



Current Stressors and How They Affect Groninger Students' Subjective Well-Being and Experienced Stress: A Mixed Method Study

Colophon

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Abstract (English)

Students experience stress, and in the current research we aim to analyse six potential stressors for students in Groningen: Academic Stress, Energy Crisis, Housing Crisis, Student Loans, Working Alongside Studies and COVID-19 Pandemic. We investigated how the current situation concerning stress and subjective well-being (SWB) among students is and how each of the potential stressors, as well as substance use, is related to stress and SWB. We analysed these relationships through correlational analyses, regression analyses and open questions. A questionnaire was shared among students in Groningen (the Netherlands), from which 171 participants completed the quantitative part and over 220 participants answered the open questions. Correlational analysis revealed that all stressors were significantly correlated with both stress (positively) and SWB (negatively), and that neither drug or alcohol use is significantly correlated with stress and SWB. Both simple and multiple regression analyses revealed that Academic Stress is the biggest stressor, then the Energy Crisis and, following, the Housing Crisis. Students do not seem to be much more or less stressed than in 2017, and answers to the stress questionnaire as well as to the open questions suggest that the situation among students in Groningen should be improved: only 1.8% of the participants indicated that stress is not constantly present in their life and more than one third of the participants indicated that it is becoming increasingly difficult to deal with challenges that happen in their life. Examples of the effects of the Energy and Housing Crisis on students are discussed, including suggestions on how the situation could be improved.

Abstract (Nederlands)

Studenten ervaren stress en in het huidige onderzoek beoogden we zes stressoren voor studenten in Groningen te onderzoeken: Academische Stress, Energiecrisis, Huizencrisis, Studielening, Werken Naast Studeren en de COVID-19 Pandemie. We onderzochten hoe de huidige situatie is omtrent stress en subjectief welzijn (SWB) onder studenten en hoe elk van onze potentiële stressoren, net als drugs- en alcohol gebruik, is gerelateerd aan stress en SWB. We analyseerden deze relaties door middel van correlatie-analyses, regression-analyses en open vragen. Een vragenlijst was verspreid onder studenten in Groningen, waarvan 171 participanten het kwantitatieve deel hebben ingevuld en meer dan 220 participanten de open vragen hebben beantwoord. Correlatie-analyses toonden aan dat elke stressor significant gecorreleerd was aan zowel stress (positief gecorreleerd) als SWB (negatief gecorreleerd), en dat zowel drugsgebruik als alcoholgebruik niet significant gecorreleerd zijn aan stress and SWB. Uit zowel enkelvoudige lineaire regressie-analyses als meervoudige lineaire regressie-analyses bleek dat Academische Stress de grootste stressor is, daarna Energiecrisis en daarna Huizencrisis. Studenten lijken niet beduidend meer of minder gestresst te zijn dan in 2017, en de antwoorden op zowel de stress vragenlijst als de open vragen suggereren dat de situatie verbeterd zou moeten worden: slechts 1.8% van de participanten gaven aan dat stress niet constant aanwezig is in hun leven en meer dan een derde van de participanten gaf aan dat het steeds moeilijker wordt om om te gaan met tegenslagen in hun leven. Voorbeelden van hoe studenten worden beïnvloed door de energiecrisis en de huizencrisis worden besproken, net als suggesties om de situatie te verbeteren.

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Current Stressors and How They Affect Groninger Students' Subjective Well-Being and Experienced Stress: A Mixed Method Study

Theoretical Background

Almost everywhere around the planet, people live their life in a way they think will make them the happiest (Lyubomirsky, 2001). In the happiness literature, the terms well-being and subjective well-being (SWB) are often used to cover all the related concepts as scholars have not formulated a universal definition for SWB. While a higher level of SWB is something many people would like to experience, how this would feel is subjective to every person. In general, one could describe SWB as how satisfied a person is with their life as a whole, combined with the positive and negative feelings they are experiencing (Diener, 1984). In this view of SWB, satisfaction with life (LS) is considered the cognitive part of well-being, whereas the affective part is the positive and negative feelings that people experience (Gilman & Huebner, 2003).

Stress is defined as any type of change that causes physical, emotional or psychological strain (World Health Organization, 2021). Research suggests that stress, while useful in small proportions, could negatively impact one's SWB (Ng et al., 2008). Negative effects on one's health, cognitive performance, and mood also result from excessive stress (Kramer et al., 2022). Students as a group are known to experience stress (Davis & Olpin, 2021), for example because of academic demands (Brand & Schoonheim-Klein, 2009). Research by Patten and Vaterlaus (2021) discovered that a majority of students in their study presented levels of depression, stress, and anxiety comparable to the general population. Relatedly, a rise in mental health problems and concerns in college students in the United States has been identified (Patten & Vaterlaus, 2021).

Research conducted by the Groninger Studentenbond in 2017 investigated to what extent students in Groningen experienced stress. In a questionnaire consisting of 13 items, the participants were asked to indicate to what extent the 13 items were true for them ($n = 551$). Only 2% of the participants indicated that they completely feel in control during their studies, only 5% of the students completely agreed with the statement that they generally feel calm, and only 2% of the participants indicated that they completely agreed with the statement that they can handle challenges in their life. Furthermore, only 1% of the participants completely disagreed with the statement "I often feel a lot of pressure" (Bakker et al., 2017). These results suggest that stress was a serious problem for the students in Groningen in 2017.

According to the Transactional Model of Stress (Lazarus & Folkman, 1984), stress can be influenced by both internal and external factors. Furthermore, Lazarus and Folkman (1984) highlight that in the modern day, stress-related complaints arise from an inability to cope with demands due to a lack of resources, such as financial or social support. Currently, there are many potential external factors and developments that could influence students' stress and SWB. According to Chow (2005), some of the factors influencing students' SWB include their relationships with others, financial security and living situation. Basic needs as well as more complex needs such as belonging and freedom should be met (Türkdoğan & Duru, 2012). It could be argued the other way around, that when these needs are not met, this could lead to stress or lower SWB. In the current research, we will look into six potential stressors that might influence the SWB of students. Some of these stressors developed completely in the last five years (e.g. the energy crisis and the COVID-19 pandemic), while others were already (partly) present in 2017 (e.g. academic stress and working next to studying).

Potential Stressors

Academic Stress

According to Brand and Schoonheim-Klein (2009), the stress that students studying at a higher education facility experience is often multi-faceted. Stress can be caused by psychological, environmental, or academic factors. Students need to be able to quickly adapt to new social and educational environments, and this can cause feelings of stress and anxiety (Aspelmeier et al., 2012). As different stressors accumulate over time and when an individual feels like they are unable to cope, psychological distress can occur (Lazarus & Folkman, 1994). One focus of the current study will be academic stress, as it is something many students face at some point in their academic career.

Academic stress is linked to a decrease in academic performance (Khan et al., 2013). Research by Khan and colleagues (2013) found a significant relationship between students' academic stress and their academic performance. They highlighted that there is a negative relationship between stress and anxiety and academic performance, meaning that as stress and anxiety increase, academic performance tends to decrease. Additionally, they emphasise the way in which stress is perceived by students to be an important factor in this relationship. Namely, if the stress is appraised as excessive, overwhelming, and negative, undesirable outcomes such as psychological distress are more likely to result (Kumaraswamy, 2013).

Academic stress can be caused by a multitude of factors, including: workload, exam difficulty, time-management difficulties, and exam format (Bedewy & Gabriel, 2015). Research by Stecker (2004) highlighted that the rates of depression and anxiety symptoms

among medical students was alarmingly high. These authors discovered that around 10% ($n = 461$) of their participants reported suicidality and 25-35% ($n = 461$) reported depressive symptoms. On a related note, Bhujade (2017) states that at a given moment, from 10% to 20% of students will be struggling with psychological problems, most commonly anxiety and depression. In terms of the effects of academic stress on SWB, negative effects can be seen. For instance, research by Yovita and Asih (2017) highlighted that academic stress caused a significant decrease in the SWB amongst first year university students. Furthermore, Senocak and Demirirkan (2020), found that high levels of stress were associated with a decrease in SWB in a sample of Turkish nursing students. Given these statistics, we will include academic stress as a predictor as it will be interesting to identify the link between academic stress and stress and SWB of Groningen specific students.

Student Loans

Another relevant potential stressor on SWB may be student loan debt. Studies conducted in the last six years found not only increasing student loan debt (Antonucci 2016; Callendar & Mason, 2017; Goldrick-rab, 2016; Nissen et al., 2019) but greater debt by \$19,000 compared to students a decade before (Ministry of education, 2018; Nissen et al., 2019). This is an important consideration because student loan debt has a negative correlation with psychological well-being (Kim & Chatterjee, 2019). More importantly, this effect is still significantly prevalent after medical debt, credit card debt and income, among other variables, have been taken into account (Kim & Chatterjee, 2019). Martin (2016) aimed to explain this relationship to occur due to debt from student finances excessively restraining students in their aspirations, which negatively influences their well-being as individuals but also as a collective. Kim and Woo (2020) highlighted that young adults not yet being financially independent may explain why student loans can be so influential on SWB. In finding explanations for the student loan-well-being relationship, it is important to consider self-report studies where students who had worked to avoid debt during school stated they would have preferred the debt to other negative consequences of working, such as loneliness and feelings of regret (Nissen et al., 2019).

Nissen and colleagues (2019) identified the importance of studying well-being subjectively, considering that existing research found the perception of debt impacted the well-being of individuals more than the implications of the debt itself. This study found debt to be at an all-time high in the student population, and to be associated with shame (Antonucci et al., 2016). In the Netherlands, even those who take out student loans may need to supplement these costs with working or borrowing from family (Adema, 2022), a testament to

the current financial crisis largely related to energy costs and inflation. At least 1083 people aged 24 or younger were enrolled in higher education in the Netherlands for the 2021/22 academic year, according to national statistics for the year (Statistics Netherlands, 2022). A minimum of half of all students in most European countries are younger than 25 (Eurostudent, 2018). When those taking out loans do not have sufficient funds to live, this, considered in combination with the increasing student loan debt, the influence of student loans on SWB seems more important to study than ever. It is possible that even as of 2020, the influence of taking out loans for higher education on the SWB of students has not been sufficiently studied (Kim & Woo, 2020). Therefore, the current study aims to systematically analyse student loan debt as a stressor on SWB, on students studying in Groningen.

Working alongside Studies

Similar to student loans, working alongside studies is another method students take to fund their university education and living costs. In the current study, working during studies is defined as having a part-time job. According to Eurostudent (2018), the majority of students are employed and spend time working at this employment. Looking into the details of the study findings, slightly more than half of the students worked even during lectures. Additionally, the Europe-wide student survey found student employment to be the second most significant financial resource after family support. When looking into why students worked alongside studies, students in one study reported that they worked to prevent debt from building or to meet essential daily expenses (Nissen et al., 2019). A recurring trend in the literature is the impact of student employment on grade averages (Nissen et al., 2019; Simón et al., 2017), with increased time spent working related to decreased study time (Eurostudent, 2018), however there seems to be a gap in the research regarding well-being. Therefore, the current study aims to systematically analyse having a side job that is at least part-time as a stressor on SWB, on students studying in Groningen.

Energy Crisis

Another potential factor influencing students' stress levels and SWB is the current energy crisis. The energy crisis started in the autumn of 2021 (Plasschaert, 2021) and continued up to and including the period of the current study. Between January 2021 and May 2022, gas prices quadrupled and the prices for electricity tripled (Koster & olde Hanhof, 2022). For many people in the Netherlands, their energy bills became a large part of their monthly expenses, and people sought ways to minimise their energy consumption. It was not easy for everyone to pay hundreds of euros more each month on utilities. This crisis affected students and young adults as well, for example Shannah who was interviewed by the Dutch

news channel NOS. She explained that she sometimes used her laptop charger as a source of warmth. After she charged her laptop, she put the charger that was still warm underneath her sheets when she laid in bed (NOS Nieuws, 2022). Researchers in the energy field identified students as a population to be concerned about when considering consequences of the energy crisis. Researcher Nando Tolboom explained that the biggest problem is that students will not act until the bill comes, resulting in paying, on average, hundred euros more per month (Kuiper, 2022). Another student explained that because of the high rent and energy prices, he could not afford to pay groceries anymore (Schwaiger, 2022). Even though there was reason to believe that students were affected by the energy crisis, they were systematically excluded from national aid that the government gave Dutch citizens to help reduce the monthly energy costs (Wennekes, 2022).

Newspaper articles on this topic have been published, yet there has not been sufficient academic and scientific research done to draw conclusions on the effects of the energy crisis on student well-being. The RIVM investigated the factors contributing to the decrease in student well-being (Dopmeijer et al., 2021). The results revealed that the COVID-19 pandemic and the financial situation of the students led to a decrease in SWB. However, this study looked only at the debt of students, not the effects of the energy crisis. Nonetheless, considering the evidence that financial security and having a feeling of control is important for one's SWB (Chow, 2005), it could be argued that the increase in costs and lack of control as to how the prices for energy develop, can have a negative impact on students' SWB.

Considering the lack of research into the specific influence of the energy crisis on the SWB of students, we want to include the energy crisis as a potential factor influencing students' stress and SWB. We want to systematically research whether and to what extent the energy crisis affects students' daily life.

