. Therefore, SES can be an interesting factor on the level of perceived school pressure. The aim of this study is to examine what the effect is of SES on perceived school pressure. Additionally, it will be examined what the effect is of SES on parental support and in turn what effect parental support has on perceived school pressure.

## Literary review

For this study the academic pressure that youth perceive is defined as *perceived school pressure*. Other studies referenced to may have defined it as school related stress, school stress, academic pressure or stress, but for the sake of clarity it will be defined here as perceived school pressure. To make sure the definition used here is adequate, other factors that create school related stress that are not related to academic performance are not included.

The socioeconomic status of youth has an effect on their school achievements (Sirin, 2005) and could have an effect on their perceived school pressure. For example, difference in SES leads to a difference in the way families invest in their children's learning (providing books, owning a computer, paying for extra lessons) and it might lead to differences in access to different quality schools (Conger and Donnellan, 2007). A lower SES family is a consistent predictor of mental health problems in youth (Bøe, Øverland, et al. 2012). Problems with mental health might also influence a person's ability to deal with stress and pressure

(Subramani and Kadiravan, 2017). It is possible that youth from different SES backgrounds perceive school, and thus school pressure, differently and therefore require different methods to make sure they are taught optimally and receive equal chances to reach their potential.

The effect of SES on someone's experience of perceived school pressure can vary in a number of different ways. According to the relative risk aversion theory (Goldthorpe, 1996), academic ambitions must be seen as relative to familial SES. Someone from a high SES family might feel pressure to be able to equal their family's educational levels. On the other hand, someone from a low SES family might feel pressure to be able to be better than their family to get a better SES. Another possibility is that someone that has a low SES has problems in their lives unrelated to school. This could result in lower perceived school pressure because school might not be their highest priority.

Parental support is another factor that influences academic achievements (Kristjansson and Sigfúsdóttir, 2009; Chohan and Khan, 2010). It can influence how pressured youth are to have higher academic achievements (Acharya and Joshi, 2011). This might translate into youth perceiving different amounts of school pressure depending on the parental support they receive. According to the conservation of resources theory, perceived stress or pressure is embedded in a social context (Hobfoll, 1988). Culture and important people in someone's life can create goals. They play an important role as a resource that can affect the amount of perceived pressure to achieve that goal. In terms of perceived school pressure, this means that the interactions youth have with their family would be related to the amount of pressure they perceive. In accordance with this theory, multiple studies have found that parental support plays an important role in perceived school pressure (Deb, Strodl and Sun, 2015; Englund, Egeland, and Collings, 2008; Pang, 1991).

It can also be assumed that parental support differentiates between different levels of SES (Elffers, 2011; Malone, 2017; Roubinov and Thomas-Boyce, 2017). This means that parents from a higher SES family give a different amount of support to their children than the parents of a lower SES family. Multiple studies found that higher SES families tend to give more parental support than families with a lower SES (Elffers, 2011; Roubinov and Thomas-Boyce (2017). This raises the possibility of parental support having a mediating effect on the potential relation between SES and perceived school pressure. This could be seen in the study of Sohr-Preston et al. (2013), which shows that families with a higher SES tend to have more knowledge of education and therefore have bigger and more specific expectations about what education is supposed to be. This then in turn affects the way parents motivate their children

to learn (Sohr-Preston, Scaramella et al., 2013), which possibly changes their perceived school pressure.

Gender plays a role in the amount of perceived school pressure and parental support. A study by Löfstedt and colleagues (2020) found that girls experience a higher amount of school pressure than boys. Other studies found that boys receive less parental support than girls (Kristjansson and Sigfúsdóttir, 2009; Rogers, Theule, et al., 2009).

Age plays a role in the amount of perceived school pressure and parental support. It has been shown that the effectiveness of parental support changes over the life course, requiring a different approach to maintain its effectiveness possibly resulting in less support during adolescence (Jeynes, 2014). Another possibility is that when age increases the support decreases because youth are seen more as adults. Furthermore, the perceived school pressure seems to increase with age (Klinger, Freeman, et al., 2015).

Both gender and age can confound the relation between parental support and perceived school pressure. They will therefore be used as controlling variables in this study.

