Master thesis:

The ‘Millennial Disease’

Stress and work-life balance among Millennials

Utrecht University

Student: Sofie Ronduite

Student number: 5731852

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Supervisor: Tracy Cheung

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Abstract

Works stress is increasing, especially among Millennials, 18-38-year olds, of which one out of seven experiences this. Concerning, since they represent the largest part of the job market. The aim of this study was to find which factors contribute to this stress. While a lot of research was conducted on what differs Millennials from other generations, and Millennials' value of work and life, it is still unclear why the numbers of stress are so high. To find out what factors are contributing to the stress of Millennials, the following factors were tested on their predictability of stress: *career prospect, work-life balance, ideal work hours* and *work conditions.* The European Work Condition Survey was used in a Multiple regression analysis, including Millennials among Europe, aged 18-38, (*N*=15902). The model with the highest variability included predictors: *fixed contract, fixed salary, fixed hours, work-life balance, difference in hours, gender, support of boss* and *commute time*. *Difference in hours* was found to be a moderator of *work-life balance*. Career prospect was not a significant predictor. Current results confirm these predictors contribute to stress among Millennials, yet it does not find the reason why these cause stress. Future research should focus on why already known factors increase stress. Once the underlying reasons behind the stress can be established, solutions can be looked for to prevent stress from becoming the 'Millennial disease'.

Introduction

Prolonged stress 'the number one employment disease' (Tiggelaar, 2017), has been reported all over the newspapers over the last decades. According to Central Bureau Statistics (CBS, 2015), the numbers of stress and other burnout symptom occurrences have risen to 14 percent of the employees in the Netherlands, meaning one out of 7 people experience this. This is not just a problem for employees, it is costly for employers as well. Sick leave because of prolonged stress results in a total cost of 2.7 million euros for employers in the Netherlands (TNO, 2012). According to European Agency for Safety and Health at Work (2009), "stress is common among Europe" (OSH report, 2009, p9). Recently, stress is very high among young people (Wang, Mark, Niiya, 2014). The number of people experiencing burnout symptoms, including stress, seems especially high among the age group 25 to 35 (CBS, 2015). No wonder, newspapers and sites worldwide are reporting massively on burnouts and stress amongst 18 to 38-year olds (New York Post, 2018; Volkskrant, 2018; ABC News, 2019). All these statistical figures highlight an age group (i.e., 18 to 38-year-old) considered the Millennials generation. Accordingly, the current study focuses on the possible factor contributing to stress among Millennials. In hope of finding out why the numbers are so high among this new generation of employees.

Each day five people under thirty in the Nordic countries, retire because of stress related health problems (Raqitasalo & Maaniemi, 2011, as cited in Kultalahti, 2011). This is especially concerning since most of those employers have not even been working for ten years and have still many years of working ahead. Millennials are currently making up the majority of the workforce (Fry, 2018) and are the generation who will have to work longer than previous generations (Finnish Centre for pensions, 2019). The work environment needs to adapt to this generation. Considering stress and burnouts often go hand in hand with depressions (Ahola, Hakanen, Perhoniemi, Mutanen, 2014), it is even more of an alarming issue, especially since the World Health Organization calls depression the biggest cause of disability around the world, as well as a major player, in the total burden of global diseases (WHO, 2018). Even though the health costs are already a burden for society, the mental wellbeing of citizens should be an important enough reason to get to the bottom of this. The EU already acknowledges this by focusing policy goals on work-life balance (Eurofound, 2019), a possible factor of stress. That said, it is a priority to find out whether this or other factors are related to stress among Millennials. Not only to prevent stress from developing into burnouts, but also to create a healthier and happier work atmosphere for everyone.

In the subsequent section, a literature study presents the potential reasons behind this problematic increase in prolonged stress, with a focus on the Millennials, people born within 1980-2000 (Stein, 2013). It is important to look at Millennials, not only because of the increasing amounts of stress among them, but in addition the fact that in Millennials, 18-38-year olds are already the largest generation in the job market (Fry, 2018). Finding stress factors might provide solutions and relief the burden on the Millennials, whilst creating a healthier working life style at the same time. Even though many researches have been done on factors leading to stress, as well as Millennials' characteristics compared to other generation, research among Millennials and work stress specifically is lacking. Research on Millennials is often focused on students or a specific job field; hence the big picture is missing. Therefore, a relation between stress, work-life balance and career prospect among Millennials has typically only been suggested, which is why testing this theory will be an important focus of this study. Because of the changing society and all the flexible contract that brought recently (Guardian, 2018), testing the relation between stress and fixed work conditions seems an important contribution to the research field of work stress. Additionally, ideal working hours have not been researched before, even though it is evidently a part of work-life balance (Eurofound, 2019). Testing all previously named factors among 35 European countries, including all job fields, will add knowledge to the field and therefore start to fill some of the gaps in Millennial work stress research.

Theoretical Framework

Definition stress

According to Michie (2002), the definition of stress is: the interaction of pressure between an individual and a situation. When a person experiences prolonged stress it can result in a burnout, which is defined as: "exhaustion of physical or emotional strength" (*Marriam-Webster*, 2019). Dewe, O'Driscoll and Cooper (2012) state there is a relation between work, stress and wellbeing. Since Millennials are a big proportion of the employees nowadays, stress related to work will be used as a dependent in this study. The definition of stress that is used, includes an interaction between an individual and a situation, thus the literature review is focused on individual and situational factors in the lives of Millennials that could possibly lead to stress.

Individual factors of work-stress among Millennials

A lot of research has been done on character and work traits of Millennials. Borges et al. (2006), looked at personality trait differences and concluded that Millennials scored

higher on perfectionism and rule-consciousness, while Generation X, 1961-1980, scored higher on self-reliance (Borges et al., 2006). At work Millennials turn out to be in the possession of positive social habits, such as a high desire for team work, achievement, modesty and good conduct (McGlynn, 2008). Borges et al. (2010), found Millennials motives to work were gaining achievement and affiliation, and not so much about gaining powers, like previous generations. Unfortunately, these motivations and desires also bring negative habits along, such as pressure to excel in school, overscheduling, being too busy and the feelings of always being monitored and having to succeed. All very much habits that lead to stress (McGlynn, 2008).

The constant focus on achievement, success and traits is part of the reason why data suggest that Millennials perceive more stress than other generation. Expectations combined with busy schedules often have a negative effect on people's stressor and coping mechanisms (McGlynn, 2008). Young people evidently have less resilience to deal with work stressors than employees older of age. Gursoy & Lu (2013), conclude that when Millennials are emotionally tired, this is of higher influence on their job satisfaction, than it is for previous generations. Millennials give lesser value to their work and more value to leisure and personal time, compared to generation Boomers, who put a stronger emphasis on their job (Gursoy & Lu, 2013). Millennials seem to desire work-life balance more than previous generations, a concept that should be investigated further.

Work-life balance

Work–life balance is defined as "a satisfactory state of equilibrium between an individual's work and private life" (*Eurofound glossary*, 2019). Prior research found the following to be influential predictors on work-life balance: amount of quality time with family members, being able to relax in personal time, state of their families, job satisfaction and amount of time spent on work at home (Karakas & Lee, 2004). Work-life balance might have a connection to stress, as long working hours and heavy workload, both fragments of work-life balance, are mentioned as a cause of stress (Michie, 2002; Lam et al. 2002). According to Armour & Blass (2005), especially for Millennials, "work-life balance is not just a buzzword anymore" (p2). Millennials are not the same as the boomer generation, who put a high priority on their career. Their highest priority is being able to spend time on their families and personal lives besides their jobs. They want flexible jobs, with the option to telecommute, as well as having the right to work less when children come into the picture. Self-fulfilment has a higher value than work (Armour & Blass, 2005). Accordingly, having less personal time as desired, thus an unsatisfactory work-life balance, might be a predictor of

stress. Millennials seem to value personal time more than previous generations and therefore have different desires for the way work and live are to be divided.