Housing Crisis

Another potential factor influencing students' stress levels is the current housing crisis. In recent years, the prices for both renting rooms or apartments and buying properties has risen (Vis, 2022). One of the reasons for this is that there is not enough housing in the Netherlands for all the people who want to live here (Verwaaij, n. d.). In the Netherlands, there is a point system that calculates what would be a fair amount of rent to pay for a room or apartment. However, when one rents an apartment or room and the fair price is higher than €763,47, there is no limit to what a landlord can ask (Rijksoverheid, n. d.). Tenants often pay a higher price for the rent than would be fair, for example €1200 for an apartment that should be €600 (Kempes & Bunskoek, 2021). A study conducted by Argos, who analysed 1200

advertisements for rooms on one of the most used platforms in the Netherlands to find a room, found that for 80% of the rooms, the rent was higher than what it should be according to the point system (Tromp, 2021). In Groningen, 86% of the rooms were too expensive: the rent being on average €117 higher than the maximum price according to the point system (Tromp, 2021).

The percentage of their income that people spend every month for rent or mortgage differs. In 2022, students spent on average 47% of their income on housing costs. This was much higher than tenants in the free sector (36%) and house owners (23%) did (DUWO, 2022). At the moment, there is a shortage of 27,000 student rooms in the Netherlands. This problem will likely grow in the near future because the number of students is growing faster than the number of available houses (RTL Nieuws, 2021).

The journalists of the news channel NOS investigated the situation of the housing crisis where people aged 18-35 years answered a questionnaire (NOSop3, 2021). They found 40% ($n = 4500$) of youth still living with their parents do so because they cannot find housing to live independently. Some respondents indicate feeling stress because of their housing situation, and more than 50% of the respondents indicated that they postpone life decisions because of their unstable housing situation (NOSop3, 2021). According to Verme (2009) people are happier when they have the freedom to make their own decisions (for example, as to where to live). Many youth and starters in the Netherlands are now limited in their options and feel less in control over where they can live (NOSop3, 2021). Research conducted by Backman-Nord and colleagues (2022) found that the housing situation of students influenced SWB. Other research found that feeling at home as well as the location of one's house were both significantly correlated with SWB (Blaauw & Pretorius, 2014).

In the current study, we aim to systematically analyse whether and how the current housing situation influences students' stress levels and SWB.

COVID-19 Pandemic

Another potential stressor to be included in the present study is the effects of the COVID-19 pandemic. The COVID-19 pandemic caused stress and other psychological difficulties for a variety of reasons. One in particular, in accordance with Pfeifer and colleagues (2021) is that the pandemic was a quickly changing and chronic stressor, experienced by many across the globe. Bueno-Notivol and colleagues (2021) found that increased anxiety and depression were experienced, particularly for those at a lower socioeconomic status. For students, challenges mainly relate to social isolation, education, and future prospects (Aristovnik et al., 2020). A study by Meo et al. (2020) investigating the

effects of quarantine for medical students discovered that these challenges resulted in feelings of emotional detachment toward others as well as a decrease in their motivation and performance. These authors suggested that the long-term quarantine may exacerbate the existing mental health issues experienced by students (Meo et al. 2020). A large-scale study involving a student sample discovered that around 72% ($n = 2398$) of participants reported a significant decrease in their well-being during the pandemic, and attributed this decrease to the lack of social contacts and opportunities (Holm-Hadulla et al., 2021).

Prior research into factors causing stress during the pandemic period consistently found education to be a notable stressor to students specifically. In particular, educational facilities making a sudden switch to online learning, through the use of video conferencing and online classrooms was found to increase stress (Maatuk et al., 2021). Pokhrel and Chhetri (2021) noted that the pandemic disrupted educational systems in over 200 countries, the authors claiming it to have caused the “largest disruption of education systems in human history”. Along with reduced social contacts, online teaching made it more difficult for students to engage, interact, and receive help from teachers, which predicts a decrease in academic performance level (Pokhrel & Chhetri, 2021). Interestingly, research by Aristovnik and colleagues (2020) discovered that most students were satisfied with the change to online learning, and only a small proportion reported an increase in workload and dissatisfaction with this. In terms of emotional difficulties, Aristovnik and colleagues (2020) highlighted that students were commonly anxious, bored, and frustrated. Given the immense impact of the pandemic on SWB in students, we will include the impact of the COVID-19 pandemic as a predictor.

Drug- and alcohol use

A factor that influences student well being is alcohol- and drug use. Maccagnan and colleagues (2020) looked at the consequences of alcohol- and drug use on subjective life satisfaction. The results showed that participants who never smoked cannabis in their life or smoked cannabis in the past had higher life satisfaction than participants who are current users (4.9% and 3% increase in scale points). Similar results were found for the other drugs included in the research. However, participants who consumed alcohol once or twice a week had a higher life satisfaction than participants who never consumed alcohol (25% increase in scale points) or participants who were heavy drinkers. Besides lower subjective life satisfaction, the use of drugs could also lead to mental health problems, as seen in the research of Brook and colleagues (2002). The researchers found that alcohol use earlier in life predicted psychiatric disorders such as alcohol dependence, substance use disorder and major

depressive disorder in the late twenties. This effect was, except for tobacco use, also seen for other drugs. Furthermore, a study from Davis and colleagues (2022) showed associations between cannabis use and anxiety symptoms. The results indicated that greater cannabis use predicted greater increases in anxiety in men and in the overall sample. Additionally, in a study by Messina and colleagues (2014), it was discovered that 79.6% ($n = 814$) of students reported alcohol use at least once in the past month and 61% ($n = 633$) reported engaging in binge drinking.

Studies investigating correlations between alcohol or drug use and well-being were conducted outside the Netherlands, and they often used broad samples rather than students specifically. From the results of studies into sewage water (Gemeenteraad Groningen, 2022) a number of conclusions could be drawn about drug use in the municipality of Groningen: firstly, there is heavier use of cocaine compared to the other measured municipalities in the province of Groningen. Secondly, the use of 3-Methylmethcathinone (3-MMC) and 4-methylmethcathinone (4-MMC) is also higher compared to the other municipalities, and lastly it is seen that Groningen has the highest cannabis use of all measured municipalities in the province of Groningen (Gemeente Groningen, 2022). Besides drug use, UKrant (2014) also investigated the alcohol use of university students. Their drug and alcohol consumption survey found alcohol to be the most commonly used drug among Dutch and international students, with 94% ($N=658$) indicating they have used alcohol in the past. Looking into ecstasy (XTC) use, the results showed that 34% ($N=119$) of men and 22% ($N=77$) of women have used XTC before, where more users were Dutch than international. The results from the sewage water and the survey give a global overview of the frequency of drug- and alcohol use among citizens and students. No conclusions could be drawn about the significance of these results and the correlations between alcohol- and drug use and well-being. Therefore, an aim of the current research is to conduct new research looking systematically at the correlations between alcohol- and drug use and SWB and stress among Dutch and international university students studying in Groningen.

Groningen

The current body of literature suggests that stress among students should be taken seriously. The research conducted by the Groninger Studentenbond in 2017 (Bakker et al., 2027) highlighted the situation back then, however changes have occurred between then to the present study. In the present study, we will measure the stress levels of students in Groningen in 2023, using the same stress questionnaire as the Groninger Studentenbond used in 2017. By

doing this, our aim is to explicitly compare the same constructs of stress and SWB in the same population, but at different times.

Furthermore, another reason why students are the demographic of the present study is because Groningen has a large student population. According to the UG annual report 2021 (Gritter & Schoenmaker, 2022) there are over 35,000 students in this city, allowing us to cover a large ground in order to get a better idea of the effects of specific stressors on SWB.

Finally, research by Gemeente Groningen in 2022 concluded that drug use in Groningen is relatively high and therefore comparable to the biggest cities in the Netherlands. This indicated that including drug use among students in Groningen as a variable in our study could have interesting results.

Current Research

The current study aims to review the current situation concerning stress and SWB among students in Groningen. This includes comparing the development of stress in students in Groningen since the previous student stress study in 2017. Several stressors have been identified based on current literature and relevance, and the current study aims to determine how each stressor is related to stress and SWB among students in Groningen.

Experiencing high levels of academic stress has been shown to be related to decreases in academic performance as well as psychological distress if the stress is perceived as negative and overwhelming. Therefore, the present study aims to analyse the effects of academic stress on the SWB and stress levels of students.

Increased levels of psychological problems such as anxiety and depression were experienced by students during the COVID-19 pandemic. A swift adjustment to online learning as well as the reduction in social contact and opportunities resulted in emotional detachment and less motivation. Additionally, students reported dissatisfaction, anxiety, and boredom as emotional difficulties during the pandemic. Therefore, the current study aims to analyse the effect of the COVID-19 pandemic on SWB and stress experienced by students.

Student loan debt appears to be an increasingly prevalent topic for the worldwide student population due to steadily increasing (Antonucci, 2016; Calendar & Mason, 2017; Goldrick-Rab, 2016; Nissen et al., 2019). It is hard to interpret the cause of this increase, however negative correlations between student debt and correlations (Kim & Chatterjee, 2019) prompt the need for finding why student debt may be detrimental to students, in particular. Perceived consequences of student debt may be particularly important; the current study aims to determine if student debt does in fact influence well-being subjectively, from the perspective of the students themselves.

With research suggesting a high percentage of students work at least part-time alongside their studies (Eurostudent, 2018), this factor may be a significant stressor for Groningen students. Once again, there is little research on a correlation with SWB specifically, but the established link to academic attainment appears to be recurring in recent literature. Working alongside university studies provides a tangible stressor for the studied population, and the distress cited in studies such as Nissen and colleagues (2019) prompts research into the specific effects of this stressor on SWB in students in Groningen.

The current housing scarcity crisis leads to higher housing prices as well as limited options and possibilities as to where and how one wants to live. We want to investigate how this affects students and whether this influences their SWB and stress levels.

Energy prices have risen to record highs in 2022 and 2023, with the consequence that utilities prices became a large part of people's monthly expenses. Many people in the Netherlands sought ways to minimise their gas- and electricity consumption. The government made money available to help the Dutch citizens financially, but students were sometimes excluded from these financial aids. In the current research, we want to gain more insights into how the energy crisis is affecting students in their daily lives and whether it has influenced their SWB.

Due to study findings suggesting substance use in Groningen being high relative to other Dutch municipalities (Gemeente Groningen, 2022), and combining this with findings where use of substances such as cannabis and alcohol can substantially impact later life (Brook et al., 2002; Davis et al., 2022), substance use has been included as a relevant variable in this study.

Therefore, stressors in this study consist of Academic Stress, Working Alongside Studies, Student Loans, COVID-19 Pandemic, the Energy Crisis and the Housing Crisis. These will be assessed in relation to SWB as seen in Figure 1 and stress as can be seen in Figure 2. Substance use will be assessed as well to investigate whether this is related to either stress or SWB as seen in Figure 3 and 4.

In conclusion, this leads to the following research questions:

R1: What is the current situation concerning stress among students in Groningen?

R2: How is each of our potential stressors related to stress and SWB among students in Groningen? (see Figure 1 and Figure 2)

R3: Is drug- and alcohol use among students in Groningen related to stress and/or SWB? (See Figure 3 and Figure 4)

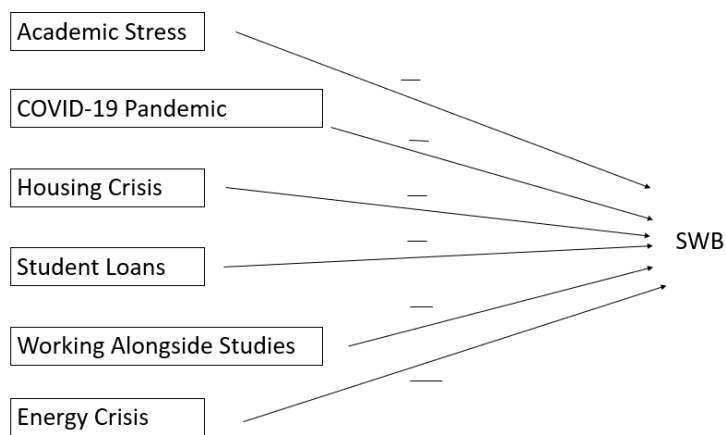


Figure 1. Model depicting the stressor variables Academic Stress, COVID-19 Pandemic, Housing Crisis, Student Loans, Working Alongside Studies and Energy Crisis influencing the dependent variable SWB.

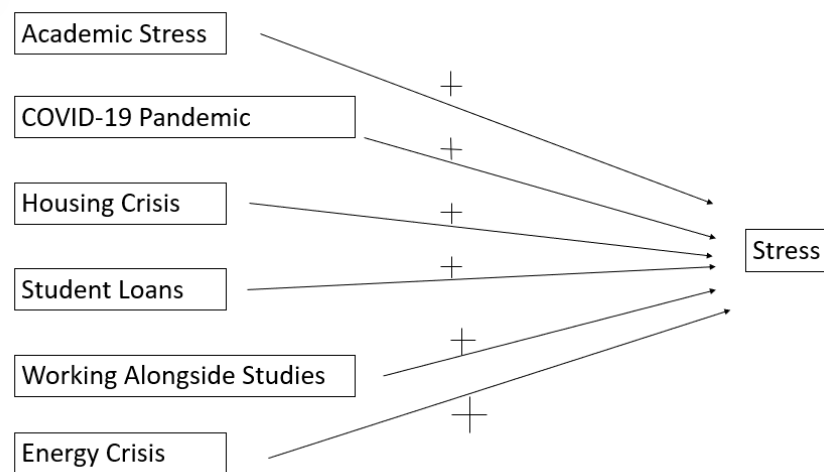


Figure 2. Model depicting the stressor variables Academic Stress, COVID-19 Pandemic, Housing Crisis, Student Loans, Working Alongside Studies and Energy Crisis influencing the dependent variable Stress.