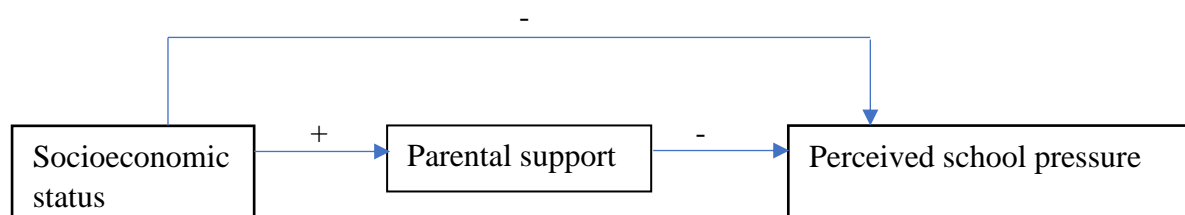
### **The current study and the gap**

Firstly, this study aims to research the effect of SES on perceived school pressure. There are few studies about the relation between SES and perceived school pressure. It could be an important relation that should be better understood. Secondly, this study wants to investigate the difference in parental support between SES levels and how this might relate to perceived school pressure. There are few studies about this. A better understanding of parental support in different SES levels can benefit the perceived school pressure. The potential effects of parental support on perceived school pressure will be controlled for gender, age and SES.

The conceptual model of this study is illustrated in Figure 1.

### **Figure 1**

*Conceptual model of the interactions between the dependent variable and the explanatory variables.*



Based on the literature several hypotheses can be formulated. The first hypothesis (H1) is that SES has a negative effect on perceived school pressure. This means that a higher level of SES will lead to a lower level of perceived school pressure. The second hypothesis (H2) is that SES has a positive effect on parental support. This means that if the level of SES increases the level of parental support also increases. The third hypothesis (H3) is that parental support is negatively associated with perceived school pressure. This means that a higher level of parental support will lead to a lower level of perceived school pressure. The last hypothesis (H4), which will combine the outcomes of hypotheses 2 and 3, is that parental support has a mediating effect on the association between SES and perceived school pressure.

## Methods

### Sample

The HBSC 2021 dataset sample that was used had 7258 participants ( $M = 13.9$  years old,  $SD = 1.9$ ) with 51% boys. HBSC collected data from primary (*basisschool*) and secondary (*middelbare school*) schools in The Netherlands (Boer, Dorselaer, et al., 2022). The sample was taken by randomly selecting schools from files of *Dienst Uitvoering Onderwijs (DUO)*. It was reviewed to see whether the sample accurately represented of urban and rural areas. After this step, school classes of children were randomly selected based on the size of the schools. Small schools (<500 students) had 3 classes randomly selected, average schools (550-1000 students) had 4 classes randomly selected, and large schools (>1000) had 5 classes randomly selected. Classes with fewer than 10 students, or classes consisting of children with learning disabilities were excluded. All levels of education (vmbo, havo, vwo) within secondary school were included in the sample. The number of participants that was used per variable varies is based on factors such as missing data. For example, not every respondent has answered every question correctly or fully. This means there is missing data. For example, question 68 in part of the *perceived school pressure* variable and is has approximately 1786 respondents who have not answered the question correctly or fully. This means that the sample size for *perceived school pressure* is approximately 1786 less than 7258.

### Design

The design of this study is a cross-sectional design. The data is collected from a single point in time. This means that the information on specific variables that is gathered can only

be used to make inferences about possible relationships and cannot be interpreted as causalities.

## **Procedure**

A questionnaire was given to children in the last year of primary school and to the adolescents from every year of secondary school. The questionnaires were administered by research assistants from Trimbos. The primary school participants received the questionnaire on paper. The secondary school participants received the questionnaire digitally. In case there were too few computers capacity at a school, then the participants would receive the questionnaire on paper as well. The questionnaires given to children attending primary schools were shorter and did not include questions regarding for example sexuality and drugs.

The HBSC study was ethically approved by the *Ethische Toetsingscommissie* of the Trimbos-institute (Boer, Dorsselaer, et al., 2022). At least a week before the questionnaire was administered the parents of the selected children were informed about the study and were requested to give their permission to include their children in the study. At the start of the procedure the students were explained that participation is voluntary and that they were allowed to leave questions unanswered if they did not feel comfortable answering them. Anonymity was guaranteed. In case the students had any questions or required help as a result of participation in the study, they were referred to the GGD website ([www.jouwggd.nl](http://www.jouwggd.nl)). The ethical approval of this specific master thesis was also acquired through the Utrecht University Student Ethics Review.

## **Measurement instruments**

### *Dependent variable*

#### Perceived school pressure

Measured by 9 items asking about pressure and stress participants experience regarding school. The first item had three answering options: not at all – a little – quite a lot – a lot. The next 8 items could be rated: A lot of stress – a little stress – average stress – quite a lot of stress – a lot of stress. The score for perceived school pressure was the mean score of 9 items ( $M = 2.6$ ,  $SD = 1.0$ ,  $N = 5471$ ). A higher score meant a higher amount of perceived school pressure. The reliability of this scale in the study is considered as strong (Cronbach's Alpha = .910).