Raqitasalo & Maaniemi (2011), found Millennials do indeed feel the pressure between time for work and family (as cited in Kulalahti, 2011). Work and life are not always separated, it can spill over in each other. Research into the theory of work-life spillover confirms emotions, attitudes, skills and behaviors occurring in one's work or personal domain, will stream into the other domain as well (Balmforth & Gardner, 2006, as cited in Bell, Rajandran & Theiler, 2012). These spillovers can cause an unsatisfactory work-life balance, as many Millennials are required to stay online, reachable and available for work always (Rhoads, 2015). Though Millennials desire a work-life balance, they might not be able to have it, thus causing pressure between an individual and a situation.

According to Hershatter and Epstein (2010) this high value Millennials put on work-life balance originates from a societal shift focusing on family, as well as their own personal experiences. Millennials experienced first-hand the pressure and sacrifices of work among their parents. As children Millennials spent many days in childcare, so their parents could be present at their not so flexible jobs. Millennials want it differently for themselves and are less willing to sacrifice personal time for their jobs. Variability in hours was found to be a big influence on family and social commitments (Costa, Sartori, Akerstedt, 2006), thus a possible influence on work-life balance. Research conducted by American Business collaboration & Families and Work Institute (2002) shows Millennials are more likely to call themselves family-centric than previous generations. The work-centric style of their parents is being rejected by this new generation, the ideal number of hours Millennials would want to spend on work, might be different than previous generation.

Evidence suggest that Millennials value work and live in a different way than older generations. They desire to spend more time on their personal lives and put a high value on work-life balance. However, whether an unsatisfactory work-life balance is a reason for their high numbers on stress has not been confirmed yet. For this purpose, current research tested whether the individual factor, work-life balance can be considered as a predictor for stress among Millennials.

Situational factors of stress among Millennials

Since there is quite a diversity in personality, background and learning style within a generation (Dilullo et al., 2011), situational factors should be examined for their influence as well. Millennials are in a different stage of their career than other generations; many of them just started to enter the job market or have been there for less than ten years. Generations

have different expectations of how the workplace will be and what work conditions they prefer (Hess and Jepsen, 2009). Societal and economic changes had an influence on the life of Millennials and the way they perceive and see things. Howe and Strauss (2000) stated Millennials face a harsher set of standards in their academic career, than their previous generation.

Besides this there are situational factors and conditions at a job itself that influence the work life of Millennials as well. Michie (2002) and Lam et al. (2010) found a variety of individual and situational factors identified to be facilitating work-stress: work deadlines, personal issues, commute time, time sensitive tasks, family demands, job uncertainty, complex tasks, not enough breaks and no variety in the work (Michie, 2002; Lam et al, 2010). Other situational factors included: issues at work, clinical difficulties, looking for a job, ethical disputes, performance reviews and having to adapt to job rotations (Lam et al., 2010). Notably, many of these factors have to do with the set work conditions at an organisation. Thereby, in both researches the uncertainty of keeping or finding a job, future prospect, play a significant part. It would be interesting to see how career prospect and work conditions are valued among Millennials.

career prospect

Career prospect can be defined as "the probability or chance for future success in a profession" (*Collins Dictionary*, 2019). Michie (2002) found work stress specifically is caused by lack of promotion, training possibilities and job certainty. Armour & Blass (2005), conducted research into Millennial's work characteristics and found Millennials have high expectations of themselves and give high importance to improving skills; following trainings while on the job. Furthermore, they feel a high responsibility from the start, are goal-oriented and want to be impactful. All these factors could play a part in someone's career prospect. Bell et al. (2012) add that when Millennials have difficulty to professionally develop themselves in their job, this can cause stress. For Millennials, not the organization itself, but the goals, development and projects stimulate commitment and engagement to the company (Myers & Sadaghiani, 2010). This differs them from previous generations, whose commitment originated from loyalty to the company (Jacobsen, 2007). Millennials seem to believe that as long as they keep developing themselves they are likely to have future success, thus have a good career prospect. Ways to improve one's career prove to be an important part of career prospect for Millennials, indicating a lack thereof might be a stress factor.

Ferri-Reed (2013) blames the big decrease of the economy for the high amounts of stress among Millennials in the United States. Most Millennials entered the job market, just as the economic crisis hit, which meant many careers were stalled before they even really started. Millennials had less career prospect than the previous generations and higher unemployment numbers. Therefore, Millennials are the generation with the highest number in work-related stress (Ferri-Reed, 2013). This bad career prospect and the uncertainty that comes with it proves to be a possible cause of work-related stress. Whether uncertainty of finding work, plays a role in stress, is yet to be confirmed. Career prospect should be tested as a possible stress predictor among Millennials.

Work conditions

While societal and economic changes took place, the workplace and work conditions changed along with it. Working conditions can be defined as "Conditions in and under which work is performed as regards to the work environment and the time, place and organization of work. (*Eurofound glossary*, 2019)." Everything from employment contracts, salary, work atmosphere and collective agreements fall under this concept. Recently fixed contracts are declining among younger employees, bringing more uncertainty to the job market (the Guardian, 2018). Putnam (2000) dubbed individualism to have changed work conditions to be more flexible, since freedom and individual treatment are important values of individualism. Kultalahti (2011) adds to this that Millennials are not into committing for a long time and are always looking for new experiences. Perhaps, fixed contracts might not be the ideal work conditions for Millennials. Costa, et al. (2006), found that flexibility is one of the highest predictors in job satisfaction, which was previously found to be related to emotional tiredness (Gursoy & Lu, 2013). Thereby, flexibility in hours was correlated to the wellbeing and health of an employee (Costa, Sartori, Akerstedt, 2006), suggesting lack of flexibility in a job is a possible predictor of stress.

As stated before, uncertainty of keeping or finding a job are possible causes of stress for Millennials (Michie, 2002), interestingly this is contradicting to the desire for flexible contracts. While society became based on individual values and freedom, stress might have accompanied this, caused by the uncertainty flexible contracts bring. There seems to be a paradox between certainty and uncertainty, or fixed work conditions versus flexible ones. It is contradicting to desire freedom, but to want job certainty at the same time. Consequently, it would be worthwhile to test whether recent flexible work conditions, such as flexible hours, salary and contract actually are predictors of stress. The entry of the job market is a lot more

uncertain than previously and it is vital to look at the repercussion of this on stress levels among Millennials.

Additional work conditions

Besides the main work conditions, fixed contract, fixed salary and fixed hours, other work conditions could potentially contribute to stress as well. Jamrog (2002) states nowadays the biggest factor in Millennials deciding to leave their job is the relationship an employee has with their supervisor. Unsupportive or demanding managers are found to increase stress, while supportive managers cause the opposite; indicating positive work sphere reduces the chance for stress (Michie, 2002). Furthermore, transformational leadership, a mentor and coaching leadership, inspires and motivates Millennials more to perform well in their job, than authoritarian leadership. According to Jamrog (2002) this is caused by their different upbringing, in which they had more of a peer-to-peer relationship with their parents. They prefer their boss to be their equal, instead of a superior (Jamrog, 2002). Millennials might differ from other generations, in their preference of organization culture or manager, and a work atmosphere focused on improving skills. It would be potentially interesting to find out which of these factors contribute to stress of Millennials.

Current Research

While a lot of research was conducted on what differs Millennials from other generations (Borges et al., 2006; 2010; Dilullo et al., 2011; McGlynn, 2008), it is still unclear why the levels of stress at work are so high among Millennials. Research seems to suggest, Millennials see life and work differently and value this differently than other generations (Lowe et al., 2008; Gursoy & Lu, 2013). Even though differences in the value of work has been proven, the influence of work-life balance in correlation to stress among Millennials specifically is still missing. It will be noteworthy to find out the influence of ideal working hours on work-life balance, which is lacking in previous research. The changes to flexible work conditions' contribution to stress (Costa et al., 2006: Putnam, 2000), as well as the uncertain career prospect in in the current job market (Michie, 2002; Ferri-Ried, 2013), have mainly been suggested as predictors and need further research to be confirmed.