Figure 3. Model depicting substance use influencing SWB.

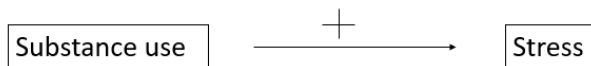


Figure 4. Model depicting substance use influence stress.

Method

Participants

A total of 255 students filled in the online questionnaire. After deleting those who did not complete the questionnaire or did not give informed consent, 171 participants were left and suitable for analysing. This sample included 121 women (70.8%), 46 men (26.9%), 3 participants who indicated “other” (1.8%), and 1 participant who preferred not to say (.6%). There were 7 participants 18 and younger (4.1%), 21 participants were 19 years old (12.3%), 25 participants were 20 years old (14.6%), 34 participants were 21 years old (19.9%), 27 participants were 22 years old (15.8%), 16 participants were 23 years old (9.4%), 17 participants were 24 (9.9%), and lastly, 24 participants were 25 and older (14%). The sample included 134 students from the RUG (80.1%) and 34 students from the Hanze (19.9%). From the participants, 134 (78.4%) were Dutch and 37 (21.6%) were international students. Slightly less than half of the participants had a student loan (45.6%, $n = 93$), and 124 participants received financial aid from their parents (72.5%).

The online questionnaire was available through the period of 15th of March 2023 until 21st of April 2023. We recruited the participants in different ways. Student organisations in Groningen were asked to share the questionnaire among their members, from which 27 student organisations did this. They did this either through their newsletter or on Instagram. In addition to this, the members of the research team shared the questionnaire among their personal networks through WhatsApp, Facebook, Instagram and LinkedIn. Flyers were distributed throughout the city, for example on boards in supermarkets or university buildings.

Additionally, the research team went to the university four times to ask students directly whether they wanted to participate. The research was also promoted on the social media of the Groninger Studentenbond and during the Well-Being weeks in Groningen. The organisation Team050, where many students work, also shared it in their weekly newsletter and hung up flyers at the office for the students working there. Participants had the possibility to win a giftcard for the Dutch online shop Bol.com. Two giftcards of €15 were raffled.

Before the data collection started, an a priori power analysis was conducted using G*Power (version 3; Faul et al., 2007). The parameter value $1 - \beta = .80$ and we used .05 significance level for six predictor variables to compute predicted sample sizes to achieve sufficient power. A power analysis for small effects was used, recommending a sample size of 688 ($F(6,681) = 2.12$).

Materials

Stressors

Our independent variables - stressors - were measured through a matrix questionnaire. The Undergraduate Sources of Stress (USOS) questionnaire was used (Tucker et. al., 2006), which we adapted and elaborated to fit the context of this study: we kept the items from the original questionnaire that were relevant for our stressors, and added items to measure the stressors that were not in the original questionnaire. Participants were asked to answer the question “To what extent has each of the following been a source of stress to you this semester?” for 24 items, where every item operationalized one of the stressors. Participants were asked to rate each item on a scale ranging from 1 = *not at all* to 5 = *a great deal*. For example, one of the items for academic stressors was: “Intellectual demands of the course.”. The scale reliability of the items measuring Academic Stress was $\alpha = .80$. The scale reliability of the items measuring the Energy Crisis was $\alpha = .74$. The scale reliability of the items measuring the Housing Crisis was $\alpha = .70$. The scale reliability of the items measuring Working alongside studies was $\alpha = .87$. The scale reliability of the items measuring Student Loans was $\alpha = .93$. The scale reliability of the items measuring COVID-19 was $\alpha = .88$.

Additionally, to also include objective measurements of working alongside studies and student debt, a few questions about the participants' working life and financial situation were included. The participants were asked whether they work alongside their studies and how many hours per week on average, with the options *I do not work*, *1-5 hours*, *5-12 hours*, *12-22 hours*, *22-30 hours* and *More than 30 hours* given. Participants were also asked whether they received financial support from their parents. Finally, participants were asked whether they

receive money from DUO (the organisation in the Netherlands which provides student loans) each month: “How many euros do you approximately receive from DUO on a monthly basis? This excludes the “aanvullende beurs”.” *I do not have a student loan, €1-150, €150-400, €400-700 and €700-960* being the answer options.

SWB

The dependent variable SWB was operationalized by measuring the three facets of SWB: Positive Affect, Negative Affect and Satisfaction with Life. To assess positive affect and negative affect, the Positive And Negative Affect schedule - Short Form (PANAS-SF) was used (Thompson, 2007). Participants were asked to indicate how they normally feel on a scale ranging from 1 (*never*) to 5 (*always*). Items include : “To what extent do you normally feel upset?”. The scale reliability is $\alpha = .82$. To measure satisfaction with life, the Satisfaction With Life Scale (SWLS) was used (Diener et al., 1985). The participants were asked to indicate to what extent they agreed with five statements on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Items included, “In most ways, my life is close to ideal.” The scale reliability is $\alpha = .85$. When these two scales are put together for one measure of SWB, the scale reliability of this combined scale was $\alpha = .82$.

Stress

The dependent variable stress was measured through the stress questionnaire constructed by the research team of the Groninger Studentenbond in 2017 (Bakker et al., 2017). The questionnaire consisted of thirteen items, where the participants were asked to indicate for each item to what extent it was applicable to them on a scale ranging from 1 (*This does not apply to me at all*) to 5 (*This completely applies to me*). Items included, “I think that I experience more stress than other students.”. The scale reliability of the stress questionnaire was $\alpha = .86$.

Drugs and Alcohol

Firstly, we wanted to investigate the amount of drug or alcohol use, with items “How often do you drink alcohol on average?” measuring alcohol use and “How often do you use recreational drugs on average?” measuring drug use. For both questions, the answer options were *Daily, Weekly, Monthly, 2-4 times a year, Yearly, Biannually* and *Never*. The second question concerned the nature or reason of the drug- and alcohol use. The question was: “Choosing from the options below, in which context do you most often drink alcohol?” and “Choosing from the options below, in which context do you most often use recreational drugs?”. An example of the answer options is: *I drink/use recreational drugs with friends/family/housemates at home*.

Procedure

The Questionnaire

The participants filled in an online questionnaire conducted through Qualtrics. The inclusion criteria were that the participant is a student at the Hanze or the RUG. The exclusion criteria removed participants from the final analysis who were not studying at the RUG or Hanze and participants who were not students at all. The questionnaire consisted of questions about their demographics, working life, drug- and alcohol use, the potential stressors and the questions about SWB and stress. Before starting the questionnaire, the participants were given information about the questionnaire and how their data was processed and stored, based on ethical protocol guidelines. After they read this passage, they were asked to give their consent before proceeding to the questions.

At the end of the questionnaire, the participants had the possibility to write any questions or remarks they might have had about the questionnaire. Additionally, participants did not receive financial compensation, but they could choose to enter their email address to enter a raffle to win a Bol.com giftcard. If they chose to do so, this meant that their responses were not completely anonymous. Participants could end the questionnaire at any given moment without needing to indicate why. The questionnaire took about 15 minutes to complete.

Every question in the questionnaire was written in both English and Dutch, to ensure that both Dutch and international students were able to complete the questionnaire. This meant that some questionnaires that we used were translated to Dutch by the research team when the original questionnaire was from an English article (e.g. the PANAS-SF). Also questionnaires that were originally in Dutch (e.g. the stress questionnaire) were translated to English by the research team. This task was undertaken by one researcher of the research team, and reviewed by two other researchers to ensure correct translations.

Statistical analysis

IBM SPSS Statistics 29 was used to perform the statistical analyses. Researchers calculated descriptive statistics for stress and SWB measures to form demographic information about the sample. Pearson correlations were calculated to draw conclusions regarding which stressors influence SWB and stress. Pearson correlations also informed conclusions about whether drug- and alcohol use was correlated with stress and/or SWB. Before running the multiple regression analysis, the relevant assumptions were checked. See Appendix D for the details about the assumption checks. Every assumption for multiple regression was met.

To test which stressor is the biggest predictor of stress and SWB, a simple linear regression analysis was performed to investigate the influence of every stressor on SWB and stress individually. Additionally, a multiple regression analysis was performed for both SWB and stress including every stressor with a significant correlation with the dependent variable to calculate the total explained variance. The answers to the open ended questions were coded and categorised into themes that were mentioned by the participants.

Results

The Current Situation Regarding Stress and SWB

In the analysis, we compared the descriptive statistics reporting on demographic aspects of the sample. The overall average stress score resulted in 3.03, $SD = .71$. The overall average SWB score was 3.21, $SD = .60$. The average stress score for males was 2.84 ($SD = .77$), while for females it was 3.08 ($SD = .67$). The average SWB score for females ($M = 3.23$, $SD = .57$) was only slightly higher than for males ($M = 3.21$, $SD = .67$). The age group with the highest stress score was 18 and younger ($M = 3.32$, $SD = .63$), and the age group with the lowest stress score was 20 ($M = 2.82$, $SD = .73$). The age group with the highest average SWB score was age 20 ($M = 3.35$, $SD = .51$), while the group with the lowest SWB score was 18 and younger ($M = 3.0$, $SD = .75$). The differences in stress scores between international students and Dutch students was not large, nonetheless, the average stress score was higher for international students ($M = 3.05$, $SD = .61$) than Dutch students ($M = 3.03$, $SD = .74$). The average SWB score for international students ($M = 3.23$, $SD = .72$) was higher than for Dutch students ($M = 3.20$, $SD = .57$). The average stress score for RUG students ($M = 3.05$, $SD = .71$) was higher than for Hanze students ($M = 2.98$, $SD = .73$). The average SWB score for RUG students was higher ($M = 3.22$, $SD = .62$) than for Hanze students ($M = 3.15$, $SD = .56$). The average stress score for students in their Bachelor's Programme ($M = 3.05$, $SD = .72$) was higher than for those in their Master's Programme ($M = 3.0$, $SD = .70$) and those in their Pre-master's Programme ($M = 2.9$, $SD = .46$). The average SWB score was highest for those in the Pre-master's programme ($M = 3.47$, $SD = .27$), second highest for Bachelor's programme ($M = 3.20$, $SD = .62$), which was also similar to those in the Master's programme ($M = 3.20$, $SD = .57$). Lastly, the average stress score for students studying full-time ($M = 3.05$, $SD = .72$) was higher than for those studying part-time ($M = 2.83$, $SD = .48$). The average SWB score for part-time students was higher ($M = 3.4$, $SD = .47$) than for full-time students ($M = 3.2$, $SD = .60$).

The Stress Questionnaire

A number of interesting findings resulted from our analysis, see Appendix B, Table B1, for the full table. For example, when asked *'In general, I feel calm'*, the minority (24.6%) indicated that this applies to them completely or for the most part / most of the time. When asked *'I feel like I am in control during the course of my study'*, only 11 participants (6.4%) indicated that this completely applies to them.

When asked *'I feel like I can deal with most of the setbacks that occur in my life'*, 74 participants (48.6%) indicated that this applies to them completely or for the most part / most of the time. Relatedly, when asked *'I feel like I deal with the difficulties in my life effectively'*, 59 (41.5%) participants indicated that this applies to them completely or for the most part / most of the time. Interestingly, this is rather contradictory to the results of the question *'I feel like it's getting increasingly difficult to deal with the challenges that happen in my life'*, in which more than one third (36.3%) of the participants indicated that it completely or for the most part applies to them. When asked *'Stress or pressure is something that is constantly present in my student life'*, only 3 (1.8%) participants indicated that this does not apply to them at all. While 61 (35.7%) indicated that this applies to them for the most part / most of the time', and 53 (31%) indicated that this applies to them completely. Lastly, 8 (4.7%) participants, when asked *'I feel well-rested during the day'*, indicated that this completely applies to them. While 52 (30.4%) indicated that this does not apply to them for the most part / most of the time. Interestingly, 54 (31.6%) participants indicated that this applies to them for the most part / most of the time, when asked *'Generally speaking, I sleep well'*, and 26 (15.2%) indicating that this completely applies to them.

Stressors

Correlations

First, the Pearson Correlations between the potential stressors and the dependent variables SWB and stress were investigated (see Table 1). See Appendix C for the correlations between all items from the stressors and stress and SWB.

Table 1.
Correlations between Stressors and Dependent Variables.

Stressors		Stress	SWB
Student Loans	Pearson Correlation	.371**	-.321**
	N	122	122
COVID-19	Pearson Correlation	.289**	-.249**
	N	171	171
Working alongside studies	Pearson Correlation	.324**	-.227**
	N	171	171
Academic Stress	Pearson Correlation	.505**	-.392**
	N	171	171
Energy	Pearson Correlation	.438**	-.441**
	N	171	171
Housing	Pearson Correlation	.396**	-.431**
	N	171	171

Note. **. Correlation is significant at the 0.01 level (2-tailed)

Linear Regression

Simple Linear Regression SWB. Every predictor individually significantly predicts SWB, with differing explained variance. Housing Crisis leads to a significant decrease in SWB, R^2 of .186, $F(1, 169) = 38.570$, $p < .001$. Energy Crisis leads to a significant decrease in SWB, R^2 of .195, $F(1, 169) = 40.897$, $p < .001$. Working Alongside Studies leads to a significant decrease in SWB, R^2 of .052, $F(1, 169) = 9.213$, $p = .003$. Academic Stress leads to a significant decrease in SWB, R^2 of .153, $F(1, 169) = 30.617$, $p < .001$. COVID-19 leads to a significant decrease in SWB, R^2 of .062, $F(1, 169) = 11.200$, $p < .001$. Student Loans lead to a significant decrease in SWB, R^2 of .153, $F(1, 169) = 13.786$, $p < .001$. Academic Stress explains most of the variance of SWB in students and COVID-19 the least.