### *Explanatory variables*

#### SES

Measured by six items asking about concrete possessions, home characteristics and number of foreign holidays. Together they form the FAS-III (Torsheim, Cavello et al., 2016). One item was removed regarding the frequency of holidays a family because of the covid restrictions. One item was added regarding the perception of wealth the participant had regarding their family. The SES score was based on a sum score with a minimum score of 0 and a maximum score of 14, with a low score indicating a lower SES and a higher score indicating a higher SES. The mean score was  $M = 9.7$  ( $SD = 1.6$ ,  $N = 6827$ ). The reliability of this scale in the study is considered as poor (Cronbach's Alpha = .472). However, removing specific items does not improve reliability.

#### Parental Support

Measured by 4 items asking about the relationship with parents rated on a Likert scale 1-7 (Likert, 1932). The score for this variable was the mean score of 4 items ( $M = 5.9$ ,  $SD = 1.4$ ,  $N = 7220$ ). A higher score meant a higher amount of parental support the participants reported to receive. The reliability of the scale in the study is considered as strong (Cronbach's Alpha = .920).

### *Control variables*

#### Gender

Participants were asked whether they are a boy or a girl.

#### Age

Participants were asked in which year they were born.

### **Data analysis**

All analyses are performed within the SPSS v28 statistic software package. The data analyses that were used are multiple linear regression, simple linear regression and a mediation analysis using PROCESS (Hayes, 2017). Assumptions regarding the data when conducting the regressions were checked by multiple analyses.

To check whether the data of the dependent variable, perceived school pressure, was normally distributed the data was plotted and skewness was measured and a Kolmogorov-



Smirnov test was used. The dependent variable was not normally distributed (skewness = .196). However, the central limit theory states that in studies with large sample sizes non-normal distribution is acceptable (Field, 2018). This study has a large sample size ( $n = 7258$ ) and therefore this assumption is met.

The assumption of homoscedasticity was checked by the use of a scatterplot. This confirmed that the assumption was met.

The assumption that the errors from the regression line are normally distributed. This assumption is met.

All the explanatory variables must be quantitative or categorical with a minimum of two categories. Additionally, the outcome variables must be quantitative, continuous and unbounded. This assumption is met.

The assumption of additivity and linearity is met. It was checked by using a p-p plot analysis.

Multicollinearity was checked by using a correlation table at checking the VIF scores of the explanatory variables. The assumption was consequently met.

The assumption that errors should be normally distributed is met. This was done using a histogram plot of errors.

The assumption that all the errors are independent is met. The residuals are normally distributed. Additionally, this assumption is met because every participant had to fill in the questionnaire individually.

Lastly, the assumption that explanatory variables are not correlated with external variables. This is partly accounted for by adding control variables and thus considered as met. Although, it is nearly impossible that all possible external variables are accounted for. It is therefore important to realize the potential influence of other external variables on the dependent variable.

## **Results**

This study aimed to investigate the relationship of SES and parental support with perceived school pressure. Moreover, it was investigated whether SES could lead to a difference in parental support and how this might relate to perceived school pressure. Additionally, the relationship of parental support with perceived school pressure was also controlled for gender and age. The following table (Table 1) shows a correlation table for all the variables, which are not corrected yet. It shows that all variables are significantly

associated with perceived school pressure and that SES is significantly associated with parental support.

Table 1. *Correlations among variables*

	1.	2.	3.	4.	5.
<b>1. Perceived school pressure</b>					
<b>2. SES</b>	-.03*				
<b>3. Age</b>	.15*	.01			
<b>4. Gender</b>	.29*	.04*	-.02		
<b>5. Parental Support</b>	-.23*	.12*	-.09*	-.04*	

Note.  $N = 5361$ . \*  $p < .01$

The first and third hypotheses (H1 and H3) could be tested simultaneously by performing a hierarchical multiple regression analysis. The dependent variable perceived school pressure was tested for a potential association with SES and then with parental support while controlling for age and gender. The first step of the regression consisted of SES, and the second step consisted of age and gender and parental support was added as the third step of the regression. This order was used to control for age and gender on the relationship between SES and perceived school pressure separately from parental support.