To find the reasons for the high stress among Millennials the following research questions was formulated: *What are factors contributing to Millennials experiencing (more) work stress?* The predictors that will be tested are *career prospect, work-life balance, difference in hours* and the work conditions: *fixed contract, fixed salary and fixed hours*. The

relationship between the predictors of Millennials' stress are depicted in the conceptual model below (figure 1)

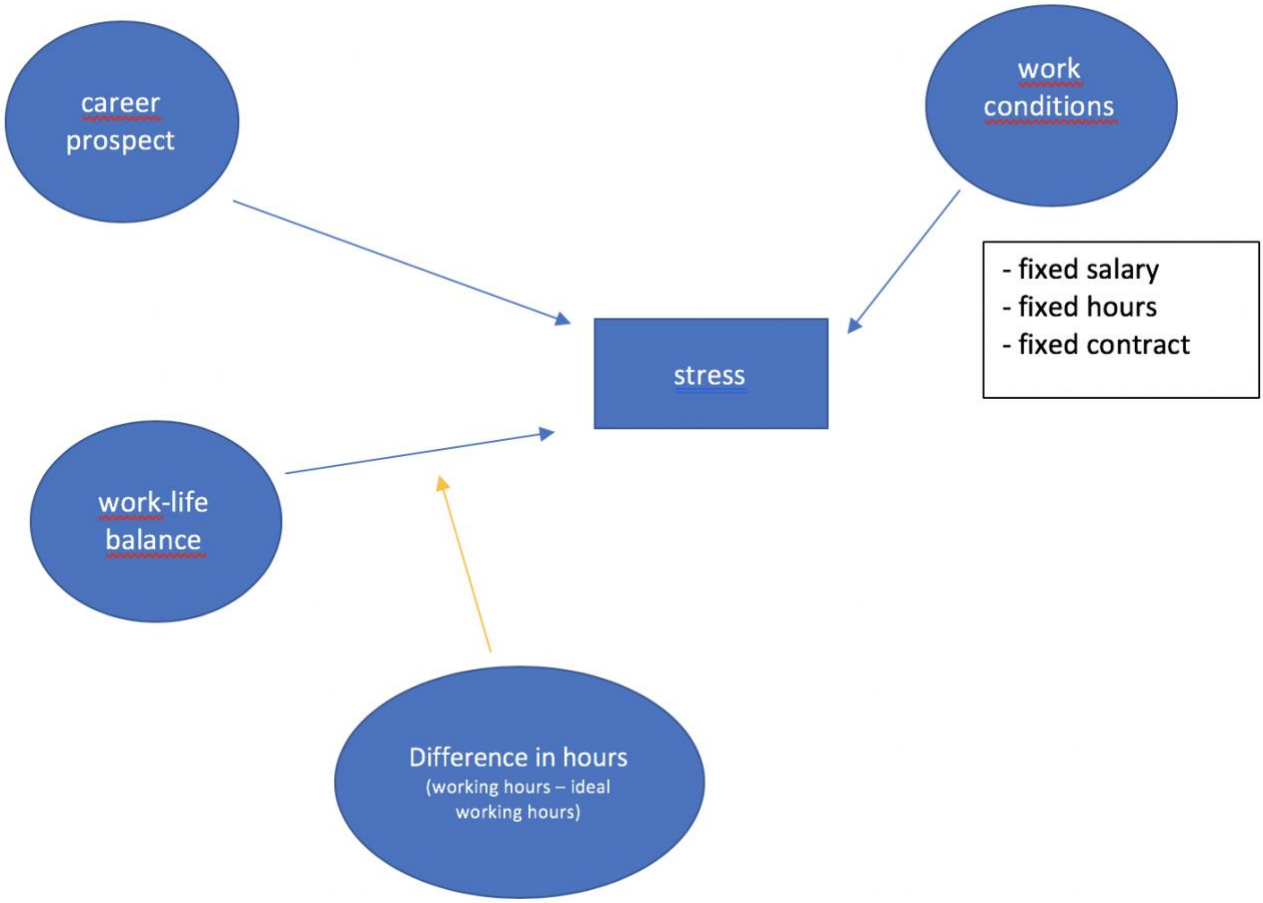

Figure 1. Predictors used in regression model. Outcome variable: stress

Since additional factors were measured in the survey, an exploratory test was added to test predictors *gender*, *support of boss and commute time*, as potential contributors to stress as well. To not only add to existing knowledge, but additionally find new factors of stress to help policy makers and employers improve the situation for young people in the workplace.

Methods

Design and Participants

To answer the research questions, an online dataset from Eurofound was used (Eurofound, 2015). The dataset is the European Work Condition Survey (2015), filled in by

43.850 respondents from the 28 EU countries, Norway, Swiss, Albania, Macedonia, Montenegro, Serbia and Turkey. The data was collected in 2015 on the basis of a cross-sectional design, thus at one point in time. The European Work Conditions Survey is collected every 5 years. The sample technique was a-select and stratified among employees of the countries. The respondents were found through registers of individuals, families and addresses, combined with the random-walk-method, in which they started at one address and randomly walked to other addresses from there on. The country samples were stratified by level of urbanization and region, to make sure all regions of the countries were included. In each random stratum of the sampling, primary sampling units were selected, considering size and proportion of the area. Finally, of each randomly drawn household, they selected the individual (in employment) whose birthday came up first.

The questionnaire was conducted face-to-face by an interviewer at the participant's home. The interviewer filled in the answers on a paper version as well as an interview protocol with information of the participant's behaviour during the interview. The participants were asked for consent, informed of the aim of the study and told the results ended up in a database. Respondents were over the age of 15 and in employment for at least an hour, in the week leading up to the interview. Every country was required to interview 1000 participants, and bigger countries were stimulated to question even 2000 respondents.

For the purpose of the current research, the sample size included only the Millennial age group of the data, aged 18-38, (N = 15902). All respondents are in employment, of which 81% works full-time, 18% part-time and 1% is on parental leave. The proportion of gender among the sample was 50,9% male and 49,1% female. The average age of the participants was 30 (M = 30.11, SD = 5.19).

Instruments

The data was conducted using a questionnaire consisting of 106 questions. Several questions entailed different statements, which the respondent had to answer with a Likert scale from 1-5, going from 'strongly agree' to 'strongly disagree'. Other questions were open, asking for the number of hours spent working, hours they wished they work and time it took to commute to work. Respondents always had the answer options: '8 = no opinion' and '9 = refusal to answer'. Furthermore, there were questions about stress, work-life balance, job tasks, work environment, supervisors, the possibilities at the job and the demographics. A link to the questionnaire can be found in the appendix 1. For the current study the variables used are *work condition, career prospect* and *work-life balance*. The dependent variable *stress* will be

measured by a question on perceived stress "do you experience stress in your work?". The other variables are operationalized below.

Predictor variables

career prospect

The variable *career prospect*, defined as the probability or chance for future success in a profession, was measured by items about training and future employment prospect. To test the scale to be valid and reliable, the answers to the following items: 2 "useful work", 3 "job offers good prospect", 4 "job security" 5 "future prospect" and 7 "finding a new job" were reversed. A Cronbach's alpha on career prospect resulted in an insufficient score of .51. Since Cronbach's alpha improved to .75 once items 3 "job offers good prospect", 6 "might lose my job in six months" and 7 "finding a new job" were deleted, they were taken out of the scale to assure validity. Finally, only Items 4 "I feel that my job is more secure because of my training" and 5 "I feel my prospect for future employment are better" were kept as measurement of career prospect. Since these were only two items left, creating a new variable out of a combined mean scores was preferred, as it is easier to interpret than a factor analysis score.

work conditions

The predictor *Work conditions*, defined in this study as the agreements and contracts around the job, was separated in three different predictors: *fixed contract, fixed salary* and *fixed hours*. This was done since the 11-item scale of work conditions resulted in a very low Chronbach's Alfa of .41. Looking at the content of the items, it was clear they related to working conditions, however clearly measured different aspects of it. After deleting all but items 7-10, Chronbach's Alfa improved to 0.80, a valid score.

