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Masterthesis

Millennials' Overheated Pressure Cooker: Fact or Fiction?

*Evaluating the Role of Performance Pressure,
Need for Achievement and Sense of Entitlement in Explaining Stress*

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Abstract

Stress has become an important predictor in long-term sickness absence from work, especially among Millennials (born between 1982-1999). This generation possesses specific traits that might lead to more stress, including feeling pressured to perform, having a high need for achievement and feeling self-entitled. This study investigates the relations between the before-mentioned concepts to find possible explanations for stress among Millennials. Data were collected using an online survey ($N = 202$) and were analyzed with regression analyses and a MANOVA. Results showed that extrinsic social performance pressure is positively associated with stress. No significant relations between stress and the other concepts were found. Millennials as generation did not differ from the other age groups on the concepts. Results imply that more awareness of the existence and influence of performance pressure should be raised and that anti-stress initiatives should not only focus on Millennials.

Key words: stress, performance pressure, need for achievement, sense of entitlement, Millennials, Millennial generation.

Samenvatting

Langdurig ziekteverzuim wordt steeds vaker veroorzaakt door psychische problemen, met name bij Millennials (geboren tussen 1982-1999). Deze generatie bezit specifieke karaktereigenschappen die kunnen leiden tot stress. Over het algemeen voelen Millennials prestatiedruk, zijn ze gericht op het behalen van goede resultaten en hebben ze het gevoel dat ze beloning verdienen, ongeacht hun inzet. In het huidige onderzoek zijn de relaties tussen voorgenoemde concepten als mogelijke verklaringen voor stress onder Millennials onderzocht. Een online vragenlijst ($N = 202$) is gebruikt om data te verzamelen. Deze zijn geanalyseerd met behulp van multiple regressie analyses en een MANOVA. De resultaten toonden aan dat extrinsieke sociale prestatiedruk positief gerelateerd is aan stress. Er zijn geen significante relaties gevonden tussen stress en de andere concepten. Millennials als generatie verschilden niet van mensen uit oudere generaties op de verschillende concepten. De resultaten van dit onderzoek onderstrepen de noodzaak om meer bewustzijn te creëren over het bestaan en de invloed van prestatiedruk. Ook laat dit onderzoek zien dat anti-stress initiatieven op een bredere doelgroep dan enkel Millennials gericht zouden moeten worden.

Kernwoorden: stress, prestatiedruk, prestatiemotivatie, Millennials, Millennial generatie.

1. Introduction

Recent research by ArboNed (2015) revealed that stress has become an important predictor in long-term sickness absence from work. Stress can be defined as a state in which an employee is or feels unable to meet the demands posed on him or her by the work environment (Gaillard, 2003) and is considered to be a significant predictor of burnout (Maslach, Schaufeli, & Leiter, 2001). The research by ArboNed (2015) showed that the percentage of long-term sickness absence caused by stress-related issues in the Netherlands increased from 29% in 2013 to 33% in 2014. Moreover, an interesting shift can be noted: whereas stress was most prevalent in the age group 35-44 in the beginning of the 2000s, 25-34 year olds are currently most stressed. Most of their sickness absences could be attributed to stress: almost 50% of their long-term sickness absences were stress-related in 2014. Stress was also the most important reason to be absent among employees younger than 25 in 2014 (ArboNed, 2015). These employees are all part of the Millennial generation (also called: Generation Y, Generation Me or Millennials), consisting of people born between 1982 and 1999 (Atkinson, 2004; Howe & Strauss, 2000). All in all, it seems that this generation is currently the most stressed one (American Psychological Association, 2012).

Why has stress become so prevalent among Millennials? What is typical about this group of relatively young employees, who have only recently entered the labor market and have many years of working ahead of them, that might explain their increased levels of stress? Research on the Millennial generation revealed that they are highly ambitious, achievement-oriented and self-entitled. The latter indicates a feeling of being entitled to good outcomes, regardless of the effort put in (DeBard, 2004; Harvey & Martinko, 2009; Moore, 2005; Twenge, Campbell, & Gentile, 2012). Moreover, Millennials are often characterized as having an overly positive self-image, especially when compared to older generations (Snow, Kern, & Curlette, 2001; Twenge et al., 2012) and they also appear to be more individualistic than their parents' generation (Twenge & Campbell, 2008). Millennials score higher than same-aged people from older generations on positive traits such as self-esteem, agency, assertiveness, as well as on negative traits such as narcissism and self-centeredness (Deal, Altman, & Rogelberg, 2010; Holt, Marques, & Way, 2012; Stewart & Bernhardt, 2010; Twenge et al., 2012). In general, the literature hints at a "generational trend" towards over-estimated self-views, individualism and a focus on achievement among Millennials.

Explanations for these traits and this trend are likely to be found in the upbringing of Millennials' and the larger sociocultural environment they grew up in. That is, forces impacting the drives and traits that characterize people are supposedly strongest during

childhood and early adolescence (Coomes & DeBard, 2004; Strauss & Howe, 1991; Twenge, Campbell, Hoffman, & Lance, 2010). First, it is important to note that Millennials grew up in a time that was characterized by economic welfare, limited acts of war or social distress and a cultural tendency towards positive self-views and individualism (Twenge et al., 2012). This allowed for a protected environment and enabled Millennials to focus on themselves and their own development (Holt et al., 2012; Moore, 2005).

Second, family structures and conditions also facilitated the development of a focus on the self. In comparison with families in earlier generations, families of Millennials consisted of fewer children. Millennials therefore received relatively more attention from their parents than children in earlier generations did (Bland, Melton, Welle, & Bigham, 2012; Holt et al., 2012). There was also relatively more money available for the upbringing of Millennials than in generations before. Money could be divided over fewer children, and incomes of parents were relatively higher than before: they were on average better educated and had their children at a later age than parents of previous generations did (Bland et al., 2012; Howe & Strauss, 2000).

Third, the parenting style of Millennials' parents might also have led to a greater focus on the self (Twenge & Campbell, 2001). Their approach typically included a focus on the development and protection of the self-image and can be characterized as active, involved and giving a lot of attention and praise to their children (Bland et al., 2012; Howe & Strauss, 2000; Laird, Harvey, & Lancaster, 2015). Generally, Millennials were always told by their parents that they are special, that 'the sky is the limit' for them (DeBard, 2004) and they grew up with "unprecedented levels of positive reinforcement" (Thompson & Gregory, 2012, p. 214). In addition to this, there has been an increase of school programs designed to increase children's self-esteem (Haney & Durlak, 1998). These three developments might have encouraged Millennials to adopt a greater focus on the self, an overestimated self-image and, in turn, an unrealistic expectation of their future success.

Prior research on Millennials has focused mostly on work-related topics, such as work expectations, work values and work behavior (e.g.: Deal et al., 2010; Krahn & Galambos, 2014; Ng, Schweitzer, & Lyons, 2010; Solnet, Kralj, & Kandampully, 2012). Work characteristics are also the main focus in research on stress and burnout (Schaufeli & Buunk, 2003). However, there are few studies that investigated intra-psychological processes corresponding to the above-mentioned, Millennial-specific traits. Yet, these processes might explain why Millennials experience more stress than older people. Investigating this would be worthwhile, as scientific insights regarding this topic could be crucial for developing

interventions to prevent stress. This could, in turn, counteract the trend of peaking sickness absence among Millennials reported by ArboNed (2015).

The present study will focus on performance pressure, need for achievement and sense of entitlement as possible explanations of stress. These concepts are mentioned frequently in anecdotal evidence and popular literature (“Millennials in the Workplace,” 2015; Urban, 2013; Visser, 2014). However, virtually no scientific research has explicitly investigated the differences between age groups on these concepts (Salmela-Aro, Tolvanen, & Nurmi, 2009).