The overall regression model explains approximately 15% of variance in perceived school pressure ( $R^2 = .149$ ,  $F(4, 5356) = 234.81$ ,  $p < .001$ ). In the first model, SES explained 0.1% of the variance and SES was negatively associated with perceived school pressure,  $B = -.029$ ,  $t = -2.12$ ,  $p = .034$ . In the second model SES, age and gender explain 11% of variance in perceived school pressure, however only age and gender were significantly associated with perceived school pressure and SES was no longer associated with perceived school pressure. Being older and being a girl was associated with a higher score of perceived school pressure (Table 2). After adding parental support and controlling for age, gender and SES it was found that in the third model parental support explained approximately 4% of variance in perceived school pressure. In this model, again, only parental support was significantly associated with perceived school pressure, with a higher score on parental support being associated with a lower score on perceived school pressure, and SES was not. Additionally, age and gender are significantly associated with perceived school pressure. Consequently, these results support the first and third hypotheses (H1 and H3). However, the direct association of the first hypothesis (H1) is no longer significant when other variables are added.

Table 2. Hierarchical regression analysis showing age, gender, SES and parental support as predictors of perceived school pressure.

Variable	Cumulative		Simultaneous	
	<i>R</i> <sup>2</sup> -change	<i>F</i> -change	<i>B</i>	<i>p</i>
Step 1				
SES	.001	<i>F</i> (1, 5359)= 4.51*	.01	.4
Step 2				
Age	.11	<i>F</i> (2, 5358)= 211.58**	.14	<.001
Gender			.28	<.001
Step 3				
Parental Support	.15	<i>F</i> (2, 5356)= 264.93**	-.21	<.001

Note. \**p* <.05 \*\**p* <.001. Simultaneous = all models/steps together.

The second and fourth hypothesis can be analysed through a mediation analysis. The last hypothesis (H4) posits a mediating effect of parental support between the potential association of SES and perceived school pressure. Seeing that the first hypothesis, which suggested a direct association between SES and perceived school pressure, was supported, a mediation of parental support between SES and perceived school pressure could exist. A mediation analysis was conducted through PROCESS (Hayes, 2017). The outcome variable was perceived school pressure and the predictor variable was SES. The mediating variable was parental support and the control variables were age and gender. The indirect effect of SES on perceived school pressure was found to be statistically significant and shows to be a competitive mediation. This confirms the fourth hypothesis (H4). The exact results can be seen in Table 3.

Table 3. Mediation Analysis Summary

Relationship	Total Effect	Direct Effect	Indirect Effect	Confidence Interval	
				Lower Bound	Upper Bound
SES - Psupport - Pspress	-.0096	.0024	-.0120*	-.0155	-.0088

Note. \*Significant; Psupport = parental support, Pspress = perceived school pressure.

The mediation analysis also shows that it is a full mediation. This means that there is no direct effect between SES and perceived school pressure. The indirect effect means that SES affects parental support and parental support affects perceived school pressure.

Additionally confirming the second hypothesis (H2). It shows that SES is associated with parental support and explains 2% of the variance while controlled for age and gender,  $R^2 = .02$ ,  $F(3, 5357) = 45.55$ ,  $p < .001$ . The level of SES significantly and positively predicts the amount of parental support someone receives,  $B = 0.1$ ,  $t = 9.16$ ,  $p < .001$ .

## Discussion

There is an increase in perceived school pressure under adolescents (Löfstedt, García-Moya, et al., 2020; Moor, Winter, et al., 2020). Seeing that pressure to perform well at school can negatively influence school performance and adolescent's mental health, it is important to understand what potential influences lie behind that experience (Kaplan, Liu and Kaplan, 2005; Stewart, Sun, et al., 2004). The possibility of identifying important factors that affect perceived school pressure can create opportunities to decrease that pressure by manipulating those factors. The aim of this study is to research the effect of socio-economic status on perceived school pressure and to see whether parental support played a role in this relationship. This was done by testing four hypotheses.

The initial results found that SES is, as predicted (H1), negatively associated with perceived school pressure. Having more familial wealth therefore means that a lower amount of perceived school pressure is expected. Still, the association only explained 0,1% of the variance and when controlling for age and gender there no longer is an association between SES and perceived school pressure. This could indicate an association between SES and age and gender. Which is strange and should be further investigated. It should be noted that the reliability of the SES scale is poor. Which makes it difficult to interpret the results. There are few studies that investigated this relationship, therefore it is difficult to state how this relates to literature. However, if the negative association was present, it is in line with the relative risk aversion theory from Goldthrope (1996), which states that academic ambitions must be seen as relative to familial SES. This initial result means that adolescent with lower SES feel more pressure to equal their parents' education and SES (Davies, Heinesen, et al., 2002). These findings could indicate that more wealthy families' capability of investing more in their children's education (Conger and Donnellan, 2007) causes less perceived school pressure in their children.