The items left, were all measuring fixed times and resulted in the *fixed hours* scale, consisting of items 7-9 "do you work the same hours/days/weeks" and item 10 "fixed starting and end times". One of the deleted items, Item 1 "do you have a fixed salary?" testing the presence of a fixed salary, was used to create the second predictor: *fixed salary*. Finally, the last predictor, *fixed contract*, consisted of the question: "what kind of contract do you have?" The item's four-answer option was recoded to a yes or no question, defined by whether there was a fixed contract or not.Before the analysis, answers to items 1 and 3-10 were reversed, since it was easier to have yes as the highest score. Fixed work conditions resulted in a 1 and flexible work conditions in a 0, based on the assumption of the literature that fixed work conditions might accompany high stress. The three variables, *fixed hours, fixed contract and*

fixed hours will be used in the regression as separate predictors and provide an answer whether fixed or flexible working conditions are a predictor of stress.

work-life balance

The variable *work-life balance*, defined as a division of time between work and personal life, was measured by questions on (wished) time for several personal activities and time for work. Question such as: "How often have you found that your job prevented you from giving the time you wanted to your family" and "How often have you found that your family responsibilities prevented you from giving the time you should to your job". The question answers had a Likert scale format, 1-5, Always to Never. To create the work-life balance scale, 5 of these items were combined in a factor analysis. A Cronbach's alpha resulted in a .78 score, the scale is reliable to use for research purposes. Cronbach's alpha did not improve when items were deleted, hence all items were kept in the scale.

Moderator variable

To test, whether people's work-life balance score is moderated by their *working hours* and *ideal working hours*, a new variable was created incorporating the difference between these variables. The variables were operationalized by the questions "actual hours" and "preferred hours". The moderating factor, *difference in hours* was created by subtracting ideal working hours of ones' actual working hours. Finally, to test for moderation on work-life balance an interacting effect variable was created by multiplying *difference in working hours* with the *work-life balance* scale.

Extra predictors

Other variables that were questioned in the survey were commute time, gender of the employees' boss and support received by boss. Since there is a possibility that these factors increase stress as well, as they are time consuming or influence work atmosphere, these were tested as predictors as well. The variable *Commute time* was operationalized by the question "In total how many minutes per day do you usually spend travelling from home to work and back?". The *gender of boss*, was measured with the question: "Is your immediate boss a man or a woman?". Finally, the *support by boss* scale was created out of combining answers to Likert scale statements about the support, respect, praise, encouragement and feedback one gets from their immediate boss. The answer options, 1-5 "strongly agree" to "strongly disagree" had to be reversed. Cronbach's Alfa resulted in a score of .90, a great reliability for the scale.

Analysis and data management

The questionnaire was processed in the statistics software program SPSS. The answers were checked for missing answers and data was cleaned up. Thereby some variables were reversed and recoded. String variables, *gender, fixed contract and fixed salary* were transferred into numeric variables, to make analysis possible. Normality, residuals, and the assumptions of a regression were checked. A multiple linear regression analysis was conducted, in order to examine potential predictors influencing stress of Millennials. The relationships between the predictors and dependent were determined, with a significance level (alfa = .05). The participants used in the regression are 18-38-year old, *Millennials (n* = 4616). Additionally, a moderator relationship between work-life balance and ideal working hours was tested. The validity of the predictor scales *work-life balance, career prospect* and *fixed hours* were tested using Cronbach's alfa scores. Additional exploratory analysis was conducted to test extra variables commute time, gender, age and boss predict stress as well.

Ethics

The EWCS data is public data, free to use, as long as it is not used to gain profit. Access to the data, required a login, to protect the participants. My personal information and university were checked, before I got access. Since the EWCS questionnaire, consist mostly of general questions about work, work-environment and workhours, it likely did not cause harm. However, things could unexpectedly harm, thus to minimize this, answer possibilities: "do not want to answer" or "no opinion" were always provided. They conducted the questionnaire, in person, to inform the respondent and stop questioning if they thought it harmed the respondent. Since the data was already conducted previously, the participants cannot be done any more harm, as long as the data is used privately and with integrity. For more information on the ethical procedures of current research, the ethical assessment can be found in the appendix 3.

Results

Testing assumptions for the Regression Model

After inspection of the residual boxplots, most scales could be considered normally distributed. The *fixed hours* seemed a tad skewed, however after inspection of the histogram, (figure 2) below it showed the residuals to be normally distributed. Since the sample size is so big, the distribution of normality is not as important. The variables were tested for

multicollinearity, and none was found. All of the VIF scores were below 5. After looking at the standardized residuals, one outlier was taken out. The outlier was the only case of the sample size with an absolute value below -3, and since taking it out had no effect on the predictor model, not using it in the analysis was preferred. Mahalanobis does have a few extreme cases above the extreme value 24. The maximum cook's distance is .01, thus it is great, well under the limit set at 1. The leverage has some critical cases. However, since the Standardized DFbeta's were all between .2 and -.2, these extreme values and cases did not appear to have a problematic effect on the results. Thereby, because of the great sample size it will be unlikely that these extreme cases had a problematic influence.

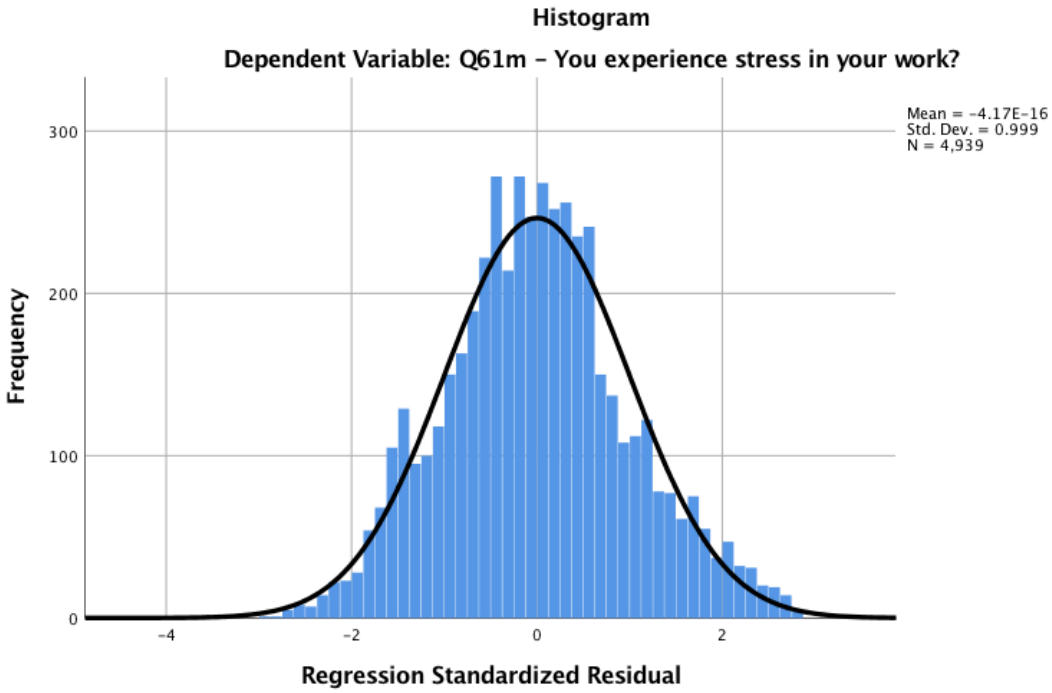

Figure 2. Normal distribution of residuals used in regression

Descriptive statistics

The dependent variable stress was normally distributed and showed 87% of the participants experienced work related stress. 17% of the respondents do experience stress most of the time and 11% even always. The descriptive statistics can be found in table 1 below.