1.1. Performance pressure and stress

Many popular media suggest that Millennials experience stress, because they feel pressured to perform. For example, a study conducted by a Dutch television program found that 78% of high school and university students felt a pressure to perform. The study also found that this was associated with the experience of stress (1V Jongerenpanel, 2014). Several researchers also mention performance pressure as a Millennial-trait (DeBard, 2004; Howe & Strauss, 2000; Moore, 2005). Moreover, stress experienced by Millennials is sometimes even argued to be a direct result of felt pressure to perform (Robbins, 2006; Twenge, 2006).

This trait of feeling pressured to perform is likely to be triggered by the before-mentioned conditions in which Millennials grew up. That is, Millennials might feel a pressure to perform because they were being pushed to perform by their parents: their upbringing emphasized performance and fostered a focus on the self and individual achievements (DeBard, 2004; Twenge, 2014). Further, the education system of the last couple of years continuously promoted ‘excellence’ as status quo (Visser, 2014). These conditions might trigger feelings of *externally* regulated performance pressure: Millennials might feel they *have* to perform to gain respect from others (e.g. parents, teachers, friends) or to avoid their criticism (Deci & Ryan, 2000; Gagne et al., 2010, 2012). Research also shows that Millennials set a high standard for themselves, view themselves as overly competent and have an overestimated self-view (Twenge et al., 2012). This could result in an *internally* regulated performance pressure. In this case, people feel pressure to perform to feel good about themselves (Deci & Ryan, 2000). It is expected that:

***H₁**: Performance pressure (intrinsic as well as extrinsic) will be positively associated with stress.*

1.2. Need for achievement and stress

Need for achievement could be another plausible explanation for stress. This refers to a desire to excel in accomplishments and an intrinsic drive to master difficult tasks and perform well (Hermans, 1970; Hustinx, Kuyper, van der Werf, & Dijkstra, 2009; McClelland, 1985). Millennials possess a high need for achievement and are generally motivated by challenges and a drive to achieve (Holt et al., 2012; Twenge et al., 2012). This is likely the case, because schools emphasized performance and parents provided children with endless possibilities and resources to perform (Holt et al., 2012; Visser, 2014). Examples of the latter include being able to learn any new hobby they desired (Holt et al., 2012) or parents hiring tutors to assist with schoolwork (Dang & Rogers, 2008). It is likely that Millennials are motivated to achieve, because this was all available to them. In the past, need for achievement has been linked to stress in various contexts (Hsu, Chen, Yu, & Lou, 2010; Jepson & Forrest, 2006; Moneta, 2011; Ward & Eisler, 1987). It is hypothesized that:

H₂: Need for achievement will be positively associated with stress.

1.3. Sense of entitlement and stress

A third concept relevant in explaining stress is sense of entitlement. This refers to “a relatively stable belief that one should receive desirable treatment with little consideration of actual deservingness” (Harvey & Martinko, 2009, p. 459). Millennials are often credited with having an unreasonable sense of entitlement by popular media (Deal et al., 2010). Research also shows they have unrealistic expectations of themselves and their work (Ng et al., 2010). The latter is often the case for individuals with strong entitlement-driven self-views, possibly due to the mismatch between their capabilities and what they feel they deserve (Harvey & Harris, 2010). This sense of entitlement is likely to be triggered by parents and the educational system, both providing Millennials with a lot of positive reinforcement and praise (DeBard, 2004; Haney & Durlak, 1998; Thompson & Gregory, 2012). Research by Harvey and colleagues (2010; 2009) shows that employees scoring high on psychological entitlement are less satisfied with their jobs and more frustrated compared to employees with more objective views of themselves. This could, in turn, lead to high levels of stress, especially when these unrealistically high expectations are not met. It can be expected that:

H₃: Sense of entitlement will be positively associated with stress.

1.4. Performance pressure, need for achievement and sense of entitlement

In addition to the three separate direct relationships between stress and performance pressure, need for achievement and sense of entitlement, it is also possible that some of the relationships are indirect. That is, Millennials' sense of entitlement could also be seen as an 'extreme ambition' that stems from the pressure they feel and from their achievement orientation (Hershatter & Epstein, 2010; Thompson & Gregory, 2012, p. 241). A study among a large group of college students has indeed found that self-entitled students perceived their parents as exhibiting more pressure to perform (Greenberger, Lessard, Chen, & Farruggia, 2008). It could be that Millennials feel entitled to good outcomes, because they feel so much performance pressure and have such a strong need for achievement. The concept of wishful thinking (also: the desirability bias) could explain this notion: this cognitive heuristic postulates that people employ biased reasoning to circumvent conflicts between their desires and beliefs (Bastardi, Uhlmann, & Ross, 2011). As such, people overestimate the likelihood of an outcome to match their desire for that outcome. In this case, Millennials overestimate the likelihood of them performing well, because of their strong desire to perform. This results in a sense of entitlement. It can be hypothesized that:

H₄: Performance pressure will be positively associated with sense of entitlement.

H₅: The relationship between performance pressure and stress will be partially mediated by sense of entitlement.

H₆: Need for achievement will be positively associated with sense of entitlement.

H₇: The relationship between need for achievement and stress will be partially mediated by sense of entitlement.

1.5. Millennials versus older employees

Lastly, Millennials are likely to score higher on the above-mentioned concepts than older people will. As mentioned, Millennials grew up in a different environment than older people did. This leads to them being achievement-oriented, feeling entitled and feeling pressured. Some research has already been done that suggests that Millennials score higher on these concepts than older people do. Various scholars have argued that Millennials are more stressed than older generations (DeBard, 2004; Twenge, 2006). Bland and colleagues (2012) explain that Millennials have inadequate mechanisms to cope with stress. Studies have also shown that Millennials maintain a higher sense of entitlement than other generations do, and that this strong sense of entitlement stems from their upbringing and self-centeredness (Laird

et al., 2015; Ng et al., 2010; Thompson & Gregory, 2012; Twenge, 2006). Moreover, Howe and Strauss (2000) have postulated that Millennials feel more pressure than their parents did at the same age. Finally, a study has also found that Millennials have a higher drive to achieve than previous generations do (Twenge et al., 2012). In sum, it can be hypothesized that:

H₈: Millennials (i.e. age groups 15-24 and 25-34 years) will experience more stress, performance pressure, need for achievement and sense of entitlement than people from older generations (i.e. age groups 35-44, 45-54 and 55-64 years).

The research model is displayed in Figure 1.

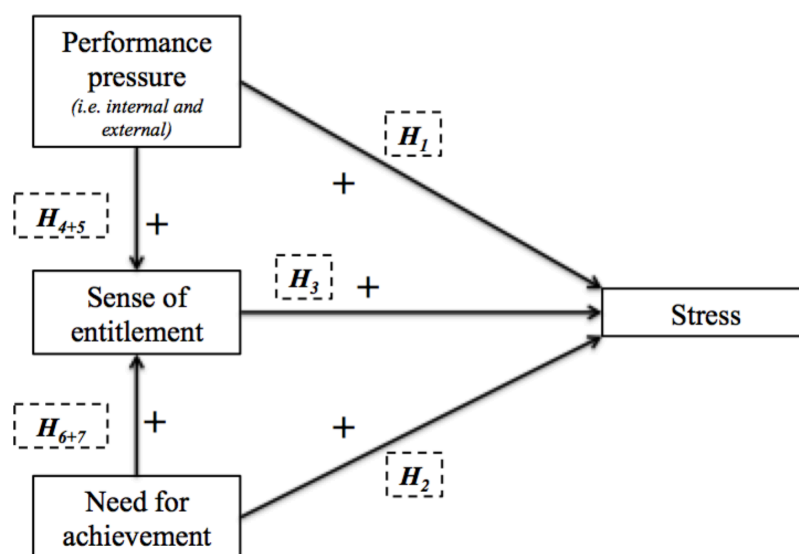


Figure 1: Schematic overview of variables and relationships, including Hypotheses 1-7.