Regarding the effect of SES on parental support, the findings of this study are in line with the second hypothesis (H2) and previous research (Elffers, 2011; Malone, 2017; Roubinov and Thomas-Boyce, 2017). They show that SES is positively associated with

parental support. These findings indicate that a different level of familial wealth would result in receiving different amounts of parental support. These findings support the suggestion that parents with a higher income provide their children with more support (Elffers, 2011; Roubinov and Thomas-Boyce (2017). Higher income families are better capable of investing in educational material or better schools (Conger and Donnellan, 2007). Fingerman et al. (2015) found that parental support of more wealthy families consists of more emotional support as well as material support. These results indicate that when researching parental support, SES should be considered as an important factor. Adolescents from lower SES families for example might in this case benefit more from external material support than adolescents from higher SES families.

The findings regarding the effect of parental support on perceived school pressure are in line with the third hypothesis (H3) and the literature. They indicate that a difference in parental support is associated with a difference of perceived school pressure (Deb, Strodl and Sun, 2015; Englund, Egeland, and Collings, 2008; Pang, 1991). More specifically, the findings show a negative association. When adolescents receive more parental support they perceived a lower amount of perceived school pressure. The conservation of resources theory states that perceived stress or pressure is embedded within social context (Hobfoll, 1988). In this case, parents form an important resource that can affect the perceived school pressure by for example providing emotional support, material support or on the other hand pressure the importance of achieving certain academic goals. It has been found that emotional warmth from the parents plays an important role in reducing the perceived school pressure (Luo, Deng, and Zhang, 2020). Future research should focus on teaching parents how they can support their child adequately.

The relationship between parental support and perceived school pressure was controlled for age and gender. It was found that both of these factors had a big influence on perceived school pressure. When adolescents are older they experience more school pressure. It was also found that girls perceived more school pressure than boys. This is interesting because according to the literature, girls receive more encouragement and support from their parents than boys (Kristjansson and Sigfúsdóttir, 2009; Rogers, Theule, et al., 2009). So, literature would suggest a negative association between parental support and perceived school pressure. That view would match with the part of the conservation of resource theory in which important people can create pressure by emphasizing certain goals (Hobfoll, 1988). In relation to gender that indicates that girls value the influence of parents on setting educational goals more than boys.

Regarding age, getting good grades to be able to access a higher level of education in the next school gets more important with age. Nurmi (1991) shows that development of future orientation and planning increases with age.

Other factors can also play a role in determining the amount of perceived school pressure. Cultural influences can affect boys and girls differently (Basow and Rubin, 1999; Giuliano, 2020). Additionally, girls could experience more perceived school pressure because they might value a good education more. This can be a result of them thinking they need to work harder than boys for the same job or income (Giuliano, 2020). Moreover, biological factors could play a role. Further research towards more potential influential factors is necessary to map how perceived school pressure is affected between boys and girls.

Hypothesis 4 (H4) suggests that the effect of SES on perceived school pressure is only present through parental support. The findings confirm this and is in line with literature (Sohr-Preston, Scaramella et al., 2013). There is no direct effect of SES on perceived school pressure. However, SES is associated with parental support and parental support is associated with perceived school pressure. Adding age and gender removed the association of SES with perceived school pressure but kept the association of SES and parental support. These findings indicate that when investigating the relationship between parental support and perceived school pressure, SES should be considered as an important factor in determining parental support. A difference in SES could lead to a difference in the parents' ability to support their child. For example, differently paying jobs can increase or decrease the parent's ability to materialistically support their child.

### **Strengths and limitations**

This study is based on the HBSC dataset from 2021 (Boer, Dorsselaer, et al., 2022), which means that this study mostly has the same general strength and weaknesses as the HBSC study.

This study uses a large dataset which is an accurate representation of the adolescent population of the Netherlands. This strength results in an adequate ability to generalize findings based on this dataset to the general population. Another strength is the high reliability of the different scales used to measure specific factors. Specifically within this study the reliability of the scales for parental support and perceived school pressure were very strong. This dataset can therefore accurately measure and use the amount of parental support and perceived school pressure.

The poor reliability of the SES scale is a limitation. Questions in the questionnaire do a poor job of measuring SES. Using a scale with a poor reliability can lead to results that are more difficult to generalize to a population. Noting that SES could be an important predictor for different aspects in a person's life, it is important to be able to measure SES reliably. A pre-existing scale was used to measure SES, which was the FAS-III (Torsheim, Cavello et al., 2016). This scale was adjusted because of covid-19. Also, another question was added (regarding wealth perception), which did not improve the reliability. For future instances it might be better to look for or create a new scale that measures SES.

A second limitation of this study is that it only included adolescents that attend regular primary and secondary schools. Therefore, no statements can be made for adolescents in special education, or adolescent that are absent from school for a long time and their perceived school pressure.