Table 1

Descriptive Statistics

	M	SD	N
Stress	3.06	1.08	4963
Age	30.54	5.13	4963
Gender	.48	.500	4963
Work-life balance	-.01	.924	4963
Fixed hours	.01	.948	4963
Career prospect	3.84	1.06	4963
Fixed contract	.81	.39	4963
Fixed salary	.96	.19	4963
Difference in hours	-263.78	355.9	4963

Note: For gender: 0= female, 1 = male, for fixed hours, fixed contract, fixed salary, 0 = flexible, 1 = fixed

Among the people experiencing stress (87%), 43,1 % is female and 44% male. The median of stress is 3 'sometimes' and the average of stress is 3.06 (SD =1.08). For both gender stress occurs mostly *sometimes*, followed by rarely and most of the time. For all ages the most common occurrence of stress was *sometimes* as well (median = 3). The intercorrelation of the predictors can be found in Table 2 on the next page.

Table 2

Correlations Among and Descriptive Statistics For Key Study Variable

	Age	Gender	Work-life balance	Fixed hours	Career prospect	Fixed contract	Fixed salary	Diff. in hours
Age	1.000	-.007	-.141*	.017	-.120*	.221*	.094*	.017
Gender	-.007	1.000	.057*	-.065*	.024*	.005	-.018	.015
Work-life bal.	-.141*	.057*	1.000	.153*	.083*	-.032*	.007	-.132*
Fixed hours	.017	-.065*	.153*	1.000	.086*	.011	.081*	-.073*

Table 2 (continued)

	Age	Gender	Work-life balance	Fixed hours	Career prospect	Fixed contract	Fixed salary	Diff. in hours
Career prospect	-.120	.024*	.083*	.086*	1.000	-.055*	-.004	-.068*
Fixed contract	.221*	.005	-.032*	.011	-.055	1.000	.088*	-.023
Fixed salary	.094*	-.018	.007	.081*	-.004*	.088*	1.000	.005
Difference in hours	.017*	.015	-.132*	-.073*	-.068*	-.023	.005	1.000

Note: N = 4936
** p < 0.05*

Main analysis

A hierarchical multiple regression analysis was conducted to study the relationship between the predictors and the outcome variable, stress. The predictor variables include *fixed hours, fixed contract, fixed salary, career prospect, work-life balance.* The moderator variable was *difference in hours.* To control for the influence of gender and age, they were included in the model.

In Step 1, the predictor variables *fixed hours, fixed contract, fixed salary, career prospect, work-life balance, age and gender* were entered, explaining 18,4% of the variance in stress among Millennials, $R^2 = .18$, F (8, 4927) = 138.77, $p < .001$. In step 2, after the moderating interaction was added to these predictors the total variance explained by the model improved, as can be seen in the table below. The variability change was significant, R^2 change, $p = .001$. Model 2, accounted for a significant improvement to 18,6% of the variability in the occurrence of stress, R^2=.19, R^2 change =.18, F (9, 4926) = 124.84, $p < .001$. This can be considered a medium effect.

Table 3
Predictors of stress among Millennials

	Stress		
	Model 1	Model 2	
Variables	Beta	Beta	95% CI
(Constant)			[3.13, 2.65]
age	-.007	-.007	[0.00, -0.06]
Gender	-.027*	-.028*	[0.05, -0.12]
Work-life balance	-.403**	-.434**	[-0.4, -0.55]
Fixed hours	-.049**	-.049**	[-0.03, -0.06]
Career prospect	-.014	-.014	[0.0, -0.04]
Fixed contract	.050**	.049**	[0.21, 0.06]

Table 3 (continued)

	Stress		
	Model 1	Model 2	
Variables	Beta	Beta	95% CI
Fixed salary	.039**	.038**	[0.35, 0.07]
Difference in hours	.038**	.041**	[0.00, 0.00]
Diff in hours*work-life b.		-.053**	[0.00, 0.00]
R^2	.184	.186**	
F	138.77**	124.84**	
ΔR^2		.002**	
ΔF		11.15	

Note. N =4936, CI = Confidence interval.

*p <. 05 ** p < .01.

The coefficients and significance of each predictor can be found in table 3. The interaction variable, *difference in hours*, added in step 2 proved significant (*beta* = -.05, *p* = .001) and thus can be considered a moderator variable of work-life balance. In the final model all predictors were found to be significant, except for *career prospect* (*beta* = -.01, *p* =.296) and *age* (*beta* = -.01, *p* = .595).

Additional Exploratory Regression

An exploratory test was performed, entering the additional predictors *commute time, gender of boss* and *support of boss* in step 3 to test for significant increase of variability. The total variance explained by the model as a whole increased to 19,8%, *F* (12, 4604) = 94.89, *p* < .001, a significant change. The added predictors explained an additional 1% of the variance in stress, R^2 change = .00, *F* change (3, 4604) = 18.09, *p* < .001. The predictors *support of boss* (*beta* = -.09, *p* < .001), *commute time* (*beta* = -.00, *p* = .021) proved to be significant, while *gender of boss* (*beta* = -.00, *p* = .930) proved not to be significant.

Discussion

The aim of current research was to find out which factors are contributing to Millennials experiencing (more) work stress. The variables tested as predictors of stress among Millennials were: *career prospect, fixed contract, fixed hours, fixed salary, work-life balance* and *the difference in hours*. The model was controlled for age and gender. All predictors turned out to be significant, except for *career prospect* and *age*. *Difference in hours* appears to be a moderator of *work-life balance*. An additional analysis was performed

tot test predictors *commute time*, *gender of boss* and *support of boss*. All predictors improved the model and variability of stress prediction, nevertheless *gender of boss* was not significant. This suggests work conditions, work-life balance, gender, commute time and support of boss are predictors of stress.

The current results confirm previous research (Wang, Mark & Niiya, 2014, CBS, 2015), stating that many Millennials experience stress. With 87% experiencing stress, it is evident that stress occurs among many Millennials. Concerning is that 10,9% even confirmed that they were always stressed. When stress is occurring for a continuum time, it can transform in a burn-out (TNO, 2012), and cause a problematic turn. Looking at the demographics this did not suggest big differences, both genders have a similar mean score and age did not turn out to be a predictor of stress. Evidently stress occurs among all ages and genders within the Millennial generation.

The results of the multiple regression confirmed the expectations of previous research that work-life balance is a predictor of stress (Armour &Blass, 2005; Kulalahti, 2011). Work-life balance evidently seems to be a significant predictor of stress among Millennials as well, in current study even the most significant predictor. Since previous research proved that Millennials value work differently and care more about work-life balance than previous generations (Armour & Blass, 2005), it was expected that an unbalanced work-life balance was a reason why especially Millennials experienced stress. The negative correlation between work-life balance and stress in current research endorses this theory. Millennials do seem to care a lot for their personal and family time, especially since the ideal working hours are a moderator of work-life balance. Millennials seem to desire to work less and spend more time on other facets of life. Since ideal working hours is not a variable used in previous research, this discovery fills a small part of an apparent research gap. Future studies into ideal hours need to be conducted, to continue to fill this gap.

Against expectation, career prospect did not seem to be a significant predictor of stress. Interestingly this opposes Michie (2002) and Lam et al. (2010) suggestions that work stress is caused by lack of job certainty. However, it should be mentioned that the career prospect scale only consisted of two items and further research with a designed scale is advisable to retest this relation. One of the best predictors of stress appeared to be fixed contracts, which had a positive relation with stress. This suggests that Millennials under fixed contracts, experience more stress. Fixed salary had a positive significant relationship with stress as well, confirming that flexibility is wished for among Millennials. This fits well with new ideals of individualism (Putnam, 2000), to receive more freedom and individual

treatment. It seems Millennials do not like to commit or feel stuck in a job, thus confirming Kultalahti (2011)'s suspicion that Millennials are not into committing for a long time and are always looking out for new experiences. Additionally, fixed hours turned out to be a significant predictor. Interestingly, it had a negative correlation with stress. Contradicting to the other work conditions factors, flexibility in work hours actually leads to more stress. Possibly due to the fact that it is easier to plan around fixed hours, with regards to their family live. This result adds to the previously found relation between variability in hours and wellbeing, as well as its influence on social commitments (Costes et al. 2006).