2. Methods

2.1. Respondents and procedure

Respondents were recruited via social media (Facebook / LinkedIn), in person on the street and using personal and professional networks. In total, 335 respondents filled out an online questionnaire. 112 respondents were excluded because they did not complete the questionnaire entirely and 21 respondents were excluded because they reported to work less than 16 or more than 80 hours per week.

Altogether, this study included 202 Dutch(-speaking) respondents that completed the questionnaire voluntarily (43.6% male; $M_{age} = 38.05$ years; $SD_{age} = 12.78$). Most of the respondents were highly educated: 75.3% of the respondents had completed higher education at least at HBO-level ($SD = 1.08$). Participants were divided over the following age groups: 15-24 years (18.3%), 25-34 years (29.7%), 35-44 years (16.3%), 45-54 years (17.8%) and 55-64 years (17.8%). As such, 48.0% of participants were part of the Millennial generation (aged 15-34); the other 52.0% was older (aged 35-64). Respondents reported to work on average 32.40 hours per week according to their contract ($SD = 9.67$), and on average 38.41 hours per week in practice ($SD = 11.81$). The average number of hours worked per week in practice ranged from 16 to 80 hours per week. 89.6% of the participants work for an employer rather than being self-employed.

2.2. Measurements

Performance pressure was measured using an adapted version of the Revised Motivation at Work Scale (R-MWAS; Gagne et al., 2010; Gagne, Forest, Vansteenkiste, Crevier-Braud, & Van den Broeck, 2012). This scale measures motivation and consists of statements that start with “I work...”. For this study, the scale was adapted so that statements started with “I experience a pressure to perform at work...”. 7 items divided over two subscales were used: *Introjected Regulation* (4 items; e.g. ‘I experience a pressure to perform at work, because I have to prove to myself that I can’; $\alpha = .80$) and *Extrinsic Social Regulation* (3 items; e.g. ‘I experience a pressure to perform at work to get others’ approval’; $\alpha = .73$). Statements were rated on a 7-point Likert scale, ranging from *strongly disagree* to *strongly agree*. Principal axis factor analysis (PAF) revealed that the 7 items used loaded on two separate factors, corresponding to the two scales.

Need for achievement was measured using 12 statements, inspired by the Prestatie Motivatie Test (PMT), developed by Hermans (1970, 1976). Hermans’ PMT consists of ten

subscales that together account for need for achievement. Taking into account the definition of need for achievement presented before, the following three subscales were used: *Recognition Behavior* (3 items; including 'I find it important to get recognition from others'; $\alpha = .79$), *Aspiration level* (3 items; including 'At work, the standards I set for myself are high'; $\alpha = .60$) and *Achievement Behavior* (6 items; including 'Working is something I like very much'; $\alpha = .66$). Exact definitions of the subscales can be found in Appendix 1. Items regarding the past and items not directly related to the work context were omitted and several items were added. Additionally, items were rewritten to read as statements rather than sentences one has to finish. Response categories varied on a 5-point Likert scale, ranging from *strongly disagree* to *strongly agree*.

Sense of entitlement was measured using the Psychological Entitlement Scale (PES; Campbell, Bonacci, Shelton, Exline, & Bushman, 2004). Eight items of this 9-item scale were used. One item was omitted, because PAF analysis showed that this item loaded on a different factor than the other items did. The 8 items that were used (including 'Great things should come to me.'; $\alpha = .84$) were rated on a 7-point Likert scale ranging from *strongly disagree* to *strongly agree*.

Stress was measured using the Dutch version of the subscale 'general distress' of the Four-Dimensional Symptom Questionnaire (4DSQ; Terluin, Rhenen, Schaufeli, & De Haan, 2004). This scale consists of 16 items (including 'Did you feel tense the past week?'; $\alpha = .95$). The items were scored on a 5-point Likert scale using *no*, *sometimes*, *regularly*, *often* and *very often or constantly* as response categories.

Two scales (R-MWAS and PES) were translated from English to Dutch using backward-forward translation. A detailed report on the reliability and factor analysis that was conducted can be found in Appendix 2.

2.3. Statistical Analyses

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) for Macintosh, version 23. To test hypotheses 1-7, Baron and Kenny's (1986) four-step procedure for mediation analysis was used. Although the hypotheses could also be tested looking at Pearson correlations, this four-step method is more refined. By performing multivariate analyses it is possible to control for relationships between the variables and to look at unique variation added by a specific variable (Field, 2009).

Hypotheses 1 and 2 were tested in the first hierarchical multiple regression analysis (step one). Stress was the dependent variable, age and gender the control variables and performance pressure and need for achievement the independent variables. These control variables were included because studies show they have an effect on stress (American Psychological Association, 2010, 2012). In the second regression analysis (step two), sense of entitlement was the dependent variable, age and gender were again included as control variables, and performance pressure and need for achievement were the independent variables. Hypotheses 4 and 6 were tested with this analysis. In the third regression analysis (step three), stress was the dependent variable. Age, gender, performance pressure and need for achievement were the control variables and sense of entitlement the independent variable. As such, Hypothesis 3 could be tested. In the fourth step, Hypothesis 5 and 7 were tested. The hypothesized mediation effect were tested by examining whether the relationship between performance pressure and need for achievement on the one hand and stress on the other hand decreased (indicating partial mediation of the relationship by sense of entitlement) or disappeared (indicating full mediation) when comparing the results of step 3 and step 1 (Baron & Kenny, 1986).

Lastly, a one-way multivariate analysis of variance (MANOVA) was performed to investigate differences between Millennials and members of older generations. Stress, performance pressure, need for achievement and sense of entitlement were included as dependent variables and the different age groups were used as factor. The benefit of this analysis is that it controls for the effect of other dependent variables (Field, 2009).

3. Results

3.1. Descriptive Statistics

Mean scores, standard deviations, reliabilities of the scales used (Cronbach's alpha), and correlations between the variables can be found in Table 1. Internal consistency alphas vary between .60 and .95, which can be considered acceptable to excellent reliability (Tavakol & Dennick, 2011). Principal axis factor analysis revealed that the subscales of performance pressure loaded on different factors and that the subscales of need for achievement did so as well. Moreover, the correlations between subscales of need for achievement were not high. This indicates that the subscales measure different aspects (Field, 2009). It was therefore decided to test the hypotheses using separate subscales rather than using one composite scale.

Table 1. Mean scores (*M*), standard deviations (*SD*), reliability (α , in *Italics*), and correlations between variables (*N* = 202)

Variables	<i>M</i>	<i>SD</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>
1 Stress	1.69	.74	<i>.95</i>						
2 Intrinsic performance pressure	4.89	1.21	.37**	<i>.80</i>					
3 Extrinsic social performance pressure	4.12	1.30	.41**	.63**	<i>.73</i>				
4 NfA: recognition behavior	3.80	.69	.19**	.38**	.44**	<i>.79</i>			
5 NfA: aspiration level	3.85	.57	.17*	.47**	.17*	.21**	<i>.60</i>		
6 NfA: achievement behavior	3.95	.47	-.02	.17*	-.07	.16*	.50**	<i>.66</i>	
7 Sense of entitlement	3.36	1.02	.22**	.24**	.24**	.10	.18**	-.07	<i>.84</i>

** . Correlation is significant at the .01 level (2-tailed).

* . Correlation is significant at the .05 level (2-tailed).