Simple Linear Regression Stress. Every stressor significantly impacted stress in the analyses of the current study. Housing Crisis leads to a significant increase in stress, R^2 of .157, $F(1, 169) = 31.485$, $p < .001$. Energy Crisis leads to a significant increase in stress, R^2 of .192, $F(1, 169) = 30.090$, $p < .001$. Academic Stress leads to a significant increase in stress,

R^2 of .255, $F(1, 169) = 57.813, p < .001$. Working Alongside Studies leads to a significant increase in stress, R^2 of .105, $F(1, 169) = 19.8, p < .001$. COVID-19 leads to a significant increase in stress, R^2 of .083, $F(1, 169) = 15.357, p < .001$. Student Loans leads to a significant increase in stress, R^2 of .137, $F(1, 169) = 19.129, p < .001$.

Assumption Checks Multiple Regression. Before running the multiple regression analysis with the significant predictors, the relevant assumptions were checked. Every assumption for multiple regression was met. The details for the assumption checks can be found in Appendix D.

Multiple Regression SWB. After the assumption checks, the stressors were regressed on the dependent variable SWB. All stressors combined explain 26.6% of the variance of SWB in students (see Table 2). In the combined model, only Academic Stress remains a significant predictor with $b = -.163, t(121) = -2.474, p = .015$. See Table 3 for the coefficients of the other stressors on SWB.

Table 2

Regression Model of all Stressors combined on SWB

Model	R	R Square	Adjusted R Square	SE	R Square Change	F Change	df1	df2	Sig. F Change
1	.516 ^a	.266	.227	.524	.266	6.938	6	115	<.001

Note: Model summary of the multiple linear regression with the predictors Housing Crisis, Energy Crisis, Academic Stress, Working, COVID-19 and Student Loan regressed on the dependent variable Stress.

- a. Predictors: (Constant), Housing Crisis, Energy Crisis, Academic Stress, Working, COVID-19, Student Loan.
- b. Dependent Variable: SWB

Table 3.*Coefficients with SWB as a dependent variable.*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	4.168	.184		22.702	<.001
Stressor_Housing	-.100	.061	-.183	-1.647	.102
Stressor_Energy	-.100	.072	-.169	-1.385	.169
Stressor_Academic	-.163	.066	-.244	-2.474	.015
Stressor_Working	.013	.049	.027	.271	.787
Stressor_COVID	.006	.052	.010	.125	.901
Stressor_Student Loan	-.029	.042	-.069	-.687	.493

a. Dependent Variable: SWB

Multiple Regression Stress. After the assumption checks, the stressors were regressed on the dependent variable stress. All stressors combined explain 38.5% of the variance of stress in students (see Table 4). In the combined model, only Academic Stress remains a significant predictor with $b = .328$, $t(121) = 4.499$, $p < .001$. See Table 5 for the coefficients of the other stressors on SWB.

Table 4*Regression Model of all Stressors combined on Stress*

Model	R	R Square	Adjusted R Square	SE	R Square Change	F Change	df1	df2	Sig. F Change
1	.621 ^a	.385	.353	.579	.385	12.016	6	115	<.001

Note: Model summary of the multiple linear regression with the predictors Housing Crisis, Energy Crisis, Academic Stress, Working, COVID-19 and Student Loan regressed on the dependent variable Stress.

a. Predictors: (Constant), Housing Crisis, Energy Crisis, Academic Stress, Working, COVID-19, Student Loan.

b. Dependent Variable: Stress

Table 5 .*Coefficients with Stress as a dependent variable.*

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	1.454	.203		7.179	<.001
Housing	.128	.067	.193	1.895	.061
Energy Crisis	.035	.080	.049	.441	.660
Academic Stress	.328	.073	.406	4.499	<.001
Working	.004	.054	.007	.080	.936
COVID	.058	.057	.078	1.020	.310
Student Loan	.042	.047	.083	.906	.367

a. Dependent Variable: Stress

Qualitative Investigation of Energy Crisis and Housing Crisis

Energy Crisis. To further investigate the impact of the energy crisis, the participants were asked whether they are influenced by the energy crisis. Out of the 230 participants who answered the question “Are you affected by the energy crisis in your daily life?”, 135 (58,7%) students indicate being affected by the energy crisis, and 95 students indicate that they aren’t (41,3%). The participants who indicated that they are affected by the energy crisis, were thereafter asked to give examples of how the energy crisis has affected them. Some people reported more than one example in which they are influenced. The results are presented in Table 6.

Table 6
The ways in which the energy crisis impacts students.

Theme	N	Examples
Higher prices for gas and electricity	79	“My rent has increased.”
Higher prices or having less money in general	54	“[I have] Less and less money left for groceries. I needed to lend more money with my student loan to get by.”
Actions to prevent lower costs, such as heating and showering less	36	“To prevent very high energy bills, I am not turning on the heating, I am not showering at home and don’t wash my clothes often or I go to my parents to wash them there.” “I put the thermostat on low setting and go more often to the UB [University Library]. Also I shower less, otherwise the bill becomes too high for me to pay. We track our energy expenses in an app so that causes a lot of stress every month.”
Mental consequences	19	“ I was too worried when I lived with my housemates as I didn’ t know how much they spent on energy.”
Tensions between them and other people such as housemates and landlords	3	“ My rent has increased to €1000 per month for a studio. I can’ t pay this, but can’ t find another home so this leads to tensions with my landlord.”
Needing to work more	4	“ I have less money left during the month now, so I needed to start working more even though I really don’ t have time to work more.”

Note. This is a table with the ways in which the energy crisis affects students. The table includes the themes of the answers, how many students mentioned the theme and an example of the theme.

Housing Crisis. To further investigate the impact of the housing crisis, the participants were asked whether they are influenced by the housing crisis. Out of the 223 participants who answered the question “Are you affected by the housing crisis (fewer available houses/rooms and for example consequently higher prices for rent) in your (daily) life?”, 96 participants indicated that they are affected by it (43%) and 127 participants indicated that they are not affected by the housing crisis (57%). The participants who indicated that they are affected by the energy crisis, were thereafter asked to give examples of how the energy crisis has affected

them. Some people reported more than one example in which they are influenced. The results are presented in Table 7.

Table 7
The ways in which the energy crisis impacts students.

Theme	N	Examples
Difficult to find a room/apartment.	49	“I was homeless for my first semester here.”
High rent	41	“My rent has raised so much that I occasionally cannot afford to cover other expenses such as food.”
Living somewhere they don't want to	30	“My living situation is bad. I have terrible neighbours who deal in drugs and I am living in a container studio that can easily reach 45 degrees Celsius in summer. I very much want to move and live somewhere else, but that is not possible.”
Mental consequences	11	“I have lived in a squat house, which I was forced to leave. After that I moved in with someone who I didn't click with, which was very annoying after a while, but I didn't have another choice. Now I was lucky enough to find a house through WoningNet. The house is in very bad condition (for example leaking windows, there are written texts on the walls all throughout the house, and other things) but I am happy that I can now finally live somewhere. It has caused a lot of stress and because I had to move so often, I now have a study delay.”
Affecting participants' further life choices	7	“For my Master's Degree, I would like to move to another city, but it is very difficult to find a house in a city where you don't know anyone. This also affects my decision on what to study.” “After my studies, my intention is to find a job in the area of Den Haag. However, it is very difficult to find anything at all, forcing one to find a job in the area where one already lives.”
Problems with landlords	2	“I was kicked out of my room because the landlord wants to turn it into studios.”

Note. This is a table with the ways in which the housing crisis affects students. The table includes the themes of the answers, how many students mentioned the theme and an example of the theme.

Drug- and Alcohol Use

The items concerning alcohol- and drug use were completed by 171 participants. Table 8 shows the frequency statistics of alcohol- and drug use. Weekly alcohol consumption was most common out of the options. The option ‘*Never*’ to the question ‘Choosing from the options, in which context do you most often use drugs?’ was most common (49.12%, $n = 84$). A significant positive correlation was found between alcohol- and drug use, $r(169) = .425$, p

< 0.001. We investigated whether drug- and alcohol use is correlated with stress and SWB among students in Groningen. The correlations between alcohol consumption with stress and SWB are not significant ($r(169) = .073$, $p = 0.344$ and $r(169) = -.125$, $p = .104$ respectively). Also, the correlations between drug use with stress and SWB are not significant ($r(169) = .025$, $p = .742$ and $r(169) = .047$, $p = .542$ respectively). Figure 5 shows which contexts participants were more likely to consume alcohol in. The option “I drink with friends/family out at bars, restaurants etc.” is given as the main reason for drinking alcohol; 53.8% ($n = 92$) of the participants chose this option. Figure 6 shows which contexts participants were more likely to use drugs in. Notably, none of the participants chose the option “I use recreational drugs in a(n) academic/work setting (e.g. to work harder or perform better)”.

Table 8.

Frequencies drug- and alcohol use

	Frequency alcohol use	Percent	Frequency drug use	Percent
Daily	8	4.7	5	2.9
Weekly	91	53.2	8	4.7
Monthly	41	24.0	23	13.5
2-4 times a year	16	9.4	34	19.9
Yearly	1	.6	7	4.1
Biannually	1	.6	10	5.8
Never	13	7.6	84	49.1
Total	171	100.0	171	100

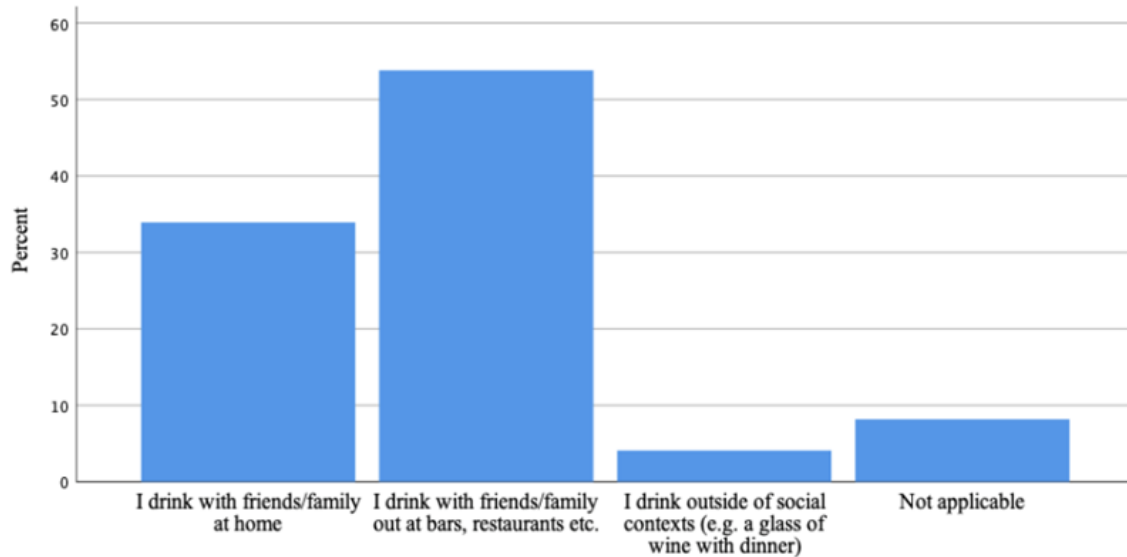


Figure 5. Percentages from the question “Choosing from the options, in which context do you most often drink alcohol?”

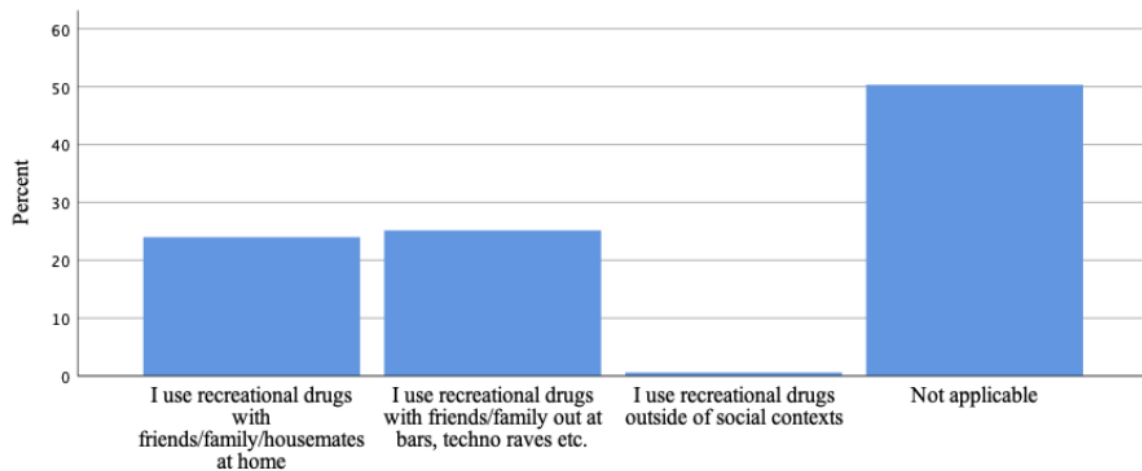


Figure 6. Percentages from the question “Choosing from the options, in which context do you most often use drugs?”