The highest variance model found (19,6%), included all variables of work condition, work-life balance, moderator ideal hours, gender and additional factors support of boss and commute time. Support of boss turned out to be a great predictor, supporting Jamrog (2002)'s idea that Millennials prefer transformational leadership. It was expected many predictors would contribute since stress involves many situational and individual factors and many facets of life can play a part in the occurrence of it. Unfortunately, this makes it almost impossible to find all the factors contributing to stress. Consequently, a medium effect can be seen as a decent predictor model, in an area so hard to grasp.

Limitations

It should be noted, that the career prospect predictor was a limitation in this research, since after reliability tests it only consisted of two items. Consequently, many facets of career prospect were not measured. For future purposes it would be vital to design a career prospect scale, that also measures items on improving one's skills and having ability at a job to improve one's 'self, since this was proven to be an important part of career prospect for Millennials (Michie, 2002). Another limitation was the predictor work conditions, which consisted of very different questions, resulting in the division of the predictor in three separate factors. It is hard to decide what a good or bad work condition is, as there is no agreement on this. Consequently, in current research the distinction was not made between good or bad conditions, but between fixed or flexible conditions. However, people might prefer some conditions to be flexible and other to be fixed, which makes it a hard concept that should be paid great attention to during operationalization. Another limitation was that the dependent variable consisted of one-item, since the data set did not include a scale for stress or burnout. Adding these scales in the 2020 questionnaire would be recommended. Another possible limitation could be that the presence of the interviewer could provide socially desirability bias. Using an online survey in the future would decrease this bias. Finally, since it is cross-sectional design, it should be kept in mind that even though

conducted research found some significant predictors of stress among Millennials, causality is hard to prove. It is nearly impossible to say there were no other reasons people experienced stress. A longitudinal study would be recommended for the future.

Implications

Even though results suggest that bad work-life balance leads to more stress among Millennials, it does not confirm that this is because Millennials value personal life more. The reason why is still unknown. Future research into the reasons and important facets of work-life balance among Millennials would be rewarding. Finding factors that create a good work-life balance might help to find ways to reduce stress. Thereby, the influence of ideal working hours on work-life balance, a newly discovered relation, needs more follow up study to confirm this. Additionally, it would be worthwhile to look into the relation with and the support of the supervisor. This turned out to be a strong predictor, though more research is needed to prove this relationship. In conclusion, future research is needed in flexibility in work conditions and how to create this, as it fits well in recent individualistic times, and people seem to prefer it. With this knowledge, policy and work contracts can be improved, ultimately creating a better working environment for Millennials.

To decrease stress in the future and prevent the upcoming generation reaching high numbers in stress, the work-field should focus on stress reduction. Finding stress factors might provide solutions and relief the burden on the Millennials, whilst creating a healthier working life style at the same time. This recent focus on achievement (Howe and Strauss, 2000) and the focus on individual gain (Putnam, 2000), set the bar for young people very high. If the bar is set too high, young people are just set up to fail and all we end up with is people under greats amount of stress. Reducing pressure might even lie in a change of attitude or a redefinition of success.

Certainly, stress should be seen as a real problem, as it might prove to become one of the biggest health issues of recent times. Many diseases and sickness symptoms can be traced back to stress, quite a cost for something often unnecessary. Accordingly, it is from the upmost importance that the reasons for stress are found in order to find solutions that decrease it. Adding the stress and burn-out scales to the survey, would improve the EWCS and help to discover more about prolonged stress among Europe, especially since the survey is collected every 5 years. A longitudinal design is needed to truly find causality between predictors and stress; if the survey is conducted among the same participants over a continuum of time, the way stress evolves can be brought to light.

Conclusion

It seems many factors are involved relating to stress among Millennials. Work conditions, work-life balance and ideal working hours seem to contribute to stress among Millennials. Even though almost twenty percent can be predicted by a model including work condition, work-life balance, ideal hours, gender, support of boss and commute time, there are many factors yet to be discovered. A lot of stress is simply unnecessary and decreasing this should be a main objective in society. Especially Millennials seem to be affected, which is problematic, since they are a large part of the employees. Whether we have to redefine our idea of success, learn how to release the burden of unfulfilled expectations or focus on decreasing factors causing stress is yet to be discovered. Certainly, solutions should be looked for in future research, to not only reduce stress, but create a better and pleasant work environment as well. Future research should focus on why already known factors increase stress. Once the underlying reasons behind the stress can be established, solutions can be found before it becomes the 'millennial disease'.

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Appendix 1
https://www.eurofound.europa.eu/surveys/european-working-conditions-surveys/sixth-european-working-conditions-survey-2015

6TH EUROPEAN WORKING CONDITIONS SURVEY (2015)

QUESTIONNAIRE

Information note:

This is the source questionnaire of the 6th European Working Conditions Survey (EWCS) which took place in 2015. The questionnaire was produced in thirty-two different languages, eleven of which were used in more than one country and adapted to the cultural context when necessary. All language versions are available on Eurofound's website under the following link: http://www.eurofound.europa.eu/6th-ewcs-questionnaire-translation-language-versions

The interviewer instructions are written in CAPITAL letters. This document also contains information about whether the questions were used in previous waves of the EWCS: the year(s) is indicated above each question.

In addition to this questionnaire, a glossary is available.

The standard conditions for use of Eurofound's research, including the 5th EWCS questionnaire, are as follows:

1. The original source of the data must be acknowledged in any publication/ disseminated materials in which it appears.
2. A copy of such published / disseminated material(s) (or URL reference in the case of online usage) must be provided for Eurofound's files and sent to Sophia MacGoris (smg@eurofound.europa.eu) at the European Foundation for the Improvement of Living and Working Conditions, Wyattville Road, Loughlinstown, Co. Dublin, Ireland.

* * *

/ewcs-2015-questionnaire

Questions used for the factors

Dependent Factor (Y) = Work stress
Q61. For each of the following statements, please select the response which best describes your work situation.
M – You experience stress in your work

Work life balance

Q61. F – You can take a break when you wish

Q44. In general, how do your working hours fit in with your family or social commitments outside work?
1 - Very well 2 - Well 3 - Not very well
4 - Not at all well 8 - DK/no opinion (spontaneous) 9 - Refusal (spontaneous

Q45 How often in the last 12 months, have you…? /
A – kept worrying about work when you were not working (1-9)
B – felt too tired after work to do some of the household jobs which need to be done (1-9)
C – found that your job prevented you from giving the time you wanted to your family (1-9)
D – found it difficult to concentrate on your job because of your family responsibilities (1-9)
E – found that your family responsibilities prevented you from giving the time you should to your job (1-9)

Q46. Over the last 12 months, how often have you worked in your free time to meet work demands? [IF Q17=00: Since you started your main paid job, how often have you worked in your free time to meet work demands?]
1 – Daily
2 – Several times a week
3 – Several times a month
4 – Less often
5 – Never
7 – Not applicable
8 – DK/no opinion (spontaneous)
9 – Refusal (spontaneous)

Q47. Would you say that for you arranging to take an hour or two off during working hours to take care of personal or family matters is
1 – Very easy
2 – Fairly easy
3 – Fairly difficult
4 – Very difficult
8 – DK/no opinion (spontaneous)
9 – Refusal (spontaneous)

Working hours & Wished working hours

Q24. How many hours do you usually work per week in your main paid job?
Number of hours per week: ……
Q25. Provided that you could make a free choice regarding your working hours and taking into account the need to earn a living: how many hours per week would you prefer to work at present?
Number of hours per week: ……

Career prospect
Q64. Which of the following statements would best describe your skills in your own work?
1- I need further training to cope well with my duties
2 - My present skills correspond well with my duties
3 - I have the skills to cope with more demanding duties
8 - DK/no opinion (spontaneous)
9 – Refusal (spontaneous)

Q61. J – You have the feeling of doing
useful work

Q89
B - My job offers good prospects for career advancement 1 2 3 4 5 7 8 9
C I receive the recognition I deserve for my work (NEW) 1 2 3 4 5 7 8 9
E – The organisation I work for motivates me to give my best job performance
G - I might lose my job in the next 6 months

Work conditions
Q101 does work include?
A - Basic fixed salary/wage 1 2 8 9
B - Piece rate or productivity payments 1 2 8 9
C - Extra payments for additional hours of work/overtime 1 2 8 9 D - Extra payments compensating for bad or dangerous working conditions 1 2 8 9
E - Extra payments compensating for Sunday work 1 2 8 9
F - Payments based on your individual performance (NEW) 1 2 8 9

Q39. Do you work...?
- A- The same number of hours every day 1 2 8 9
- B- The same number of days every week 1 2 8 9
- C- The same number of hours every week
- D- Fixed starting and finishing times 1 2 8 9
- E- Shifts

<u>Extra factors</u>

Boss
Q62. Is your immediate boss a man or a woman?