NfA = Need for Achievement

3.2. Testing the hypotheses

Hierarchical multiple regression analysis with performance pressure and need for achievement as predictors of stress. First, Hypotheses 1 and 2 were tested, to see whether respectively performance pressure and need for achievement would be positively associated with stress (see Table 2). The model in step 1 was statistically significant $F(2, 195) = 6.07, p < .01$. Control variables age and gender explained 5.9% of the variance in stress ($R^2 = .059$). The analyses revealed that both age ($\beta = -.14$) and gender ($\beta = .19$) were significantly related to stress. Female and younger respondents reported higher levels of stress. Adding the independent variables to the model increased its explanatory power to 21.8%. Extrinsic social performance pressure was the only predictor that was significantly associated with stress. This analysis showed that people reporting a higher score on extrinsic social performance pressure, experience significantly higher levels of stress ($\beta = .29; p < .01$). As such, Hypothesis 1 is partially supported and Hypothesis 2 is not.

Table 2. Hierarchical multiple regression analysis with performance pressure and need for achievement as predictors of stress.

Variables	<i>R</i>	<i>R</i> ²	ΔR^2	<i>B</i>	<i>SE B</i>	β	<i>t</i>
<i>Step 1</i>	.24**	.06**					
Age				-.01*	.00	-.14*	-2.07*
Gender				.28**	.10	.19**	2.66**
<i>Step 2</i>	.47***	.22***	.16***				
Age				.00	.00	.03	.39
Gender				.24*	.10	.16*	2.38*
Intrinsic performance pressure				.08	.06	.14	1.45
Extrinsic social performance pressure				.16**	.05	.29**	3.17**
Recognition behavior				-.01	.08	-.01	-.18
Aspiration level				.18	.12	.14	1.46
Achievement behavior				-.17	.13	-.11	-1.36

***. Significance at the .001 level.

**. Significance at the .01 level.

*. Significant at the .05 level.

Hierarchical multiple regression analysis with performance pressure and need for achievement as predictors of sense of entitlement. Second, it was tested whether respectively performance pressure (H_4) and need for achievement (H_6) were positively associated with sense of entitlement (see Table 3). The model in step 1, including age and gender as control variables, was not significant $F(2, 197) = .63, p = .53$. In other words: age and gender were not related to sense of entitlement. The final model was statistically significant $F(5, 192) = 4.672, p < .001$ and explained 10.8% of the variance in sense of entitlement. Neither intrinsic performance pressure ($\beta = .09; p = .36$) nor extrinsic social performance pressure ($\beta = .19; p = .06$) was significantly associated with sense of entitlement. Thus, people reporting higher levels of either type of performance pressure do not report higher levels of stress. Hypothesis 4 is therefore rejected. When looking at need for achievement, the analysis showed that people with a higher score on aspiration level reported *higher* levels of sense of entitlement ($\beta = .24; p = .02$). However, people with a higher score on achievement behavior reported *lower* levels of sense of entitlement ($\beta = -.17; p = .04$). Recognition behavior was not significantly associated with sense of entitlement ($\beta = -.02; p = .81$). Hypothesis 6 is partially supported, because the relationship found between need for achievement and stress was expected, but the other two relationships were not.

Table 3. Hierarchical multiple regression analysis with performance pressure and need for achievement as predictors of sense of entitlement.

Variables	<i>R</i>	<i>R</i> ²	ΔR^2	<i>B</i>	<i>SE B</i>	β	<i>t</i>
<i>Step 1</i>	.08	.01					
Age				-.00	.01	-.05	-.74
Gender				-.13	.15	-.06	-.89
<i>Step 2</i>	.34***	.11***	.11				
Age				.01	.01	.12	1.51
Gender				-.12	.15	-.06	-.82
Intrinsic performance pressure				.08	.08	.09	.91
Extrinsic social performance pressure				.14	.08	.19	1.92
Recognition behavior				-.03	.11	-.02	-.24
Aspiration level				.42*	.18	.24*	2.42*
Achievement behavior				-.38*	.18	-.17*	-2.04*

***. Significance at the .001 level.

**. Significance at the .01 level.

*. Significant at the .05 level.

Hierarchical multiple regression analysis with sense of entitlement as predictor of stress, controlling for performance pressure and need for achievement. Third, it was tested whether sense of entitlement was positively associated with stress (H_3 ; see Table 4). The first model including control variables was significant $F(7, 190) = 7.572, p < .001, R^2 = 21.8\%$. After adding sense of entitlement in step 2, the final model was significant as well $F(8, 189) = 7.055, p < .001$. The model explained 23.0% of the variance in stress. However, adding sense of entitlement was not significantly associated with stress ($\beta = .12; p = .09$). As such, Hypothesis 3 is not supported by these results.

Table 4. Hierarchical multiple regression analysis with sense of entitlement as predictor of stress.

Variables	<i>R</i>	<i>R</i> ²	ΔR^2	<i>B</i>	<i>SE B</i>	β	<i>t</i>
<i>Step 1</i>	.47***	.22***					
Age				.00	.00	.03	.39
Gender				.24*	.10	.16*	2.38*
Intrinsic performance pressure				.08	.06	.14	1.45
Extrinsic social performance pressure				.16**	.05	.29**	3.17**
Recognition behavior				-.01	.08	-.01	-.18
Aspiration level				.18	.12	.14	1.46
Achievement behavior				-.17	.13	-.11	-1.36
<i>Step 2</i>	.48***	.23***	.01				
Age				.00	.00	.02	.21
Gender				.25*	.10	.17*	2.45*
Intrinsic performance pressure				.08	.06	.13	1.34
Extrinsic social performance pressure				.15**	.05	.27**	2.92**
Recognition behavior				-.01	.08	-.01	-.15
Aspiration level				.14	.12	.11	1.15
Achievement behavior				-.14	.13	-.09	-1.11
Sense of entitlement				.08	.05	.12	1.71

***. Significance at the .001 level.

** . Significance at the .01 level.

*. Significant at the .05 level.

Fourth, it was examined whether sense of entitlement partially mediated the relationships between performance pressure and stress (H₅) and between need for achievement and stress (H₇). For such a mediation effect, there should be a relationship between the independent variable (respectively performance pressure and need for achievement) and the dependent variable (stress), because the former is assumed to predict that latter (Baron & Kenny, 1986). The first analysis, however, revealed that none of the subscales of need for achievement were significantly associated with stress. Therefore, Hypothesis 7 could already be rejected. Furthermore, the first analysis revealed extrinsic social performance pressure to be related to stress. However, the second analysis showed that there was no significant relationship between extrinsic social performance pressure and sense of entitlement. For mediation, there should be a relationship between the mediator and the independent variable (Baron & Kenny, 1986). Therefore, Hypothesis 5 was also rejected.

MANOVA with stress, performance pressure, need for achievement and sense of entitlement as dependent variables. Last, it was tested whether younger employees score higher than older employees on stress, performance pressure, need for achievement and sense of entitlement (H_8). A one-way MANOVA (see Table 5) revealed a statistically significant difference between the age groups on the combined dependent variables: $F(28, 676) = 3.339$, $p < .001$; Wilks' $\lambda = .63$; partial $\eta^2 = .11$. A series of one-way ANOVA's on each of the seven dependent variables was conducted as follow-up tests to the MANOVA. Five out of seven ANOVA's reached statistical significance. Only recognition behavior and sense of entitlement did not differ significantly between the groups.