Participants’ Suggestions for Improvement

To investigate how the situation concerning stress and SWB among students in Groningen could be improved, we asked the participants whether they had suggestions on what the municipality or government could do to help students. First we asked the participants the question: “Do you think the government or municipality should do more to help students (financially)?”. From the 220 participants who answered this question, 204 students think that the government or municipality should do more (92,7%), and 16 think that the government or

municipality should not (7,3%). Thereafter, the participants were asked whether they have suggestions on how the government or municipality could help them. The results are presented in Table 9.

Table 9
Suggestions by students for improvement.

Theme	N	Examples
Regulating and improving the housing situation for students in Groningen.	46	<p>“To limit the acceptance of the number of students if housing is this big of a problem. Or for the university to help the students more.”</p> <p>“Maximum of rent per X m².”</p> <p>“Make an official platform for students to find houses at a fair price instead of students having to find third parties.”</p> <p>“More affordable student housing, for example dorms.”</p>
Studiebeurs (scholarship) should come back and/or students should be compensated for the last couple of	45	<p>“ Compensation for the student loan system.”</p>
Compensation /subsidy utilities.	34	<p>“ One-time grant for students who can document that their rent was raised significantly.”</p> <p>“ Give the subsidy for the higher energy costs to students as well.”</p>
More money for students in general or for the students with the lowest income.	31	<p>“ Optional for students to buy essential products with discount, for example toilet paper, fruit and bread.”</p> <p>“ Making the public transport more accessible, longer free public transport.”</p>
Stricter rules for landlords against exploitation.	12	<p>“ Stricter regulations and supervision on landlords.”</p>
Providing more information	5	<p>“ presenting the necessary information clearly and making it accessible.”</p>
International students should be taken more into consideration	4	<p>“ Provide more benefits for international students given that they do not qualify for a lot of benefits and the housing crisis usually affects them more than it affects Dutch students</p>

Note. This table presents the suggestions that students give on how they could be helped and their SWB could be improved or stress reduced.

Discussion

Current Situation Concerning Stress among Students

One goal of the present study was to compare the situation concerning stress and SWB among students in 2023 to the situation concerning stress among students in 2017 (Bakker et

al., 2017). The average stress score in the present study was 3.03, which is not a high nor low score, but an average score for stress. It is not possible to compare this score to the previous one of 2017, as they did not report one in their research (Bakker et al., 2017).

Taken together, we can see that there are some differences in the way that students in 2017 reported stress compared to the sample of the present study in 2023. Firstly, we highlight a 13.2% increase in 2023 compared to 2017 in students reporting that “*I feel like I can handle important changes in my life well*” completely applies to them. Furthermore, we noted a 8.3% decrease in 2023 in students reporting that this does not apply to them at all. These findings suggest changes in the way students experience their handling of important changes occurring in their life, specifically, it suggests an increase in ability to handle such changes. Secondly, in terms of difficulty in dealing with challenges that happen in their life, there are not many notable changes in the present study compared to the 2017 one. For example, we noted a 4.6% decrease in students reporting that having difficulties dealing with challenges that happen in their life does not apply to them at all, and a 2.9% increase in students reporting that this somewhat applies to them. As the percentages are relatively similar, these findings suggest that the way students experience the difficulties in dealing with challenges in their life seems to not have changed much over the past six years. There are also not many large changes in the perception of feeling stress or pressure among students. When asked “*I often feel stress or pressure*” we noted a 3% increase in students reporting that this completely applies to them. Additionally, there was a 1.9% increase in students reporting that this does not apply to them at all. Although the percentages are quite similar, these results seem to suggest that a small number of students report feeling more stress or pressure than the sample of the 2017 study. Lastly, we noted some changes with regards to students feeling well-rested. Specifically, when asked “*I feel well-rested during the day*”, we noted an 11.6% increase in students indicating that this does not apply to them at all. Additionally, we noted a 4.7% increase in students reporting that this applies to them completely. What these interesting findings indicate is that there are changes to whether students feel well-rested during the day, particularly in the direction that more tend to not feel well-rested now compared to 2017. All in all, despite some minor changes there were not that many changes to the situation concerning stress among students in Groningen.

Stressors

The second goal of the present study was to investigate whether and in which way each stressor was related to stress and SWB. Every stressor was significantly correlated with stress and SWB. This means that the potential stressors that we indicated are notably

influential on stress and SWB in students. Our regression analyses concluded that all the stressors together explain a significant and moderate part of the stress and SWB that students experience, where the stressors explained a larger part in stress than in SWB. This means that we indicated relevant stressors for students at this moment, but that there are many more factors influencing the stress and SWB of students that we have not looked into. Previous research for example pointed out the importance of social relationships for higher SWB (Ambrey et al., 2017; Elmer et al., 2020) and lower stress (Lucas & Dryenforth, 2006), but also how social relationships can cause stress, for example the fear of being excluded (Huang et al., 2019). This is potentially very important for stress and SWB, and something we have not looked into. Future research could look into the broader range of stressors for students, for example through a qualitative study.

Academic Stress

In terms of the stressor Academic Stress, the results suggest that Academic Stress is significantly related to both stress and SWB. The significant positive relationship between Academic Stress and stress indicates that as Academic Stress increases, so does overall stress. Furthermore, in the regression analysis, we discovered that from all the stressors, Academic Stress explained the most variance of stress, and it was the only significant predictor for stress when all predictors are combined in one model. Taken together, these results seem to indicate that Academic Stress does relate to the overall stress experienced by students. This finding is in line with the findings from Kumaraswamy (2013), who highlighted that higher levels of academic stress tends to result in negative effects on mental health, such as psychological distress.

For SWB, the relationship between Academic Stress and SWB was negative and significant. This result indicates that as Academic Stress increases, SWB decreases. Furthermore, in the regression analysis, it was discovered that Academic Stress explained the most variance of SWB, similarly to its effects on stress. Further, Academic Stress was highlighted as the only significant predictor for SWB when all predictors are combined in one model. Taken together, these results seem to indicate that Academic Stress does relate to the overall SWB of students. This result is in line with previous findings (Senocak & Demirirkan 2020; Yovisa & Asih 2017) highlighting that academic stress was significantly linked to a decrease of SWB among university students. It is important to note that Academic Stress was the most significant and largest predictor of stress and SWB in the present study, and the implications of this will be discussed in later sections.

Working alongside studies

In terms of SWB, the significance for Working Alongside Studies in the regression model indicates that Working Alongside Studies does predict SWB. The inverse relationship, also denoted in the correlation, coincided with our hypothesis that increased working hours would be linked to decreased SWB. It is possible that the reason that Working Alongside Studies was not significant in the multiple regression model is because working may only be influential in terms of SWB when students are working full-time, or working a considerable amount. This would mean that their routine would be more likely to revolve around working rather than studying, which would impact their SWB more. Eurostudent (2018) indicated that the majority of students were actively working in employment, however our very specific sample of Groningen students did not reflect this. Future research should take into account the small correlation and possibly look into nuances in the working-SWB relationship, for instance looking into students working above 20 hours per week, to see if this relationship is more relevant for such a sample. Individually, however, Working Alongside Studies did predict SWB, providing grounds for future research into these two variables together in the student population.

In terms of stress, the significance for Working Alongside Studies in the simple linear regression model indicated that Working Alongside Studies did predict stress. However, in the multiple regression model, Working Alongside Studies was not significant. The moderate correlation between these variables significant at .01 level justified running the regression, however 28% ($n = 48$) of the sample reported not to work at all. This suggests that the results were skewed in terms of Working Alongside Studies, making our nonsignificant results important, but possibly the group studied were not representative of working students, prompting the need for further research into stress in students using inclusion criteria for students to be employed, so working students can be specifically sampled and studied. The finding that student employment was the second most significant resource after family support (Eurostudent, 2018) may be reflected in this research in that most students did not rely on employment financially, however the importance of working to students in our sample was a lot less than in Eurostudent (2018) study. Considering Working Alongside Studies predicted stress individually, perhaps the combined model was premature, and research in this field should look into students who are employed in their sample, possibly in a questionnaire format to give students a voice into how working and studying simultaneously impacts their stress levels.

Student Loans

In terms of SWB, the lack of significance for Student Loans in the regression model indicates that student loans do not predict SWB in the hypothesised multiple regression model. Despite the moderate significant correlation ($r = -0.32$) between the variables, previous research attempting to explain the relationship in terms of excessive strain caused by student loans (Martin, 2016) is not applicable to our sample: the majority of the sample of the current study did not take out a student loan at all. The sample in Nissen and colleagues (2019) reported that they worked to prevent debt from building or to meet essential daily expenses, which was not relevant in the present study. Therefore, the relationship may not have been significant because the influence of student loans on SWB may be too small to be detected by the current study methods. Another possible reason for the nonsignificant result, could be because majority of the participants received financial aid from their parents. Repeating this study with a more precise measure of student loan may help identify if student debt can predict SWB. Another important finding was that 40% ($n = 65$) of the sample fell into the categories taking out 400 to 1000 euros as a student loan. Adema (2022) stated that in the Netherlands, even students who take out loans may need to supplement these costs from other financial sources, however less than half of our sample took out funds that would be necessary to pay both housing and living costs with. This could be interpreted to mean that either students are using other financial sources to fund their studying instead of student loans, or that actually students are supplementing these sources with student loan costs. Therefore, future research can determine if student debt should be researched in conjunction with SWB from a different theoretical perspective than as a stressor.

In terms of stress, the significance for Student Loans in the regression model indicates that Student Loans did predict stress in the hypothesised model. As expected, Student Loans and stress were positively and significantly related ($r = .371$), however the lack of significance in a regression may be interpreted to be linked to the perception of debt. Nissen and colleagues (2019) revealed the distinction between the debt involved in having a student loan and the perception of this debt, where the latter influenced the well-being more than the actual effects of debt. It is possible that the lack of significance for student loans predicting stress is due to societal expectations, specifically that it is societally acceptable for students to take out student loans, and this mitigates some stress about being in debt. In the Netherlands, taking out student loans is a common method of paying for higher education, with one source stating that 70% Dutch students take out student loans in the Netherlands (“Average Student Loans”, 2020) Therefore, it is possible that student loans do not have as large of an impact on stress compared to other studies because of differing societal pressures on students which are

not relevant to our sample. In the simple linear regression, student loans significantly predicted stress, so it is possible that the choice of stressors to include in the hypothesised model was premature, and more research into the theoretical background of how these stressors are related to SWB and stress, and each other, would be needed before combining them in a multiple regression.

Energy Crisis

In terms of SWB, the stressor Energy Crisis was significantly and relatively strongly correlated with SWB. When participants reported being strongly affected by the energy crisis, there was a significant decrease in their SWB. Out of all the stressors measured in the current study, the Energy Crisis had the second strongest correlation with SWB. When the Energy Crisis was individually regressed on SWB, it still significantly negatively predicted SWB. Surprisingly, when all stressors were entered in one multiple regression model, the individual impact of the Energy Crisis on SWB became insignificant.

In terms of stress, the Energy Crisis was significantly and quite strongly correlated with stress. When participants reported being strongly affected by the Energy Crisis, there was a significant increase in their stress score. Out of all the stressors measured in the current study, the Energy Crisis had the second strongest correlation with stress. When the Energy Crisis was individually regressed on stress, it still significantly negatively predicted stress. Surprisingly, when all stressors were combined, the individual impact of the Energy Crisis on stress became insignificant.

Why is this not the result in the combined regression analysis? Stressors have some overlap (e.g. energy crisis as well as the housing crisis cause strains on budget), possibly making the individual impact less significant when they are combined. Additionally, the present study is underpowered, possibly causing small significant effects to not be detected.

Even though the Energy Crisis was not a significant predictor of stress and SWB in the final regression model, it was clearly still an important factor in students' lives, affecting how they feel and act. This became clear when we asked students how they are influenced by the energy crisis. The energy crisis influenced students in many ways and most students indicated that they are influenced by the energy crisis in negative ways. This was evident to us through participants mentioning explicitly in their answers to the open question that they felt stressed or anxious because they believed they had less funds as a result of the energy crisis. Next to explicitly stating the psychological consequences of the energy crisis, many students experienced the practical consequences of the energy crisis for example through higher rents, and how they needed to adapt their behaviour to this new situation. Students gave many

examples of ways in which they needed to adjust their routine to deal with the energy crisis, for example by not showering at home anymore or living in temperatures that most people are not used to in the Netherlands. Clearly, the energy crisis can be a heavy burden to students in multiple ways. Students wrote down that they think they deserve an energy subsidy as well, for example after proving that their utility bills were higher.

The answers to the open question clearly suggested that the energy crisis predicted stress and SWB for many students.

Housing Crisis

The Housing Crisis was significantly and quite strongly correlated with SWB. When participants indicated that they were more strongly affected by the housing crisis, their SWB was significantly lower. After the predictors Academic Stress and the Energy Crisis, the Housing Crisis was most strongly correlated with SWB. When the Housing Crisis was individually regressed on SWB, it still significantly negatively predicted SWB. Surprisingly, when all stressors were combined, the Housing Crisis no longer had a significant effect on SWB.