B – Your manager helps and
supports you

K – You know what is expected of
you at work

Q63. To what extent do you agree or disagree with the following statements? Your immediate boss…
respects you ect.

Travel Commute
Q36. In total, how many minutes per day do you usually spend travelling from home to work and back?

Appendix 2 - Assessment of ethical aspects of proposed master thesis research

Assessment of ethical aspects of proposed master thesis research

Provide a short assessment of ethical aspects of the proposed research for your master's thesis. All students discuss this assessement of ethical aspects of the master thesis research with their master thesis supervisors.

For students who are undertaking a Research Internship and Thesis only: your supervisor will submit this assessment form to the ISS Ethics Advisory Committee (IEAC). You may not start the proposed research before the IEAC has advised positively.

1. Provide a short summary of the background and research question/s.

According to CBS (2015), the numbers of burn-out symptom occurrences have risen among 14 percent of the employees in the Netherlands and is especially high among people between ages 25-35.
Even students seem to feel high stress and pressure. According to a research conducted by Hogeschool Windsheim (2018), 1 in 4 students are experiencing burn out symptoms. Burn-out often seen as a disease for employees, is nowadays even becoming a trend among students. These numbers are concerning, especially since burnouts often go hand in hand with depressions (Ahola, Hakanen, Perhoniemi, Mutanen, 2014). Literature seems to suggest that millennials are different than their previous generations and therefore also experience work quite differently. It is interesting to find out whether the work/life balance among millennials, represents this. Do they have more part time contracts and wish to work less than other generations?

To discover more about the topic the following research question was formulated:

- What is the relationship between stress and work/life balance and does this differ between millennials and generation x?

This leads to the following sub questions:

- What are the differences in wished work/life balance, between millennials and other generations?
- Are millennials showing more symptoms of stress, than other generations?
- Do millennials prefer to work less hours, compared to other generations?
- Is there a correlation between career prospect and stress?

2. Provide a short description of the intended research population/s.

The intended research population are millennials, but to discover the differences, they will be compared to other generations, such as generation X. Millennials are people born between 1980 and 2002, in other words people from 18-38 years old. Generation X are people born between 1961 and 1980, people from 38-57 years old. The research population focuses on Europeans part of the millennial generation and generation X.

3. Provide a short description of the proposed research design and method/s.

The research conducted will have a cross-sectional design. I am making use of the existing data set "European Working Condition Survey, 2015 (EWCS)" conducted in name of Eurofound, a foundation with the mission to improve life and work circumstances. The data was conducted in 2015, at one point in time. The survey is collected every 5 years among people living in all countries of the European Union. It is public data, free to use, as long as it is not used to gain profit. The questionnaire was conducted in 35 EU countries, and filled in by 43 850 participants.

I will conduct a multivariate analysis, to compare both generation groups and their stress scores. The generation can be grouped and used for a cluster analysis. An ANOVA analysis will be used to analyse the differences between the generation.

4. Provide a short description of the recruitment strategy/ies:
   a. How will potential participants be identified?
      The participants will be selected from the data by their age, the age of the millennials (18-38) and the age group 38-57.
   b. How will potential participants be approached for participation in the research?
      I gained access to the data, with a login to get into a protected database. The participants signed of on these conditions, and I will not need to approach the participants for this.

5. Provide a short description of any risks involved in the research for participants. Also describe what measures will be taken to limit the risks for participants?

Since I have existing data, the data is already anonymous, and I will not meet the participants in any way, the biggest risk for the participants is that the data will leak. Which would breach their privacy. The main thing I have to do, is to make sure the data is stored in a safe space and only accessible by me or my supervisor. Data should be dealt with carefully and kept in its anonymity. Monthly password changes to my University account, can be helpful protection to minimize risks.

6. Provide a short description of how informed consent will be obtained:
   a. How will potential participants be informed about the aims and requirements of the research?
   b. How will consent for participation in the research be obtained and recorded?

Because the participants already gave informed consent to the researchers, and gave permission to Eurofound to store it and make it available to others, consent is already given. Participants know it can be used again, and agreed to these terms.

7. Provide a short description of how the privacy of participants will be protected and how the confidentiality of information obtained will be ensured.

The data should stay anonymous, and not be shown to others, besides my supervisor. I should not share the data and analyze and store it at the drive of the University only. This keeps it securely stored. I will change my UU login monthly. Upon completion of my master thesis, I will delete the data.

8. Provide a short description of who will have access to the data, where and how data will be stored during and after the process of data collection and when and how data will be destroyed.

The only one having access to the data, are me and my supervisor, since we both got access through the UK data base site. The data should be stored on the UU protected workplace. After my master thesis is completed and passed, all the data will be erased. All document folders will be checked, as well as download folders and temporary files. I will delete the history of my UU account will be deleted. Once I graduate my UU account and documents will disappear, thus deleted.