Table 5. Multivariate analysis of variance comparing different age groups

Dependent variables	F	Hypothesis df	Error df	Partial Eta Squared
Combined dependent variables	3.34***	28	676	.11
Stress	2.81*	4	193	.06
Intrinsic performance pressure	6.07***	4	193	.11
Extrinsic social performance pressure	6.32***	4	193	.12
Recognition behavior	1.75	4	193	.04
Aspiration level	9.47***	4	193	.16
Achievement behavior	4.28**	4	193	.08
Sense of entitlement	.72	4	193	.02

***. Significance at the .001 level.

**. Significance at the .01 level.

*. Significant at the .05 level.

A series of post-hoc analyses (Bonferroni) was conducted to examine the differences across the five age groups and the five dependent variables (see Table 6 for significant differences between groups and Appendix 3 for mean scores and standard deviations per age group). Only the age groups 15-24 and 45-54 differed significantly in their experience of stress ($p < .05$). Younger respondents reported more stress, as was hypothesized.

Both aspects of performance pressure were investigated. For intrinsic performance pressure, the age group 15-24 differed significantly from the age groups 45-54 ($p < .001$) and 55-64 ($p = .001$). Younger respondents reported more intrinsic performance pressure than respondents from the older two age groups did. Looking at extrinsic performance pressure, again the age group 15-24 was the only group that differed significantly from other groups, i.e. from age groups 35-44 ($p = .03$), 45-54 ($p < .001$) and 55-64 ($p = .002$). Younger respondents reported higher levels of extrinsic performance pressure.

No age groups differed significantly in their experience of recognition behavior. For aspiration level, however, there was a significant difference between the age group 15-24 and respectively 25-34 ($p = .004$), 35-44 ($p = .002$), 45-54 ($p = .012$) and 55-64 ($p < .001$). 15-24 years old respondents reported a higher aspiration level than the older participants. The age group 25-34 years differed significantly from the age group 55-64 ($p = .019$). 25-34 year olds reported higher aspiration levels. Looking at achievement behavior, the only statistically significant difference between age groups was between 25-34 year olds and 45-54 year olds ($p = .001$). 45-54 year olds reported higher levels of achievement behavior, contrary to what was hypothesized. Finally, no significant differences between groups were found on sense of entitlement.

Although some differences between groups were found, Millennials as a generation (comprising age groups 15-24 years and 25-34 years) did not differ significantly from respondents from older generations in their experience of the investigated concepts. Hypothesis 8 was therefore rejected.

Table 6. Significant differences between age groups

Dependent variable	Age group A	Age group B	Mean Difference (A-B)	Standard Error	Sign.
Stress	15-24 years	45-54 years	.52*	.17	.03
Intrinsic performance pressure	15-24 years	45-54 years	1.20**	.28	.00
Extrinsic social performance pressure		55-64 years	1.11**	.27	.00
	15-24 years	35-44 years	.91*	.30	.03
		45-54 years	1.34**	.30	.00
		55-64 years	1.12**	.29	.00
Aspiration level	15-24 years	25-34 years	.40**	.11	.00
		35-44 years	.47**	.13	.00
		45-54 years	.41*	.13	.01
		55-64 years	.75**	.12	.00
	25-34 years	55-64 years	.35*	.11	.02
Achievement behavior	15-24 years	25-34 years	-.75**	.12	.00
		35-44 years	-.35*	.11	.02
	25-34 years	45-54 years	-.40**	.10	.00

** . Significance at the .01 level.

* . Significant at the .05 level.

4. Discussion

4.1. Discussion of hypotheses

The aim of this study was to investigate the relations between stress and respectively performance pressure, need for achievement and sense of entitlement. This was done in an attempt to find plausible explanations for stress among Millennials. These concepts were chosen because of effects found in previous research. Moreover, they were expected to be present in Millennials due to their reported traits and the conditions they grew up in. In addition to studying the relationships between the concepts, it was also assessed whether Millennials and older people differed in their experience of the concepts.

Performance pressure and stress. First, it was investigated whether performance pressure is associated with stress. A significant relation between *extrinsic* social performance pressure and stress was found. This is in line with other papers arguing that feeling pressured to perform well in order to gain others' respect or to avoid criticism, puts a large and stressful burden on people's shoulders (Robbins, 2006; Twenge, 2006). This result also supports the argument presented in popular media that performance pressure makes people feel stressed (IV Jongerenpanel, 2014; Visser, 2014).

Contrary to expectations, *intrinsic* regulation of performance pressure was not related to stress. This relation was expected, because setting a high standard for oneself can be rather stressful. A possible explanation for the lack of this relation might be that *intrinsic* and *extrinsic* pressure explain the same variance in stress: they might be more alike than was expected. The Pearson correlation between both types of pressure was indeed strong, indicating that these variables overlap considerably. There was also a significant correlation between intrinsic pressure and stress, suggesting that the two are related. This relationship disappears when doing a regression analysis that controls for influences of other independent variables and only shows the unique variance in stress that an independent variable explains. In sum, this research shows that *extrinsic* pressure is a more important predictor of stress than *intrinsic* pressure. This finding suggests that it is more likely that Millennials feel stressed due to external sources (including praise received from and a focus laid on performance by parents and educators; see DeBard, 2004 and Twenge, 2014) than because of pressure they put on themselves.

Need for achievement and stress. It was also expected that need for achievement would be positively associated with stress. However, the present study showed that people reporting a high need for achievement did *not* feel more stressed. This finding contradicts

results of previous studies that did find a link between the two concepts (Hsu et al., 2010; Jepson & Forrest, 2006; Moneta, 2011). A methodological explanation for the absence of a relation could be the measurement instrument chosen. It could be that this instrument (a survey inspired by the PMT) did not measure the concept as well as was expected. This seems likely, because of the low correlations found between the subscales of need for achievement. Generally, high correlations would be expected for scales measuring subsets of the same concept. Furthermore, a study by Lefkowitz and Frase (1980) found a low correlation between the original version of the PMT and a different measure of need for achievement. This suggests that various instruments measure need for achievement differently, inaccurately or insufficiently.

Another explanation might be that being achievement-motivated leads to more job satisfaction: people who focus on succeeding rather than on avoiding failure might consider their stressful job as a satisfying challenge rather than a stressful restraint. This is in line with previous research that showed that individuals *high* in need for achievement report more job satisfaction during stressful times in comparison with individuals with *low* need for achievement do (Abdel-Halim, 1981). Job satisfaction has been found to be negatively related to or even protective against job stress in various contexts (e.g., Griffin, Hogan, Lambert, Tucker-Gail, & Baker, 2009; Ramirez, Graham, Richards, Gregory, & Cull, 1996). When people are more satisfied with their work, this could act as a buffer against stress.

Sense of entitlement and stress. Third, it was examined whether sense of entitlement was related to stress. Contrary to what was hypothesized, people with higher scores on sense of entitlement did *not* report higher levels of stress. It was expected that they would, because entitlement has previously been linked to less job satisfaction and more frustration (Harvey & Harris, 2010; Harvey & Martinko, 2009; Laird et al., 2015). In a similar vein, entitlement was expected to be linked to stress. Interestingly, this study did find a significant *correlation* between sense of entitlement and stress, but no significantly relation was found in the regression analysis. The small but significant correlations between sense of entitlement and both types of performance pressure suggest that these concepts overlap to some extent and are likely to explain the same variance in stress. Therefore, it could be that the relation between sense of entitlement and stress loses significance when measured simultaneously with performance pressure (Field, 2009).