Furthermore, within the Dutch education system it is possible to graduate secondary school at the age of sixteen. About a fifth of the Dutch 16-year-old adolescents attends the next form of education or is working. This means that this study lacks in its ability to accurately represent 16 years old, and older, adolescents.

Another limitation of this study is that potential participants did not participate because of certain restrictions due to covid-19. However, the group of potential participants is not expected to differ much from the group of participants that did participate (Boer, Dorsselaer, et al., 2022). Nevertheless, at this moment it is impossible to say that with total confidence.

Lastly, the data was acquired by self-report. A self-report study has the risk of its participants reporting socially desirable answers (Krumpal, 2013). Having participants answering in such a manner would result in less valid findings, but no indications were found of this.

## **Conclusion and implications**

It can be concluded that parental support, age and gender are large influences on perceived school pressure. Additionally, SES showed not to be an important factor for perceived school pressure. It is therefore important that when attempting to influence the amount of perceived school pressure you should consider these factors. Teaching parents how they can adequately support their child can have positive implications regarding their perceived school pressure and might consequently have positive implications for their

academic achievements and mental health. Future studies could focus on what kind of parental support works best, for example emotional support versus material support.

Gender and age are something to keep in mind when addressing perceived school pressure. Older adolescents, and girls, experience more school pressure and consequently might require more resources to combat this. Future research should be aimed at what adolescents of different ages or genders find important in life or in school and how this might affect perceived school pressure.

This study shows the importance of parental support, age and gender on perceived school pressure. It contributes to the efforts of decreasing school pressure and improving adolescents' academic achievement and mental health.



## **References**

- Acharya, N., & Joshi, S. (2011). Achievement motivation and parental support to adolescents. *Journal of the Indian Academy of applied psychology*, 37(1), 132-139.
- American Psychological Association, Task Force on Socioeconomic Status. (2007). Report of the APA task force on socioeconomic status. <https://www.apa.org/pi/ses/resources/publications/task-force-2006.pdf>
- Basow, S. A., & Rubin, L. R. (1999). Gender influences on adolescent development. In N. G. Johnson, M. C. Roberts, & J. Worell (Eds.), *Beyond appearance: A new look at adolescent girls* (pp. 25–52). American Psychological Association. <https://doi.org/10.1037/10325-001>
- Bøe, T., Øverland, S., Lundervold, A. J., & Hysing, M. (2012). Socioeconomic status and children's mental health: results from the Bergen Child Study. *Social psychiatry and psychiatric epidemiology*, 47(10), 1557-1566. <https://doi.org/10.1007/s00127-011-0462-9>
- Boer, M., van Dorsselaer, S. A. F. M., de Looze, M., de Roos, S. A., Brons, H., van den Eijnden, R., ... & Stevens, G. (2022). HBSC 2021. Gezondheid en welzijn van jongeren in Nederland.
- Chohan, B. I., & Khan, R. M. (2010). Impact of parental support on the academic performance and self concept of the student. *Journal of Research and reflections in Education*, 4(1), 14-26.
- Conger, R. D., & Donnellan, M. B. (2007). An interactionist perspective on the socioeconomic context of human development. *Annual review of psychology*, 58, 175. <https://doi.org/10.1146/annurev.psych.58.110405.085551>
- Davies, R., Heinesen, E., & Holm, A. (2002). The relative risk aversion hypothesis of educational choice. *Journal of population economics*, 15, 683-713. <https://doi.org/10.1007/s001480100087>
- Deb, S., Strodl, E., & Sun, H. (2015). Academic stress, parental pressure, anxiety and mental health among Indian high school students. *International Journal of Psychology and Behavioral Science*, 5(1), 26-34. DOI: 10.5923/j.ijpbs.20150501.04