In terms of stress, the Housing Crisis was significantly and quite strongly correlated with stress. When participants indicated that they were more strongly affected by the housing crisis, they reported significantly higher levels of stress. The Housing Crisis had the third strongest correlation with stress from all the predictors (only Academic Stress and the Energy Crisis were more strongly correlated). When the Housing Crisis was individually regressed on stress, it still significantly negatively predicted stress. However, when all stressors were combined, the Housing Crisis no longer had a significant effect on stress.

Even though the Housing Crisis was not a significant predictor of either stress or SWB in the final combined model, it was still an important factor in the lives of many students. However, it was not as prominently present as is the Energy Crisis, because only 43% of the participants ($n = 96$) indicated that they are influenced by the Housing Crisis, whereas 58.7% of the participants ($n = 135$) indicated that they are influenced by the Energy Crisis. However, the answers to the open question suggested that the Housing Crisis can be a heavy burden and even influence further life choices. Many students mentioned that it is difficult to find housing, in some cases even leading to homelessness. This is not a new phenomenon. The last couple of years at the beginning of every new academic year, students had trouble finding housing and pictures in the news of students sleeping at bus stops were well-known among Groninger residents (Van Nuland, 2022; Redactie Groningen, 2021). Some students explained how they take the housing crisis into account when deciding on further life choices. One

example was students who wanted to find a job somewhere not in Groningen, but decided to stay here because they then at least had a house. Another example that some of the participants gave concerns their romantic relationships. On the one hand, there were examples of students moving in with their partner sooner than preferred because it was impossible to find two accommodations. On the other hand, there were examples of students wanting to take the next step and live together with their partner, but not being able to find a new apartment. Another common example was that of students wanting to move out of their parents' home and live independently, but were forced to keep living with their parents because it was impossible to find an own place to live. These examples are in line with research by the NOS about how the housing crisis affects youth in the Netherlands, where they found that life decisions are postponed or altered because of the housing crisis (NOSop3, 2021).

The answers to the open questions suggested that the Housing Crisis can be an important stressor for students as well as a variable that often needed to be taken into account in various domains of life. However, it was not as influential as Academic Stress or the Energy Crisis.

COVID-19 Pandemic

In terms of the potential stressor COVID-19, the results suggest that COVID-19 is a significant predictor for stress. We found a positive and significant correlation between COVID-19 and stress, which indicates that as concerns or limitations of the COVID-19 pandemic increase, so does stress. In the regression analysis, this predictor was found to explain the least variance in stress, but it was a significant predictor when regressed individually. However, interestingly, it is not a significant predictor when all predictors are combined in one model.

In terms of SWB, the negative and significant correlation between COVID-19 and SWB suggests that as concerns or limitations of the COVID-19 Pandemic increase, SWB tends to decrease. Furthermore, the results suggest that COVID-19 is a significant predictor when regressed individually, however, it is not a significant predictor when all predictors are combined in one model. Although the COVID-19 Pandemic was the least impactful predictor, it still has an influence on SWB and stress even though the pandemic is over. It can be speculated that this may be due to the large-scale consequences and limitations caused by the pandemic, such as it being called the “largest disruption of education systems in human history” (Pokhrel & Chhetri, 2021). Furthermore, research conducted at the peak of the pandemic by Meo and colleagues (2020) discovered that 72% ($n = 2398$) of their sample

reported significant decreases to their SWB due to the COVID-19 Pandemic and the decreased social contacts it caused. Thus, although the COVID-19 Pandemic is not relevant in daily life anymore and there are no more restrictions, it still had a significant impact on stress and SWB in the present study.

Drugs- and Alcohol Use

Another goal of the present study was to investigate the relationship between substance use and stress and SWB. The results showed that the relationship between alcohol consumption and drug use was positive and significant. This means that for our sample, the people that consume more alcohol also tend to use more drugs, and vice versa.

In terms of SWB, the lack of a significant correlation with alcohol and drug use indicated that alcohol and drug use was not associated with SWB in our sample. However, when looking at the direction of the correlation, it was in line with our hypothesis. The people that consumed more alcohol and used drugs, also tended to score lower on SWB. There could be a couple of reasons why there was not found a significant relationship in this study. One major factor could be the low number of participants. Future research could focus on recruiting more people to look at these associations again to get more clarity.

In terms of stress, the lack of a significant correlation with alcohol and drug use indicated that alcohol and drug use could not be associated with stress in our sample. However, when looking at the direction of the correlation, it was in line with our hypothesis. The people that consumed more alcohol and used drugs, also tended to score higher on stress. Just like the case with SWB, the low number of participants could be related to this finding.

As mentioned in the results section, a large number of participants mentioned not to use drugs at all. As previous researchers suggest that social desirability plays a role in answering questions related to drugs (Latkin et al., 2017), the results in the present study could be an underestimation of the real number. Future research could use indirect methods to find out the real number. Another suggestion would be to use more items measuring drug use.

Limitations

There are several limitations that should be noted. First of all, the present study is underpowered. For a power of .80 we needed 688 participants. Instead of this we only had 171 suitable participants for the correlational and regression analyses. This indicates that, given that there is an effect, the chance of detecting the true effect is small. Another limitation of this study is the weakness of the research methods. Data were based on a self-reported general wellbeing survey. Researchers suggest that other factors like mood effects are linked

to judgments of general life-satisfaction (Schwarz et al., 1987). However, researchers comparing global measures of well-being with experiential measures of well-being, which require the continuous evaluation of immediate emotional experiences, concluded that these two methods have similar psychometric properties. (Hudson et al., 202). The third limitation relates to the question: "Do you study at the Hanze or RUG?". The option "I am not studying at either one" was not included in this question, meaning people could only choose between the two options. No guarantee could be given that all the people answering the questionnaire really studied at the Hanze or RUG. The last limitation relates to the open questions that were only coded by one researcher. To ensure reliability it would be better to code the open questions by more than one researcher.

Implications

The results of the present study show that the situation concerning students' stress and SWB can and should be improved. Even though the situation has not dramatically worsened since 2017, it has not improved much either, resulting in that much can be done to improve the situation. Through the present study, students in Groningen have been given a voice to give suggestions to improve the situation.. The open questions in the current study allowing students to suggest improvements from their experience were answered by more than 220 students (these questions were answered by more participants than the demographic questions and the questions about the dependent and independent variables), which highlights that future research should continue to actively help students to play a role in improving their living conditions. The most important points for improvement according to the students in this study is the housing situation of students in Groningen and the financial situation of students. In addition, from the stressors we have investigated, the stressor Academic Stress had the most influence on students' SWB and stress, suggesting that improvement is needed on this domain as well. Finally, the current study found that while certain stressors were relevant to a proportion of the sample, they were not necessarily relevant to all of the students in the sample. This prompts the need to continue to coordinate with students in Groningen and aid them in accessing resources or contacts that may improve their situation, for example having the opportunity to discuss with organisations that can help them to access housing, if necessary. Because the proportion of students may not be the majority, these difficulties and voices may not be taken seriously by policymakers or related organisations.

Housing

Many students have voiced their concerns about the current situation concerning housing and the way in which it is organised and regulated. They gave a couple of suggestions

on how it could be improved. Firstly, the University of Groningen should not allow students to study there when there is no housing available for them. When they accept students, they should help students with finding housing in Groningen. Secondly, there should be a stricter limit to the maximum rent that can be asked for a room or apartment. Right now, only the rent of “social rent” is regulated, resulting in unfair and very high rent costs for many students (Tromp, 2021). Another suggestion to regulate the rent prices is to create one official platform to find housing. One official platform for all the student housing and for a fair price, not the many different websites that is the case now. Future research could look into what is necessary to create such a platform. Fourthly, students suggest creating new forms of accommodation or when building new housing, decide to build types of accommodation that are specifically efficient to housing students. Examples that are given are dorms and shared rooms. Another option would be to build more of the so-called “container houses”, that are already built in a couple of places in Groningen (Antillenstraat and Vrydemalaan): build more of those and rent them for a normal price. This is also the suggestion of student Lysanne Kloosterman (Kloosterman, 2022). Future research could look into more options for affordable and efficient student housing and ask students about their own suggestions and ideas how this could be implemented. In the present study, some students gave suggestions, but the research was not focused on finding new housing options. However, the present research shows that is an important next step. Another suggestion related to this, is that students wish that landlords will be controlled more strictly, to ensure a fair price for accommodation and accommodation of quality.

Financial Compensation

A discussion topic already popular in the Netherlands at the moment was also mentioned by the students in our research: monetary compensation for students. Students believe that it would help them if they would be financially supported by the government. There are multiple ways in which this is possible. Some students mention the “basisbeurs” that is coming back as a fair compensation, but a compensation for the students who have never received money in the form of a “basisbeurs” as well. In addition, students suggest financially compensating them for the high prices, adjustments and stress that the energy crisis has caused. One way in which students could be compensated is allowing them to receive the energy subsidy as well. Thirdly, students suggest making public transport more affordable.

Information and Support

Some students indicated that they would like to receive more information. It could possibly help the students if the RUG and Hanze and municipality or government would help students more by providing information about a wide range of topics, for example: (where students can find) juridical support, information on how to reduce utility costs, information about what are students' rights concerning rent and landlords and information on how to navigate the Dutch (Groninger) housing market. Additionally, it could be helpful to guarantee that every student speaks to a school psychologist (or someone in a related job) to prevent problems (e.g. stress) instead of students needing to approach such a person by themselves, which could be a big step for some students to take.

Academic Stress

As academic stress was the most significant predictor in our study, indicating that it had the most influence on stress and SWB, it is important to consider. In previous research, the main factors which predicted academic stress were workload, time-management difficulties, and exam format (Bedewy & Gabriel, 2015). In the present study, we found that the highest predictor of academic stress was uncertainty about expectations in courses. Other predictors included the intellectual demands of courses and time demands of courses, and university fees. As uncertainty about course expectations is deemed the highest predictor of academic stress, perhaps an improvement could be to increase or improve the communication between lecturers / teachers and students. In doing so, the uncertainty that students face about what to expect in a course, in terms of workload, assignments, and exams, could be decreased. Furthermore, it is important to ensure that students feel comfortable asking questions and communicating any concerns they have with their professors. In terms of the time demands of courses, this result may suggest that time-management abilities can be improved among students. For example, perhaps the university can make time-management courses or workshops that they offer more accessible or promoted to students. Furthermore, reducing the costs or providing free courses could be an additional help. For example, on the RUG website, the price for six time-management sessions is €750 (Time Manage yourself and your work, 2023). Additionally, in terms of intellectual demands of courses, perhaps the university can offer free or low cost tutoring or additional help for students who may struggle with the intellectual demands or the content of courses.

Conclusion

Concerns related to stress and SWB are prevalent within the student population, therefore, the aim of this paper was to conduct a research about stress and SWB among students studying in

Groningen. We aimed to discover which stressors predict the most stress and SWB scores for students, as well as to compare the current situation concerning stress to the situation in 2017, in accordance with prior research by the Groninger Studentenbond. All in all, Academic Stress was found to be the predictor which had the largest influence on stress and SWB, the Energy Crisis the second largest influence and the Housing Crisis the third largest influence. The COVID-19 Pandemic was the predictor with the smallest influence. Additionally, when considered individually, Working alongside studies, Student Loans, the Housing Crisis, COVID-19 Pandemic, and the Energy Crisis had significant effects on stress and SWB. Answers to the stress questionnaire, for example that only 1.8% of the participants indicated that stress is not at all present in their life and that more than a third of the students indicate that it is getting increasingly difficult to deal with challenges that happen in their life, suggest that the situation should be improved. Our results are correlational in nature, which indicates that no cause and effect conclusions can be drawn about the significant relationships discovered. Nonetheless, the results pose important implications about what can be done to improve issues related to stress and SWB amongst students in Groningen.

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Appendix A

Introduction

Thank you for your interest in participating in this research. We as the research team of the Groninger Studentenbond, are conducting research to get a better understanding of the situation concerning wellbeing and stress among students. Firstly, we will ask a couple of general questions, afterwards will follow questions about your daily life and how you are feeling. The questionnaire will take approximately 15 minutes to complete. Of course, you can stop at any moment and do not need to complete the questionnaire if you have a reason why you do not want to do that. Your answers will be processed anonymously. Your answers will be stored digitally. The answers can be used for publication of the research, but it will not be possible to trace the answers back to you personally. You can always ask questions about this research: now, during the research or afterwards. You can do that by contacting the research team of the Groninger Studentenbond (onderzoeksbureau@groningerstudentenbond.nl)

Fijn dat je belangstelling hebt om mee te doen aan dit onderzoek. Namens het onderzoeksbureau van de Groninger Studentenbond doen we een onderzoek naar hoe het met studenten gesteld is met betrekking tot hun welzijn en stress. Eerst stellen we een aantal algemene vragen, daarna vragen over jouw dagelijks leven en over hoe je je voelt. Alles bij elkaar zal het meedoen aan dit onderzoek ongeveer 15 minuten duren. Je bent natuurlijk vrij om te stoppen met dit onderzoek wanneer jij wilt, jij bent ons niets verschuldigd. Al jouw gegevens zullen anoniem verwerkt worden. Meer informatie over gegevensverwerking en jouw rechten: jouw gegevens zullen digitaal worden opgeslagen. De gegevens kunnen worden gebruikt voor een publicatie, maar ze zullen nooit terug te leiden zijn tot jou als persoon. Je kunt altijd vragen stellen over het onderzoek: nu, tijdens het onderzoek, of na afloop. Dit kan door contact op te nemen met de onderzoekscommissie van de GSb (onderzoeksbureau@groningerstudentenbond.nl).