Another explanation is that gender explained a considerable part of the variance in stress in all models with stress as dependent variable. Previous research has reported women to experience more stress than men do. For instance, women feel more stressed, because the

roles they perform are often more nurturing than instrumental (Gilligan, 1982; Mirowsky & Ross, 1989). It could be that because this study controlled for the effect of gender, no significant relations between stress and the three concepts were found.

Mediation analysis: the relations between stress and respectively performance pressure and need for achievement, via sense of entitlement. Then, it was measured whether performance pressure and need for achievement were positively related to sense of entitlement. Contrary to expectations, people that feel more performance pressure did *not* report higher levels of sense of entitlement. Similarly, people reporting more recognition behavior did also *not* report higher levels of sense of entitlement. However, people reporting higher levels of achievement behavior reported *lower* levels of sense of entitlement and people with higher aspiration levels did report *higher* levels of sense of entitlement. This study could thus not confirm claims in previous research (i.e., Hershatter & Epstein, 2010; Thompson & Gregory, 2012) that Millennials' sense of entitlement stems from them feeling pressured or from their achievement orientation.

It was expected that people feeling more performance pressure and need for achievement would feel self-entitled, because they would overestimate the likelihood of them performing well. The results of this study suggest that a 'wishful thinking effect' did not occur. Krizan and Windshitl (2007) found that there is indeed limited empirical evidence for a wishful thinking effect actually taking place. Rather, people tend to use low expectations to decrease their anxiety and brace themselves for possibly negative outcomes (Norem & Cantor, 1986). People might use this strategy to reduce the disappointment that can follow overconfident estimations of their performance (McGraw, Mellers, & Ritov, 2004). These results suggest that people feeling pressured to perform or people scoring high on recognition and achievement behavior, do not automatically feel that they deserve good outcomes.

The only concept for which the anticipated wishful thinking effect did occur was for aspiration level: the higher the score on this concept, the higher the score on sense of entitlement. Items used here focus on work-related challenges, having high standards and outperforming oneself. These items all include a basic level of self-confidence or a belief of a basic level of quality. Aspiration level differed in this respect from the other concepts: the other concepts do not include such an implicit assumption of quality. Entitlement has been linked to such self-serving attributions in the past (Harvey & Martinko, 2009). As such, it makes sense that a higher aspiration level is associated with more sense of entitlement, whereas higher levels of the other concepts are not.

It was also examined whether sense of entitlement mediates the relationship between performance pressure and stress and between need for achievement and stress. The former mediation could be ruled out because performance pressure was not related to sense of entitlement. The latter could be ruled out as well, since the relationship between need for achievement and stress was not found either. These findings suggest that the relationships all work independently.

Differences between Millennials and older generations. Lastly, it was tested whether Millennials as a generation differ significantly from older generations. For none of the variables, it was the case that both the age groups 15-24 and 25-34 scored significantly different than the older groups did. Millennials were expected to score higher because they possess traits supposedly leading to the concepts investigated in this study. It could be that people from older generations obtain the same scores as Millennials, but for different reasons. For instance, whereas a Millennial is highly stressed because of the pressure that comes along with the start of his career, an older person might be equally stressed because of the severe responsibilities that come with his job. Stress could also be due to sources outside the work environment, including having to combine personal and professional responsibilities (Beauregard & Henry, 2009).

It is also remarkable that adjacent age groups rarely differ significantly. This could be, because the difference between a 23-years old and a 27-years old is not that large, yet due to this division they fall into different categories. Respondents aged 15-24 years old most often differ from another age group on the concepts. It could be that this group is actually in itself the most different from other groups. These people have less life experience and might therefore be more insecure. They also might have had an upbringing that differed most from other groups.

4.2. Strengths, Limitations and Suggestions for Further Research

Strengths. This study was unique in that it empirically tested assumptions made by popular media regarding stress and Millennials. It combined arguments from popular and scientific literature and, thus, responds well to both academic and societal questions. A second strength is that this study controlled for relations between variables by conducting multiple regression analyses. Therefore, it reported only the unique variance explained by a variable, on top of the variance explained by other concepts. This method is more refined than conducting separate univariate analyses, as it reduces the chance of error (Field, 2009). A third strength is that this study provides detailed insights into the relations between the studied

concepts. This study can therefore provide valuable suggestions for interventions. Finally, this study was – as far as is known – the first that looked in detail at differences between age groups on the concepts of stress, performance pressure, need for achievement and sense of entitlement. It was strong in that it added this perspective to the existing base of literature.

Limitations and suggestions for further research. A first limitation is that this study used subscales of need for achievement with rather low reliabilities. Low reliability implies that items on the scale possibly measure different concepts (Tavakol & Dennick, 2011). It is therefore questionable whether the scales *actually* measured subsets of need for achievement. Aspiration level and achievement behavior brought about significant results in two out of four analyses conducted; recognition behavior did not result in significant results in any of the analyses. The trustworthiness of these results is questionable, due to the low reliability of the scales. Future studies could test whether the PMT measures the concept accurately. Also, different measurement instruments could be used to replicate this study. The Thematic Apperception Test (McClelland, Clark, Roby, & Atkinson, 1949; Murray, 1943) and the Achievement Motivation Scale (Hsu et al., 2010) are plausible alternatives to measure need for achievement. Possibly, these measurement instruments could harvest different results.

A second limitation is that the instruments used relied on self-report. These measures are shown to be prone to the social desirability bias: participants could have answered questions in a particular way that put them in a more favorable light (Nolen-Hoeksema, Fredrickson, Loftus, & Wagenaar, 2009). Future studies could look into whether it is possible to measure psychological concepts via methods not using self-report.

Third, the sample consisted mostly of highly educated individuals. People with higher education and economic status are said to be more optimistic and better equipped to cope with stress (Finkelstein, Kubzansky, Capitman, & Goodman, 2007). Future studies could try to recruit a more diversely educated sample, to see if variance in stress is different. Moreover, this study only included respondents working 16 hours per week or more. It would also be interesting to include full-time working respondents in the sample only. It can be that they experience the concepts more thoroughly and as a result expected relations might occur.

Fourth, no conclusions about causes of stress can be drawn based on this study, because it had a cross-sectional design. Based on this study, it cannot be concluded that extrinsic performance pressure *causes* stress. Future studies could replicate this study using a longitudinal design. This can provide more insights into the directionality of the causal relations between performance pressure, need for achievement, sense of entitlement and stress.

Additional suggestions for further research include investigating the influence of other personality traits on stress. For instance, being generally pessimistic was found to predict poor health in a longitudinal study (Peterson, Seligman, & Vaillant, 1988). Optimism seems to be related to better psychological adjustment and, therefore, to lower stress-levels (Chang, Rand, & Strunk, 2000). Such personality traits might be confounding factors in the relations investigated here. For instance, the relationship between performance pressure and stress might be weaker for introverted individuals because they are more resilient to the influence of external pressures on stress. Future studies could look at these effects in more detail.

Lastly, relations between the concepts studied here and burnout could be investigated directly in future studies. Stress is considered to be a significant predictor of burnout (Maslach et al., 2001) and is one of the reasons for stress-related absences (ArboNed, 2015). Burnout has been positively related to experiencing pressure to publish among medical professors (Tijdink, Vergouwen, & Smulders, 2013) and need for achievement has been negatively linked to different components of burnout as well (Moneta, 2011).