- Elffers, L. (2011). *The transition to post-secondary vocational education: students' entrance, experience, and attainment*. Amsterdam
- Englund, M. M., Egeland, B., & Collins, W. A. (2008). Exceptions to high school dropout predictions in a low-income sample: Do adults make a difference?. *Journal of social issues*, 64(1), 77-94. <https://doi.org/10.1111/j.1540-4560.2008.00549.x>
- Field, A. (2018). *Discovering Statistics Using IBM SPSS Statistics*. SAGE Publications Limited.
- Fingerman, K. L., Kim, K., Davis, E. M., Furstenberg Jr, F. F., Birditt, K. S., & Zarit, S. H. (2015). "I'll give you the world": Socioeconomic differences in parental support of adult children. *Journal of Marriage and Family*, 77(4), 844-865.  
DOI: 10.1111/jomf.12204
- Giuliano, P. (2020). Gender and culture. *Oxford Review of Economic Policy*, 36(4), 944-961.  
<https://doi.org/10.1093/oxrep/graa044>
- Goldthorpe, J. H. (1996). Class analysis and the reorientation of class theory: The case of persisting differentials in educational attainment. *British Journal of Sociology*, 47, 481-505. <https://doi.org/10.2307/591365>
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford publications.
- Hobfoll, S. E. (1988). *The ecology of stress*. Taylor & Francis.
- Jeynes, W. H. (2014). Parental involvement that works... because it's age appropriate. *Kappa Delta Pi Record*, 50(2), 85-88. <https://doi.org/10.1080/00228958.2014.900852>
- Kaplan, D. S., Liu, R. X., & Kaplan, H. B. (2005). School related stress in early adolescence and academic performance three years later: The conditional influence of self expectations. *Social Psychology of Education*, 8(1), 3-17.  
<https://doi.org/10.1007/s11218-004-3129-5>
- Klinger, D. A., Freeman, J. G., Bilz, L., Liiv, K., Ramelow, D., Sebok, S. S., ... & Rasmussen, M. (2015). Cross-national trends in perceived school pressure by gender and age from 1994 to 2010. *The European Journal of Public Health*, 25(suppl\_2), 51-56.  
<https://doi.org/10.1093/eurpub/ckv027>

- Kristjansson, A. L., & Sigfúsdóttir, I. D. (2009). The role of parental support, parental monitoring, and time spent with parents in adolescent academic achievement in Iceland: A structural model of gender differences. *Scandinavian journal of educational research*, 53(5), 481-496. <https://doi.org/10.1080/00313830903180786>
- Krumpal, I. (2013). Determinants of social desirability bias in sensitive surveys: a literature review. *Quality & quantity*, 47(4), 2025-2047. DOI: 10.1007/s11135-011-9640-9
- Kulakow, S., Raufelder, D., & Hoferichter, F. (2021). School-related pressure and parental support as predictors of change in student stress levels from early to middle adolescence. *Journal of Adolescence*, 87, 38-51. <https://doi.org/10.1016/j.adolescence.2020.12.008>
- Likert, R. (1932). A technique for the measurement of attitudes. *Archives of psychology*.
- Löfstedt, P., García-Moya, I., Corell, M., Paniagua, C., Samdal, O., Välimaa, R., ... & Rasmussen, M. (2020). School satisfaction and school pressure in the WHO European region and North America: an analysis of time trends (2002–2018) and patterns of co-occurrence in 32 countries. *Journal of adolescent health*, 66(6), S59-S69. <https://doi.org/10.1016/j.jadohealth.2020.03.007>
- Luo, Y., Deng, Y., & Zhang, H. (2020). The influences of parental emotional warmth on the association between perceived teacher–student relationships and academic stress among middle school students in China. *Children and Youth Services Review*, 114, 105014. <https://doi.org/10.1016/j.childyouth.2020.105014>
- Malone, D. (2017). Socioeconomic status: A potential challenge for parental involvement in schools. *Delta Kappa Gamma Bulletin*, 83(3), 58-62.
- Moor, I., Winter, K., Bilz, L., Bucksch, J., Finne, E., John, N., ... & Richter, M. (2020). The 2017/18 Health Behaviour in School-aged Children (HBSC) study—Methodology of the World Health Organization’s child and adolescent health study. *Journal of Health Monitoring*, 5(3), 88. doi: 10.25646/6904
- Nurmi, J. E. (1991). How do adolescents see their future? A review of the development of future orientation and planning. *Developmental review*, 11(1), 1-59. [https://doi.org/10.1016/0273-2297\(91\)90002-6](https://doi.org/10.1016/0273-2297(91)90002-6)