I agree with the above and wish to participate / Ik heb bovenstaande tekst gelezen en begrepen, en wil meedoen met dit onderzoek

- Yes *Ja*
- No *Nee*

Demographics

2. What is your gender? *Ik identificeer me als?*

- Male / *man*
- Female / *vrouw*
- Other / *anders*
- Rather not tell / *Vertel ik liever niet*

3. What is your age? *Wat is je leeftijd?*

- 18 and younger / *18 of jonger*
- 19
- 20
- 21

- 22
- 23
- 24
- 25 and older / 25 of ouder

4. I am a(n): *Ik ben een:*

- Dutch student / *Nederlandse student*
- International student / *Internationale student*

5. I study at the: *Ik studeer aan de:*

- RUG
- Hanze

6. If you selected “I study at the RUG”: What is your faculty?

- Economics and Business (Economie en Bedrijfskunde)
- Behavioural and Social Sciences (Gedrags- en Maatschappijwetenschappen)
- Theology and Religious Studies (Godgeleerdheid en Godsdienstwetenschap)
- Arts (Letteren)
- Medical Sciences (Medische Wetenschappen)
- Law (Rechtsgeleerdheid)
- Spatial Sciences (Ruimtelijke Wetenschappen)
- Science and Engineering
- Philosophy (Wijsbegeerte)
- University College Groningen
- Campus Fryslân

7. If you selected “I study at the Hanze”: What is your school? / Als je “Ik studeer aan de Hanze” heb geselecteerd: Aan welke school of instituut studeer je?

- Lucia Marthas Institute of Performing Arts (Dansacademie Lucia Marthas)
- Minerva Art Academy (Academie Minerva)
- Prince Claus Conservatoire (Prins Claus Conservatorium)
- School of Education (Pedagogische Academie)
- School of Social Studies (Academie voor Sociale Studies)
- International Business School (International Business School)
- Institute of Future Environments
- School of Business Management (Instituut voor Bedrijfskunde)
- School of Communication, Media & IT (Instituut voor Communicatie, Media & IT)
- School of Business, Marketing and Finance
- School of Law (Instituut voor Rechtenstudies)
- School of Health Care Studies (Academie voor Gezondheidsstudies)
- School of Nursing (Academie voor Verpleegkunde)
- School of Sports Studies (Instituut voor Sportstudies)
- Institute of Life Science & Technology
- Institute of Engineering

8. In which phase of your studies are you? / *In welke fase van je studie zit je?*

- Bachelor's Programme / *Bachelor opleiding*
- Master's Programme / *Master opleiding*
- Pre-master Programme / *Pre-master programma*
- PhD

9. Have you had a study delay, if yes how many years? *Heb je studievertraging opgelopen, en zo ja: hoeveel jaren vertraging?*

- I have not had a study delay / *Ik heb geen studievertraging*
- 6 months / *6 maanden*
- 1 year delay / *1 jaar vertraging*
- 2 years delay / *2 jaren vertraging*
- More than 2 years delay / *Meer dan 2 jaren vertraging*

10. I am studying / *Ik studeer*

- Full-time
- Part-time

11. What is your average grade? *Wat is je gemiddelde cijfer?*

- 4.4 or lower / *4.4 of lager*
- 4.5-5.4
- 5.5-6.4
- 6.5-7.4
- 7.5-8.4
- 8.5 or higher / *8.5 of hoger*

Stressors and drugs

12. Do you work alongside your studies? / *Werk je naast je studie?*

- Yes / *Ja*
- No / *Nee*

13. How many hours do you work per week alongside your studies, on average? *Hoeveel uren werk je gemiddeld naast je studie per week?*

- I do not work / *Ik werk niet naast mijn studie*
- 1-5 hours / *1-5 uren*
- 5-12 hours / *5-12 uren*
- 12-22 hours / *12-22 uren*
- 22-30 hours / *22-30 uren*
- 30 + hours / *Meer dan 30 uren*

14. Do you receive any financial support from your parents? *Word je financieel door je ouders gesteund, bijvoorbeeld door een maandelijkse financiële bijdrage?*

- Yes / *Ja*
- No / *Nee*

15. Do you have a student loan? / *Heb je een studielening?*

- Yes / *Ja*
- No / *Nee*

16. How many euros do you approximately receive from DUO on a monthly basis? This excludes the "aanvullende beurs". *Hoeveel geld ontvang je ongeveer elke maand van DUO?*

We bedoelen hiermee het bedrag dat je leent, de aanvullende beurs laten we buiten beschouwing.

- I do not have a student loan / *Ik heb geen studielening*
- €1-150
- €150-400
- €400-700
- €500-960

17. How often do you drink alcohol on average? *Hoe vaak nuttig je gemiddeld alcohol?*

- Daily / *Dagelijks*
- Weekly / *Wekelijks*
- Monthly / *Maandelijks*
- 2-4 times a year / *2-4 keer per jaar*
- Yearly / *1 keer per jaar*
- Biannually / *1 keer per 2 jaar*
- Never / *Nooit*

18. Choosing from the options below, in which context do you most often drink alcohol? / *Maak een keuze uit de onderstaande mogelijkheden, in welke context drink je het vaakst alcohol?*

- I drink with friends/family at home/ *Ik drink thuis met vrienden/familie*
- I drink with friends/family out at bars, restaurants etc. *Ik drink buitenshuis met vrienden/familie in bars, restaurants etc.*
- I drink outside of social contexts (e.g. a glass of wine with dinner) / *Ik drink buiten sociale contexten om (bijvoorbeeld een glas wijn tijdens het avondeten)*
- I drink in a(n) academic / work setting (e.g. networking event) / *Ik drink in een academische- / werksetting (bijvoorbeeld tijdens een netwerk event)*
- Not applicable / *Niet van toepassing*

19. How often do you use recreational drugs? (soft drugs (e.g. cannabis and hash), hard drugs (e.g. ritalin without prescription, ecstasy, cocaine) or psychedelics (e.g. LSD or psilocybin)) / *Hoe vaak gebruik je recreatieve drugs? (soft drugs (bijvoorbeeld cannabis of hash), hard drugs (bijvoorbeeld ritalin zonder recept van de dokter, ecstasy and cocaïne) of psychelica (bijvoorbeeld LSD of psylocibyne))*

- Daily / *Dagelijks*
- Weekly / *Wekelijks*
- Monthly / *Maandelijks*
- 2-4 times a year / *2-4 keer per jaar*
- Yearly / *1 keer per jaar*
- Biannually / *1 keer per 2 jaar*
- Never / *Nooit*

20. Choosing from the options below, in which context do you most often use recreational drugs? (soft drugs (e.g. cannabis and hash), hard drugs (e.g. ritalin without prescription, ecstasy, cocaine) or psychedelics (e.g. LSD or psilocybin)). / *Maak een keuze uit de onderstaande mogelijkheden, in welke context gebruik je het vaakst recreatieve drugs? (soft*

drugs (bijvoorbeeld cannabis of hash), hard drugs (bijvoorbeeld ritalin zonder recept van de dokter, ecstasy and cocaine) of psychedelica (bijvoorbeeld LSD of psilocybine)

- I use recreational drugs with friends/family/ at home / *Ik gebruik recreatieve drugs thuis met vrienden/familie/thuis*
- I use recreational drugs with friends/family out at bars, techno raves etc. / *Ik gebruik recreatieve drugs buitenshuis met vrienden/familie in bars, techno raves etc.*
- I use recreational drugs outside of social contexts (e.g. a spiritual individual journey) / *Ik gebruik recreatieve drugs buiten sociale contexten om (bijv. een individuele spirituele reis)*
- I use recreational drugs in a(n) academic/work setting (e.g. to work harder or perform better) / *Ik gebruik recreatieve drugs in een academische- / werksetting (bijvoorbeeld tijdens een netwerk event)*
- Not applicable / *Niet van toepassing*

22. Are you affected by the energy crisis in your (daily) life (higher prices for gas and electricity)? / *Word je in je (dagelijks) leven beïnvloed door de energiecrisis (hogere prijzen voor gas en elektriciteit)?*

- Yes / *Ja*
- No / *Nee*

23. Can you give an example of how the energy crisis (higher prices for gas and electricity) has affected your (daily) life? *Kan je een voorbeeld geven hoe de energie crisis (de hogere prijzen voor gas en elektriciteit) je (dagelijks) leven heeft beïnvloed?*

24. Are you affected by the housing crisis (fewer available houses/rooms and for example consequently higher prices for rent) in your (daily) life? / *Word je in je (dagelijks) leven beïnvloed door de huizen crisis (dat er weinig beschikbare woonruimte is en bijvoorbeeld de hogere prijzen voor huur die daar het gevolg van zijn)?*

- Yes / *Ja*
- No / *nee*

25. Can you give an example of how the housing crisis (fewer available houses/rooms and for example consequently higher prices for rent) has affected your (daily) life? *Kan je een voorbeeld geven van hoe de huizen crisis (dat er weinig beschikbare woonruimte is en bijvoorbeeld de hogere prijzen voor huur die daarvan het gevolg zijn) je (dagelijks) leven heeft beïnvloed?*

26. Do you think the government or municipality should do more to help students (financially)? If yes, in what way? *Ben je van mening dat de overheid of de gemeente studenten (financieel) beter zou moeten helpen? Zo ja, op wat voor manier?*

- Yes / Ja
- No / Nee

27. My suggestion would be / *Mijn suggestie zou zijn:*

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Stressors

28.

To what extent has each of the following been a source of stress to you this semester? (Please circle 0, 1, 2, 3,4 as appropriate) / <i>In welke mate was elk van de volgende onderwerpen/situaties een bron van stress voor je in het afgelopen semester? Omcirkel 0, 1, 2, 3 of 4 waarvan jij denkt dat die het meeste van toepassing is op jou.</i>					
	Not at all / <i>Helemaal niet</i>	A little / <i>Een beetje</i>	Some- what / <i>Redelijk</i>	Quite a bit / <i>Best veel</i>	A great deal/ <i>Heel veel</i>
Overall personal financial situation / <i>Je financiële situatie in het algemeen</i>	○	○	○	○	○
Being able to pay rent/mortgage / <i>In staat zijn om je huur of hypotheek te betalen</i>	○	○	○	○	○
Being able to pay for gas, electricity and water / <i>In staat zijn om gas en elektriciteit te betalen</i>	○	○	○	○	○
Capability to participate in actions related to your social life (e.g., buying birthday presents, taking public transport to visit a friend, go clubbing) / <i>Het vermogen om deel te nemen aan sociaal-gerelateerde activiteiten (bijv. kado's kopen, het openbaar vervoer gebruiken om een vriend te bezoeken, uitgaan)</i>	○	○	○	○	○
Quality of living situation, including location or/and housemates / <i>De kwaliteit</i>	○	○	○	○	○

<i>van je woonsituatie, bijvoorbeeld de locatie en met wie je woont</i>					
Lack of control over your living situation / <i>Geen controle hebben over hoe en waar je woont</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cost of study books / equipment / <i>Kosten van studieboeken/studiemateriaal</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
University fees / <i>Collegegeld</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intellectual demands of the course / <i>Wat er intellectueel gezien van je gevraagd wordt tijdens je opleiding</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time demands of the course / <i>Hoeveel tijd je kwijt bent aan je opleiding</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uncertainty about expectations in the course / <i>Onzekerheid over verwachtingen tijdens je opleiding</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Amount of material to be learnt in the course / <i>De hoeveelheid leerstof tijdens je opleiding</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Balancing working and studying / <i>Het balanceren van werken en studeren</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not being able to study due to working / <i>Niet kunnen studeren omdat je moet werken</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working affecting your study grades / <i>Dat werk je studiecijfers beïnvloed</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work-life balance / <i>Werk-privé balans</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Limitations and adjustments related to COVID-19 concerning your studies / <i>COVID-19 gerelateerde beperkingen en aanpassingen aan jou studie</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

be stunted after I graduate, as a direct result of student loans / <i>Ervaren/waargenomen consequenties van je studieschuld: denken dat je een nadeel hebt of wordt belemmerd door je studieschuld na afstuderen</i>						
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Subjective Well-being and Stress

30. Thinking about yourself and how you normally feel, to what extent do you generally feel... / *Als je denkt aan jezelf en hoe je normaal gesproken voelt, in welke mate voel je je in het algemeen*

	Nooit / <i>Never</i>	Soms / <i>Sometimes</i>	Regelmatig / <i>Regularly</i>	Vaak / <i>Often</i>	Altijd / <i>Always</i>
Upset <i>Van streek</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hostile <i>Vijandig</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alert <i>Alert</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ashamed <i>Beschaamd</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inspired <i>Geïnspireerd</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nervous <i>Nerveus</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Determined <i>Vastbesloten</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attentive <i>Oplettend</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Afraid <i>Bang</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Active <i>Actief</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

31. Indicate to what extent you agree with the following statements / *Geef aan in welke mate je het eens bent met de volgende stellingen*