4.3. Theoretical and practical implications

This study investigated relations between performance pressure, need for achievement and sense of entitlement and stress. It enriched the existing base of knowledge about this topic, by also investigating the differences between age groups on these four concepts. A second theoretical implication of this study is that the performance pressure, need for achievement and sense of entitlement apparently overlap considerably: they explained similar variance in stress in this study. This overlap should be recognized when future studies are designed.

Two practical implications can be noted based on this study. This study shows that feeling pressured to perform for external reasons (i.e. impressing others, obtaining respect from others) is more strongly linked to stress than the other concepts were. It is important that awareness is raised about the fact that performing for this reason is positively associated with stress. This could be done through an awareness campaign, also targeting parents to alert them that putting pressure on their children is likely to make them feel stressed. Such campaigns might help people realize that performing to impress others is actually an *irrational belief*: a dysfunctional belief that people should let go because it constrains them (Ellis, 1994).

A second practical implication can be derived from the fact that few significant differences between age groups were found. This hints at the fact that stress and pressure might be more due to the way we organize our society these days (hence: impacting multiple

generations), rather than it being a generational problem. It is important that employers do not focus their anti-stress campaigns solely on Millennials, but also include older employees in these initiatives. This being said, it is important that young employees are offered adequate assistance with expectation management as they enter the labor market: this study did reveal 15-24 year olds to have a significantly higher aspiration level than all other age groups did.

4.4. Final note

This study found that extrinsic social performance pressure was the most important concept in explaining stress, more so than intrinsic performance pressure, sense of entitlement and need for achievement were. This study highlights the importance of lowering experienced performance pressure to decrease stress levels. Moreover, Millennials as a generation do not differ significantly from other age groups on the concepts studied here. This study could not find proof for claims made by popular media that Millennials feeling stressed or pressured are a result of generational effects. Finally, it is important to note that effect sizes found in this study were only small to medium. As such, conclusions derived from this research have to be taken with caution.

References

- IV Jongerenpanel. (2014). *Onderzoek "Stress."*
- Abdel-Halim, A.A. (1981). Effects of Role Stress-Job Design-Technology Interaction on Employee Work Satisfaction. *Academy of Management Journal*, 24(2), 260–273.
- American Psychological Association. (2010). *Stress in America*.
- American Psychological Association. (2012). *Stress by Generation*.
- ArboNed. (2015). Verzuim door Stress op Steeds Jongere Leeftijd. Retrieved October 3, 2015, from <http://www.arboned.nl/nieuwscentrum/persberichten-en-publicaties/verzuim-door-stress-op-steeds-jongere-leeftijd/>
- Atkinson, M.L. (2004). Advice for (and from) the Young at Heart: Understanding the Millennial Generation. *Guidance & Counseling*, 19(4), 153–157.
- Baron, R.M., & Kenny, D.A. (1986). A Three-Pathway Ppsychobiological Model of Craving for Alcohol. *Journal of Personality and Social Psychology*, 51(6), 1173–1182.
- Bastardi, A., Uhlmann, E.L., & Ross, L. (2011). Wishful Thinking: Belief, Desire, and the Motivated Evaluation of Scientific Evidence. *Psychological Science*, 22(6), 731–732.
- Beauregard, A.T., & Henry, L.C. (2009). Making the link between work-life balance practices and organizational performance. *Human Resource Management Review*, 19, 9–22.
- Bland, H., Melton, B., Welle, P., & Bigham, L. (2012). Stress Tolerance: New Challenges for Millennial College Students. *College Student Journal*, 46(2), 362–376.
- Campbell, W.K., Bonacci, A.M., Shelton, J., Exline, J.J., & Bushman, B.J. (2004). Psychological Entitlement: Interpersonal Consequences and Validation of a Self-Report. *Journal of Personality Assessment*, 83(1), 29–45.
- Chang, E.C., Rand, K.L., & Strunk, D.R. (2000). Optimism and Risk for Job Burnout among Working College Students: Stress as a Mediator. *Personality and Individual Differences*, 29(2), 255–263.
- Coomes, M.D., & DeBard, R. (Eds.). (2004). *Serving the Millennial Generation: New Directions for Student Services, Number 106*. Hoboken: John Wiley & Sons.
- Dang, H.A., & Rogers, F.H. (2008). The Growing Phenomenon of Private Tutoring. *World Bank Research Observer*, 23(2), 161–200.
- Deal, J.J., Altman, D.G., & Rogelberg, S.G. (2010). Millennials at Work: What We Know and What We Need to Do (If Anything). *Journal of Business and Psychology*, 25(2), 191–199.
- DeBard, R. (2004). Millennials Coming to College. *New Directions for Student Services*, 2004(106), 33–45.

- Deci, E.L., & Ryan, R.M. (2000). The “What” and “Why” of Goal Pursuits: Human Needs and the Self-Determination of Behavior. *Psychological Inquiry*, 11(4), 37–41.
- Ellis, A. (1994). *Reason and Emotion in Psychotherapy*. New York: Birch Lane Press.
- Field, A. (2009). *Discovering statistics using SPSS*. London: SAGE Publications.
- Finkelstein, D.M., Kubzansky, L.D., Capitman, J., & Goodman, E. (2007). Socioeconomic Differences in Adolescent Stress: the Role of Psychological Resources. *Journal of Adolescent Health*, 40(2), 127–134.
- Gagne, M., Forest, J., Gilbert, M.H., Aube, C., Morin, E., & Malorni, A. (2010). The Motivation at Work Scale: Validation Evidence in Two Languages. *Educational and Psychological Measurement*, 70(4), 628–646.
- Gagné, M., Forest, J., Vansteenkiste, M., Crevier-Braud, L., Van den Broeck, A., Aspeli, A. K., & Wang, Z. (2012). Validation Evidence in Ten Languages for the Revised Motivation at Work Scale. *Manuscript Submitted for Publication*.
- Gaillard, A. (2003). *Stress, Productiviteit en Gezondheid*. Amsterdam: Nieuwezijds.
- George, D., & Mallery, P. (2003). *SPSS for Windows Step by Step: A Simple Guide and Reference. 11.0 Update*. Boston: Allyn & Bacon.
- Gilligan, C. (1982). *In a Different Voice*. Cambridge: Harvard University Press.
- Greenberger, E., Lessard, J., Chen, C., & Farruggia, S.P. (2008). Self-Entitled College Students: Contributions of Personality, Parenting, and Motivational Factors. *Journal of Youth and Adolescence*, 37(10), 1193–1204.
- Griffin, M.L., Hogan, N.L., Lambert, E.G., Tucker-Gail, K.A., & Baker, D.N. (2009). Job Involvement, Job Stress, Job Satisfaction and Organizational Commitment and the Burnout of Correctional Staff. *Criminal Justice and Behavior*, 1–17.
- Haney, P., & Durlak, J.A. (1998). Changing Self-Esteem in Children and Adolescents: A Meta-Analytical Review. *Journal of Clinical Child Psychology*, 27(4), 423–433.
- Harvey, P., & Harris, K.J. (2010). Frustration-Based Outcomes of Entitlement and the Influence of Supervisor Communication. *Human Relations*, 63(11), 1639–1660.
- Harvey, P., & Martinko, M.J. (2009). An Empirical Examination of the Role of Attributions in Psychological Entitlement and its Outcomes. *Journal of Organizational Behavior*, 30(4), 459–476.
- Hermans, H.J.M. (1970). A Questionnaire Measure of Achievement Motivation. *Journal of Applied Psychology*, 54(4), 353–363.
- Hermans, H.J.M. (1976). *Prestatie Motivatie Test Handleiding*. Amsterdam: Harcourt Assessments BV.