Appendix 3 – syntax

```
* Encoding: UTF-8.


GET
  FILE='/Users/sofieronduite/Downloads/UKDA-8098-spss/spss/spss19/ewcs6_2015_ukda_1904. kopie.sav'.
DATASET NAME DataSet2 WINDOW=FRONT.

*hernoemen Variabelen.
RENAME VARIABLES (Q61m = stress).
RENAME VARIABLES (Q2a = Gender).
RENAME VARIABLES (Q2b = age).
RENAME VARIABLES (Q61f = wlbbreak).
RENAME VARIABLES (Q44 = wlbgeneral).
RENAME VARIABLES (Q45a TO Q45e = worklifebalance1 TO worklifebalance5).
RENAME VARIABLES (Q46 TO Q47 = worklifebalance6 TO worklifebalance7).
RENAME VARIABLES (Q24 = workinghours).
RENAME VARIABLES (Q25 = wishedworkinghours).

*hernoemen variabelen career prospect.
RENAME VARIABLES (Q53f = careerprospect1).
RENAME VARIABLES (Q64 = cpgeneral).
RENAME VARIABLES (Q61j = careerprospect2).
RENAME VARIABLES (Q89b TO Q89c = careerprospect3 TO careerprospect4).
RENAME VARIABLES (Q89e = careerprospect5).
RENAME VARIABLES (Q89g = careerprospect6).


*hernoemen variabelen work condutions.
RENAME VARIABLES (Q101a TO Q101f = workcondition1 TO workcondition6).
RENAME VARIABLES (Q39a TO Q39e = workcondition7 TO workcondition11).

*hernoemen varaibelen extra.
RENAME VARIABLES (Q78h TO Q78i = burnout1 TO burnout2).
RENAME VARIABLES (Q79a TO Q79c = sleep1 TO sleep3).
RENAME VARIABLES (Q61b = supportboss).
RENAME VARIABLES (Q61k = expectationsboss).
RENAME VARIABLES (Q62 = genderboss).
RENAME VARIABLES (Q63a TO Q63f = boss1 TO boss6).
RENAME VARIABLES (Q36 = commutetime).

*varabelen workinghours - prefered working hours.
DATASET ACTIVATE DataSet1.
COMPUTE differenceinworkinghours=workinghours - wishedworkinghours.
EXECUTE.


*hernoemen verandering veriabelen.
RENAME VARIABLES (careerprospect4 TO careerprospect5 = wc1 TO wc2).
RENAME VARIABLES (Q65c = cp1).
RENAME VARIABLES (Q67b TO Q67c = careerprospect4 TO careerprospect5).
RENAME VARIABLES (Q89h = careerprospect7).
RENAME VARIABLES (Q11 = contracttype).
RENAME VARIABLES (worklifebalance6 TO worklifebalance7 = wlb1 TO wlb2).


DATASET ACTIVATE DataSet1.
*ompolen careerprospect.
RECODE careerprospect3 (1=5) (2=4) (3=3) (4=2) (5=1).
EXECUTE.

RECODE careerprospect4 careerprospect5 careerprospect2 careerprospect7 (1=5) (2=4) (3=3) (4=2)
    (5=1).
EXECUTE.


RECODE workcondition7 workcondition8 workcondition9 workcondition10 workcondition1 workcondition3
    workcondition4 workcondition5 workcondition6 (1=2) (2=1).
EXECUTE.

DATASET ACTIVATE DataSet1.
RECODE contracttype (1=2) (2=1) (3=1) (4=1) INTO fixedcontract.
VARIABLE LABELS  fixedcontract 'fixed contract or not'.
```

```
EXECUTE.

*veranderen value labels.
VALUE LABELS careerprospect3 1 'Strongly disagree' 2 'Tend to disagree' 3 'Neither agree nor disagree' 4 'Tend to agree' 5 'Strongly
agree'.
VALUE LABELS careerprospect4 1 'Strongly disagree' 2 'Tend to disagree' 3 'Neither agree nor disagree' 4 'Tend to agree' 5 'Strongly
agree'.
VALUE LABELS careerprospect5 1 'Strongly disagree' 2 'Tend to disagree' 3 'Neither agree nor disagree' 4 'Tend to agree' 5 'Strongly
agree'.
VALUE LABELS careerprospect7 1 'Strongly disagree' 2 'Tend to disagree' 3 'Neither agree nor disagree' 4 'Tend to agree' 5 'Strongly
agree'.
VALUE LABELS careerprospect2 1 'Never' 2 'Rarely' 3 'Sometimes' 4 'Most of the time' 5 'Always'.
VALUE LABELS fixedcontract 1 'No' 2 'Yes'.
VALUE LABELS workcondition7 TO workcondition10 1 'No' 2 'Yes'.
VALUE LABELS workcondition1  1 'No' 2 'Yes'.
VALUE LABELS workcondition3 TO workcondition6 1 'No' 2 'Yes'.


*scale career prospect.
RELIABILITY
  /VARIABLES=careerprospect2 careerprospect4 careerprospect5 careerprospect3 careerprospect6
    careerprospect7
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE CORR
  /SUMMARY=TOTAL.

*veranderingen dependent variabelen

RECODE stress (1=5) (2=4) (3=3) (4=2) (5=1).
EXECUTE.

VALUE LABELS stress 1 'Never' 2 'Rarely' 3 'Sometimes' 4 'Most of the time' 5 'Always'.

*hernoemen en recoding boss scale.
RECODE boss1 boss2 boss3 boss4 boss5 boss6 (1=5) (2=4) (3=3) (4=2) (5=1).
EXECUTE.
VALUE LABELS boss1 TO boss6 1 'Strongly disagree' 2 'Tend to disagree' 3 ' Neither agree nor disagree' 4 'Tend to agree' 5 'Strongly
agree'.


DATASET ACTIVATE DataSet1.
RELIABILITY
  /VARIABLES=boss1 boss2 boss3 boss4 boss5 boss6
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.


FACTOR
  /VARIABLES boss1 boss2 boss3 boss4 boss5 boss6
  /MISSING LISTWISE
  /ANALYSIS boss1 boss2 boss3 boss4 boss5 boss6
  /PRINT INITIAL CORRELATION SIG DET KMO REPR AIC EXTRACTION ROTATION
  /FORMAT BLANK(.30)
  /PLOT EIGEN ROTATION
  /CRITERIA MINEIGEN(1) ITERATE(25)
  /EXTRACTION PC
  /CRITERIA ITERATE(25) DELTA(0)
  /ROTATION OBLIMIN
  /SAVE REG(ALL)
  /METHOD=CORRELATION.

RENAME VARIABLES (FAC1_4 = supportboss_scale).
VARIABLE LABELS supportboss_scale 'support by immidiate boss'.
VALUE LABELS supportboss_scale 1 'Strongly disagree' 2 'Tend to disagree' 3 ' Neither agree nor disagree' 4 'Tend to agree' 5 'Strongly
agree'.


*hernoemen variabelen gender.
VARIABLE LABELS gender_num 'gender'.
VALUE LABELS gender_num 0 'female' 1 'male'.

RECODE Gender (1=1) (2=0) INTO gender_num.
EXECUTE.
RECODE fixedcontract (1=0) (2=1) INTO fixedcontract_num.
```

```
EXECUTE.


*hernoemen fixed contract.
VARIABLE LABELS fixedcontract_num 'fixed contract or not'.
VALUE LABELS fixedcontract_num 0 'no' 1 'yes'.


RECODE workcondition1 (1=0) (2=1) INTO workcondition1_num.
EXECUTE.

*hernoemen workcondition1.
VARIABLE LABELS workcondition1_num 'fixed salary or not'.
VALUE LABELS workcondition1_num 0 'no' 1 'yes'.

*MLR regresies

DATASET ACTIVATE DataSet1.
REGRESSION
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS CI(95) R ANOVA COLLIN TOL CHANGE ZPP
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT stress
  /METHOD=ENTER age gender_num wlbscale fixedhoursscale meanscorec4c5 fixedcontract_num
    workcondition1_num differenceinworkinghours
  /METHOD=ENTER interactionwlfwh
  /SCATTERPLOT=(*ZRESID ,*ZPRED)
  /RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID)
  /SAVE MAHAL COOK LEVER ZRESID SDBETA.


REGRESSION
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS CI(95) R ANOVA COLLIN TOL CHANGE ZPP
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT stress
  /METHOD=ENTER age gender_num wlbscale fixedhoursscale meanscorec4c5 fixedcontract_num
    workcondition1_num differenceinworkinghours interactionwlfwh
  /METHOD=ENTER supportboss_scale genderboss commutetime
  /SCATTERPLOT=(*ZRESID ,*ZPRED)
  /RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID)
  /SAVE MAHAL COOK LEVER ZRESID SDBETA.

REGRESSION
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS CI(95) R ANOVA COLLIN TOL CHANGE ZPP
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT stress
  /METHOD=ENTER age gender_num wlbscale fixedhoursscale meanscorec4c5 fixedcontract_num
    workcondition1_num differenceinworkinghours
  /METHOD=ENTER interactionwlfwh
  /METHOD=ENTER supportboss_scale commutetime genderboss
  /SCATTERPLOT=(*ZRESID ,*ZPRED)
  /RESIDUALS HISTOGRAM(ZRESID) NORMPROB(ZRESID)
  /SAVE MAHAL COOK LEVER ZRESID SDBETA.

*descriptives.

DESCRIPTIVES VARIABLES=fixedcontract_num workcondition1_num fixedhoursscale meanscorec4c5 wlbscale
    differenceinworkinghours
  /STATISTICS=MEAN STDDEV.

DATASET ACTIVATE DataSet1.
FREQUENCIES VARIABLES=age Gender
  /STATISTICS=MINIMUM MAXIMUM MEAN MEDIAN MODE
  /ORDER=ANALYSIS.


DESCRIPTIVES VARIABLES=age
```

```
/STATISTICS=MEAN STDDEV MIN MAX.
```