- Rogers, M. A., Theule, J., Ryan, B. A., Adams, G. R., & Keating, L. (2009). Parental involvement and children's school achievement: Evidence for mediating processes. *Canadian journal of school psychology, 24*(1), 34-57.  
<https://doi.org/10.1177/0829573508328445>
- Roubinov, D. S., & Boyce, W. T. (2017). Parenting and SES: relative values or enduring principles?. *Current opinion in psychology, 15*, 162-167.  
<https://doi.org/10.1016/j.copsyc.2017.03.001>
- Pang, V. O. (1991). The relationship of test anxiety and math achievement to parental values in Asian-American and European-American middle school students. *Journal of Research & Development in Education*.
- Sameroff, A. (2009). *The transactional model*. American Psychological Association.
- Sirin, S. R. (2005). Socioeconomic status and academic achievement: A meta-analytic review of research. *Review of educational research, 75*(3), 417-453.  
<https://doi.org/10.3102/00346543075003417>
- Sohr-Preston, S. L., Scaramella, L. V., Martin, M. J., Neppl, T. K., Ontai, L., & Conger, R. (2013). Parental socioeconomic status, communication, and children's vocabulary development: A third-generation test of the family investment model. *Child development, 84*(3), 1046-1062. <https://doi.org/10.1111/cdev.12023>
- Stewart, D., Sun, J., Patterson, C., Lemerle, K., & Hardie, M. (2004). Promoting and building resilience in primary school communities: evidence from a comprehensive 'health promoting school' approach. *International Journal of Mental Health Promotion, 6*(3), 26-33. <https://doi.org/10.1080/14623730.2004.9721936>
- Subramani, C., & Kadiravan, S. (2017). Academic stress and mental health among high school students. *Indian Journal of Applied Research, 7*(5), 404-406.
- Torsheim, T., Cavallo, F., Levin, K. A., Schnohr, C., Mazur, J., Niclasen, B., ... & FAS Development Study Group. (2016). Psychometric validation of the revised family affluence scale: a latent variable approach. *Child indicators research, 9*, 771-784.  
<https://doi.org/10.1007/s12187-015-9339-x>



## **Appendix 1: Interdisciplinarity**

The condition to be explained in this thesis is the perceived school pressure by youth and what its relation is to socioeconomic status (SES). Furthermore, it examines what role parental support plays in the association between perceived school pressure and SES. These variables can be placed in different contexts in Sameroff's transactional model of development (2009). For example, SES can be explained in a familial context, but also in a societal or cultural context. Even though the concept of SES originates from anthropology, it has many consequences for disciplines like (social) psychology, pedagogics, sociology. Anthropology defines and frames SES, while SES can have defining consequences for (social) psychology, pedagogics, and sociology. The best way to understand SES is by viewing and defining it through multiple disciplines.

Perceived school pressure can be explained in a personal context, by for example a sensitivity to stressful situations, or it could be explained in a familial context. In the familial context an explanation could be that parents put pressure on their child to perform well in school. In this thesis, the relative risk aversion theory is used to link the variable of perceived school pressure to the variable of SES (Goldthorpe, 1996). This theory is used in several disciplines such as psychology and anthropology. It is used here to explain a mostly psychology-based phenomenon (perceived school pressure) through the lens of anthropology.

Parental support is a variable that finds itself mostly in the familial context and therefore requires insights from disciplines such as pedagogics. Its relation to other variables such as SES or perceived school pressure can however be better explained by also using theoretical insights of other disciplines. For example, the conservation of resources theory helps to connect the personal context of perceived school pressure and the familial context of parental support (Hobfoll, 1988). This theoretical insight originates for psychology but can be used here to also explain sociological and pedagogic phenomena in parental support.

Having different contextual and disciplinary viewpoints of a certain condition or phenomenon can help better understand it and facilitate potential responses. This thesis does use theoretical insights from several disciplines to contribute towards the understanding of each variable and potential associations.

## Appendix 2: Research contract

Utrecht, 2022

This letter constitutes formal confirmation of the fact that the data from the Utrecht University Master's program Youth Studies have been made available to **Sander Plaggenburg** of Utrecht University.

These data will not be made available to others, and the data may be used only for analysis and reporting on topics for the thesis, about which agreement has been reached with **Gerdien van Eersel**.

**Sander Plaggenburg** will receive access to the data from the dataset in order to answer the following research questions within the framework of the thesis:

### Research question:

What is the effect of socioeconomic status on perceived school pressure and what is the role of parental support on the association between SES and perceived school pressure?

### The following variables will be used:

Dependent variable:

Perceived school pressure (questionnaire VO: Q67, Q68 – questionnaire BO: Q52, Q53)

Independent variables:

Socioeconomic status (questionnaire VO: Q73, Q74, Q75, Q76, Q77, Q78, Q79, Q80, Q81 - questionnaire BO: Q55, Q56, Q57, Q58, Q59, Q60, Q61, Q62)

Parental support (Q36, Q37 – Q24, Q25)

Other variables:

Age (questionnaire VO: Q1 – questionnaire BO: Q1)

Gender (questionnaire VO: Q2 – questionnaire BO: Q2)

No report based on the data from the project entitled **HBSC 2021** will be made public, unless permission has been obtained in advance from the Project Coordinator for the Master Thesis.

After the expiration of this contract, dated July 31st, 2023, **Sander Plaggenburg** shall delete the **HBSC 2021** data.

Dates and signature:

27-01-2023



Name of student:

Sander Plaggenburg

Name of Project Coordinator:

Gerdien van Eersel