	Helemaal niet mee eens/ <i>Strongly disagree</i>	Niet mee eens / <i>Disagree</i>	Neutraal / <i>Neutral</i>	Mee eens / <i>Agree</i>	Helemaal mee eens / <i>Strongly agree</i>
In most ways, my life is close to ideal / <i>Op de meeste manieren / vlakken is mijn leven vrij perfect</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The conditions in my life are excellent / <i>De omstandigheden in mijn leven zijn excellent</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with my life / <i>Ik ben tevreden met mijn leven</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
So far I have gotten the important things I want in life / <i>Tot nu toe, heb ik de belangrijkste dingen die ik graag wil in mijn leven gekregen</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I could live my life over, I would change almost nothing / <i>Als ik mijn leven opnieuw kon leven, zou ik haast niets veranderen</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

33. Indicate for each statement which option is most applicable to you / *Geef bij de volgende stellingen aan wat het meeste van toepassing is op jou*

	Helemaal niet op mij van toepassing / <i>This does not apply to me at al</i>	Grotendeels niet op mij van toepassing / <i>This does not apply to me for the most part / most of the time</i>	Deels wel/deels niet op mij van toepassing / <i>This somewhat applies to me</i>	Grotendeels wel op mij van toepassing / <i>This does apply to me for the most part / most of the time</i>	Helemaal op mij van toepassing / <i>This completely applies to me</i>
I feel like I am in control during the course of my study / <i>Ik heb het idee dat ik</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<i>de controle heb tijdens mijn studieverloop</i>					
I feel like I can handle important changes in my life well (moving out of my parents' house, choosing what I want to study) / <i>Ik heb het idee dat ik goed om kan gaan met belangrijke veranderingen in mijn studentenleven (uit huis gaan, studiekeuze etc.)</i>	○	○	○	○	○
In general, I feel calm / <i>Ik heb over het algemeen een kalm gevoel</i>	○	○	○	○	○
I feel like it's getting increasingly difficult to deal with the challenges that happen in my life / <i>Ik heb het idee dat ik steeds minder goed om kan gaan met de uitdagingen in mijn leven</i>	○	○	○	○	○
I feel like I am often irritated by small things, small things that did not irritate me before / <i>Ik heb het idee dat ik vaak geïrriteerd ben door kleine dingen, waar ik me eerder nooit aan ergerde</i>	○	○	○	○	○
I often feel angry or irritated / <i>Ik voel me veelal boos of geïrriteerd</i>	○	○	○	○	○

I feel like I can deal with most of the setbacks that occur in my life / <i>Ik heb het gevoel dat ik de meeste tegenslagen die in mijn leven voorkomen aankan</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel like I deal with the difficulties in my life effectively/ <i>Ik vind dat ik effectief omga met moeilijkheden in mijn leven</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often feel pressure or pressure / <i>Ik voel vaak veel druk</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stress or pressure is something that is constantly present in my student life / <i>Stress/druk is iets dat constant aanwezig is in mijn studentenleven</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think that I experience more stress than other students / <i>Ik heb het idee dat ik meer stress ervaar dan mijn medestudenten</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Generally speaking, I sleep well / <i>Over het algemeen slaap ik goed</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel well-rested during the day / <i>Ik voel me overdag uitgerust</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Concluding remarks

34.

By filling in this questionnaire, you have the possibility to win a prize through a raffle. You have the chance of winning 1 of the 2 bol.com giftcards of €15. Winners will be contacted by email in April. We will use this information solely for the raffle. If you want to participate in the raffle, you can fill in your email address here: / *Door mee te doen aan deze vragenlijst, heb je de mogelijkheid om mee te doen aan een loterij waarbij 2 bol.com tegoedbonnen van €15 verloot worden. De winnaars hiervan worden in april via e-mail door ons gecontacteerd. Deze informatie wordt uitsluitend gebruikt voor de loterij. Als je mee wil doen, kun je hieronder je e-mailadres invullen:*

35.

Do you have any comments or something you would like to add? / *Heb je nog opmerkingen of iets wat je graag kwijt wil?*

36.

You have reached the end of the survey. Thank you for participating in this research! If you have any questions, you can also send an email to the research team of the Groninger Studentenbond: onderzoeksbureau@groningerstudentenbond.nl / *Dat was het! Hartelijk bedankt voor jouw deelname aan het onderzoek! Als je vragen hebt kan je de onderzoekscommissie van de GSb mailen: onderzoeksbureau@groningerstudentenbond.nl.*

Appendix B

Table B1
Answers Stress Questionnaire

Question	This does not apply to me at all	This does not apply to me for the most part / most of the time /	This somewhat applies to me	This does apply to me for the most part / most of the time	This completely applies to me
I feel like I am in control during the course of my study	10 (5.8%)	33 (19.3%)	60 (35.1%)	57 (33.3%)	11 (6.4%)
I feel like I can handle important changes in my life well (moving out of my parents' house, choosing what I want to study)	8 (4.7%)	27 (15.8%)	37 (21.6%)	73 (42.7%)	26 (15.2%)
In general, I feel calm	21(12.3%)	64 (37.4%)	44 (25.7%)	33 (19.3%)	9 (5.3%)
I feel like it's getting increasingly difficult to deal with the challenges that happen in my life	16 (9.4%)	46 (26.9%)	46 (26.9%)	44 (25.7%)	19 (11.1%)
I feel like I am often irritated by small things, small things that did not irritate me before	23 (13.5%)	43 (25.1%)	50 (29.2%)	43 (25.1%)	12 (7%)
I often feel angry or irritated	33 (19.3%)	64 (37.4%)	38 (22.2%)	25 (14.6%)	11 (6.4%)

I feel like I can deal with most of the setbacks that occur in my life	5 (2.9%)	33 (19.3%)	50 (29.2%)	74 (43.3%)	9 (5.3%)
I feel like I deal with the difficulties in my life effectively	10 (5.8%)	37 (21.6%)	53 (31%)	59 (34.5%)	12 (7%)
I often feel stress or pressure	5 (2.9%)	13 (7.6%)	29 (17%)	71 (41.5%)	53 (31%)
Stress or pressure is something that is constantly present in my student life	3 (1.8%)	16 (9.4%)	38 (22.2%)	61 (35.7%)	53 (31%)
I think that I experience more stress than other students	22 (12.9%)	44 (25.7%)	38 (22.2%)	44 (25.7%)	23 (13.5%)
Generally speaking, I sleep well	11 (6.4%)	38 (22.2%)	42 (24.6%)	54 (31.6%)	26 (15.2%)
I feel well-rested during the day	25 (14.6%)	52 (30.4%)	48 (28.1%)	38 (22.2%)	8 (4.7%)

Appendix C

Correlations between the items of the stressors and the dependent variables.

Table C1

Stress item	Stress	SWB
Overall personal financial situation	.396**	-.358**
Being able to pay rent / mortgage	.280**	-.286**
Being able to pay for gas, electricity, and water	.272**	-.349**
Capability to participate in actions related to your social life (e.g., buying birthday presents, taking public transport to visit a friend, go clubbing)	.397**	-.368**
Quality of living situation, including location or/and house mates	.341**	-.377**
Lack of control over how and where you live	.319**	-.357**
Cost of study books / equipment	.255*	-.242**
University fees	.341**	-.299**
Intellectual demands of courses	.422**	-.284**
Time demands of courses	.392**	-.296**
Uncertainty about expectations in courses	.459**	-.372**
Amount of material to be learned in courses	.286**	-.173**
Balancing working and studying	.282**	-.191**
Not being able to study due to working	.236**	-.176**
Working affecting your study grades	.217**	-.163**
Work-life balance	.362**	-.241**
Limitations and adjustments related to COVID-19 concerning your studies	.235**	-.200**
Limitations and adjustments because of COVID-19 concerning your social life	.135**	-.099**
Limitations and adjustments because of COVID-19 concerning your work(ing life)	.197**	-.137**
Consequences of COVID-19 on your health (including physical and mental health)	.327**	-.311**
Fear of another pandemic	.327**	-.308**
The situation concerning your study debt	.394**	-.379**

The situation concerning your student loans	.354**	-.321**
Perceived consequences of debt: thinking I am "behind" or will be stunted after I graduate, as a direct result of student loans	.308**	-.216**

Note. **. Correlation is significant at the 0.01 level (2-tailed)

Appendix D

Assumption Checks Multiple Regression

Before running the multiple regression analysis with the significant predictors, the relevant assumptions were checked. The data met the assumption of normality for both SWB and Stress (see Figure D1 and D2). The data met the assumption of homoscedasticity (see Figure D3 and D4) for both SWB and stress. The data met the assumption of independent errors when SWB (*Durbin-Watson* = 1.89) and stress (*Durbin-Watson* = 1.94) were used as dependent variables. Each variable had a variance inflation factor below 10 (see tables D1 and D2), and low correlations between variables indicate the multicollinearity assumption has not been violated (see Table D3). Inspecting the Cook's distance for each analysis indicates that there are no outliers in SWB or stress, because the Cook's Distance is below 1.0: for SWB the maximum value for *Cook's Distance* = .109 and for stress the maximum value for *Cook's Distance* = .058.

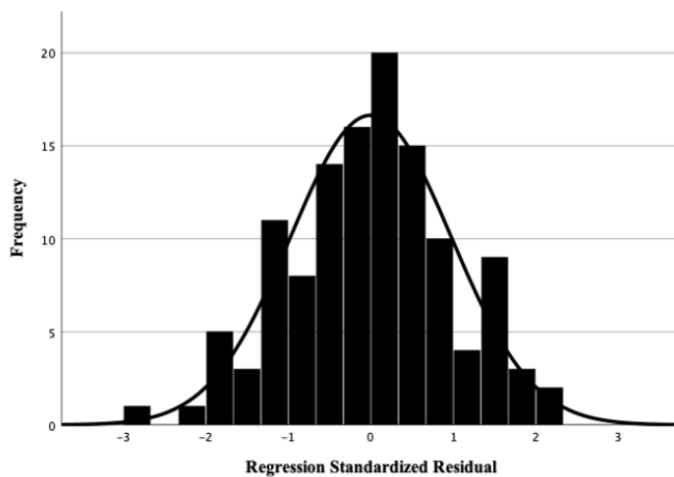


Figure D1. SWB normality assumption

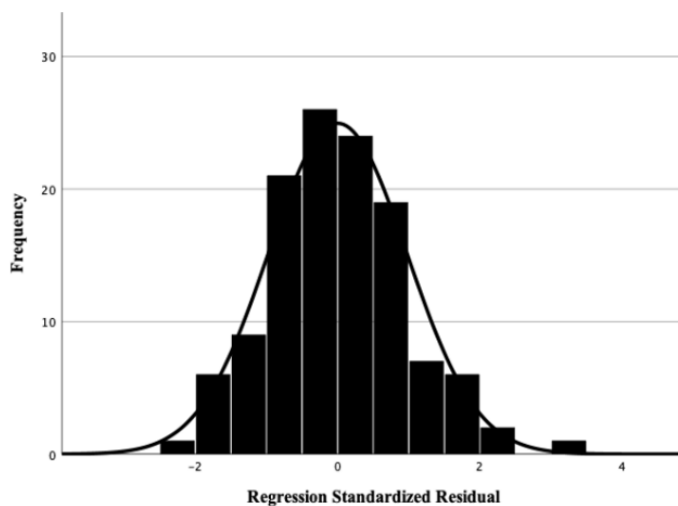


Figure D2. Stress normality assumption



Figure D3. SWB homoscedasticity Scatterplot



Figure D3. Stress homoscedasticity Scatterplot

Table D1.

VIF values for SWB as a dependent variable.

Model		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics		
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	4.168	.184		22.702	<.001		
	Stressor_Housing	-.100	.061	-.183	-1.647	.102	.517	1.933
	Stressor_Energy	-.100	.072	-.169	-1.385	.169	.426	2.347
	Stressor_Academic	-.163	.066	-.244	-2.474	.015	.657	1.521
	Stressor_Working	.013	.049	.027	.271	.787	.667	1.500
	Stressor_COVID	.006	.052	.010	.125	.901	.908	1.101

Stressor_Student_Loan	-.029	.042	-.069	-.687	.493	.642	1.557
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a. Dependent Variable: SWB

Table D2.

VIF values for Stress as a dependent variable.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.454	.203		7.179	<.001		
	Housing	.128	.067	.193	1.895	.061	.517	1.933
	Energy Crisis	.035	.080	.049	.441	.660	.426	2.347
	Academic Stress	.328	.073	.406	4.499	<.001	.657	1.521
	Working	.004	.054	.007	.080	.936	.667	1.500
	COVID	.058	.057	.078	1.020	.310	.908	1.101
	Student Loan	.042	.047	.083	.906	.367	.642	1.557

a. Dependent Variable: Stress

Table D3.

Correlations between variables

Correlations								
	Stress	SWB	H	EC	AS	W	COVID	SL

	N	171	171	171	171	171	171	171	122
W	Pearson Correlation	.324**	-.227*	.307**	.423**	.342**	1	.141	.446**
	Sig. (2-tailed)	<.001	.003	<.001	<.001	<.001		.066	<.001
	N	171	171	171	171	171	171	171	122
COVID	Pearson Correlation	.289**	-.249*	.252**	.291**	.211**	.141	1	.208*
	Sig. (2-tailed)	<.001	.001	<.001	<.001	.006	.066		.021
	N	171	171	171	171	171	171	171	122
SL	Pearson Correlation	.371**	-.321*	.443**	.538**	.386**	.446**	.208*	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	.021	
	N	122	122	122	122	122	122	122	122

Note. N = 227. SWB: Subjective wellbeing; H: housing crisis; EC: energy crisis; W: working alongside studies; COVID: COVID-19 stress; SL: student loans

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).