- Hershatter, A., & Epstein, M. (2010). Millennials and the World of Work: An Organization and Management Perspective. *Journal of Business and Psychology, 25*(2), 211–223.
- Holt, S., Marques, J., & Way, D. (2012). Bracing for the Millennial Workforce: Looking for Ways to Inspire Generation Y. *Journal of Leadership, Accountability and Ethics, 9*(6), 81–93.
- Howe, N., & Strauss, W. (2000). *Millennials Rising: The Next Great Generation*. New York: Vintage Books.
- Hsu, H.Y., Chen, S.H., Yu, H.Y., & Lou, J.H. (2010). Job Stress, Achievement Motivation and Occupational Burnout among Male Nurses. *Journal of Advanced Nursing, 66*(7), 1592–1601.
- Hustinx, P.W.J., Kuyper, H., van der Werf, M.P.C., & Dijkstra, P. (2009). Achievement Motivation Revisited: New Longitudinal Data to Demonstrate Its Predictive Power. *Educational Psychology, 29*(5), 561–582.
- Jepson, E., & Forrest, S. (2006). Individual Contributory Factors in Teacher Stress: the Role of Achievement Striving and Occupational Commitment. *The British Journal of Educational Psychology, 76*(1), 183–197.
- Krahn, H.J., & Galambos, N.L. (2014). Work Values and Beliefs of Generation X and Generation Y. *Journal of Youth Studies, 17*(1), 92–112.
- Krizan, Z., & Windschitl, P.D. (2007). The Influence of Outcome Desirability on Optimism. *Psychological Bulletin, 133*(1), 95–121.
- Laird, M.D., Harvey, P., & Lancaster, J. (2015). Accountability, Entitlement, Tenure, and Satisfaction in Generation Y. *Journal of Managerial Psychology, 30*(1), 87–100.
- Lefkowitz, J., & Fraser, A.W. (1980). Assessment of Achievement and Power Motivation of Blacks and Whites. *Journal of Applied Psychology, 65*(6), 685–696.
- Maslach, C., Schaufeli, W.B., & Leiter, M.P. (2001). Job Burnout. *Annual Review of Psychology, 52*, 397–422.
- McClelland, D.C. (1985). *Human Motivation*. Glenview: Scott, Foresman.
- McClelland, D.C., Clark, R.A., Roby, T.B., & Atkinson, J.W. (1949). The Projective Expression of Needs; the Effect of the Need for Achievement of Thematic Apperception. *Journal of Experimental Psychology, 39*(2), 242–255.
- McGraw, A.P., Mellers, B.A., & Ritov, I. (2004). The Affective Costs of Overconfidence. *Journal of Behavioral Decision Making, 17*, 281–295.
- Millennials in the Workplace. (2015). Retrieved March 16, 2016, from <http://www.huffingtonpost.com/news/millennials-in-the-workplace/>

- Mirowsky, J., & Ross, C.E. (1989). *Social Causes of Psychological Distress*. New York: Aldine de Gruyter.
- Moneta, G.B. (2011). Need for Achievement, Burnout, and Intention to Leave: Testing an Occupational Model in Educational Settings. *Personality and Individual Differences*, 50(2), 274–278.
- Moore, A. (2005). They've Never Taken a Swim and Thought about Jaws: Understanding the Millennial Generation. *College and University*, 82(4), 41–53.
- Murray, H.A. (1943). *Thematic Apperception Test Manual*. Cambridge: Harvard University Press.
- Ng, E.S.W., Schweitzer, L., & Lyons, S.T. (2010). New Generation, Great Expectations : A Field Study of the Millennial Generation. *Journal of Business and Psychology*, 25(2), 281–292.
- Nolen-Hoeksema, S., Fredrickson, B.L., Loftus, G.R., & Wagenaar, W.A. (2009). *Atkinson & Hilgard's Introduction to Psychology*. Hampshire: Cengage Learning EMEA.
- Norem, J.K., & Cantor, N. (1986). Defensive Pessimism: Harnessing Anxiety as Motivation. *Journal of Personality and Social Psychology*, 51(6), 1208–1217.
- Peterson, C., Seligman, M.E., & Vaillant, G.E. (1988). Pessimistic Explanatory Style is a Risk Factor for Physical Illness. *Journal of Personality and Social Psychology*, 55(1), 23–27.
- Ramirez, A.J., Graham, J., Richards, M.A., Gregory, W.M., & Cull, A. (1996). Mental Health of Hospital Consultants: the Effects of Stress and Satisfaction at Work. *The Lancet*, 347(9003), 724–728.
- Robbins, A. (2006). *The Overachievers: The Secret Lives of Driven Kids*. New York: Hyperion.
- Salmela-Aro, K., Tolvanen, A., & Nurmi, J.E.E. (2009). Achievement Strategies during University Studies Predict Early Career Burnout and Engagement. *Journal of Vocational Behavior*, 75(2), 162–172.
- Schaufeli, W.B., & Buunk, B.P. (2003). Burnout: An Overview of 25 Years of Research in Theorizing. In M.J. Schabracq, J.A.M. Winnubst, & C.L. Cooper (Eds.), *The handbook of work and health psychology* (pp. 383–425). Chichester: Wiley.
- Snow, J.N., Kern, R.M., & Curlette, W.L. (2001). With Attrition in Systematic Training for Effective Parenting Groups. *Therapy*, 9(2), 102–108.
- Solnet, D., Kralj, A., & Kandampully, J. (2012). Generation Y Employees: An Examination of Work Attitude Differences. *Journal of Applied Management and Entrepreneurship*, 17(3), 36–54.

- Stewart, K., & Bernhardt, P. (2010). Comparing Millennials to Pre-1987 Students and with One Another. *North American Journal of Psychology*, *12*(3), 579–602.
- Strauss, W., & Howe, N. (1991). *Generations: The History of America's Future, 1584 to 2069*. New York: Morrow.
- Tavakol, M., & Dennick, R. (2011). Making Sense of Cronbach's Alpha. *International Journal of Medical Education*, *2*, 53–55.
- Terluin, B., van Rhenen, W., Schaufeli, W.B., & De Haan, M. (2004). The Four-Dimensional Symptom Questionnaire (4DSQ): Measuring Distress and Other Mental Health Problems in a Working Population. *Work & Stress*, *18*(3), 187–207.
- Thompson, C., & Gregory, J.B. (2012). Managing Millennials: A Framework for Improving Attraction, Motivation and Retention. *Psychologist-Manager Journal*, *15*(4), 237–246.
- Tijdink, J.K., Vergouwen, A.C.M., & Smulders, Y.M. (2013). Publication Pressure and Burn Out among Dutch Medical Professors. *PloS One*, *8*(9), 1–4.
- Twenge, J.M. (2006). *Generation Me: Why Yoday's Young American are More Confident, Assertive, Entitled and More Miserable Than Ever Before*. New York: Free Press.
- Twenge, J.M. (2014). *Generation Me-Revised and Updated*. Simon and Schuster.
- Twenge, J.M., & Campbell, S.M. (2008). Generational Differences in Psychological Traits and Their Impact on the Workplace. *Journal of Managerial Psychology*, *23*(8), 862–877.
- Twenge, J.M., Campbell, S.M., Hoffman, B.J., & Lance, C.E. (2010). Generational Differences in Work Values: Leisure and Extrinsic Values Increasing, Social and Intrinsic Values Decreasing. *Journal of Management*, *36*(5), 1117–1142.
- Twenge, J.M., & Campbell, W.K. (2001). Age and Birth Cohort Differences in Self-Esteem. *Personality and Social Psychology Review*, *5*(4), 321–344.
- Twenge, J.M., Campbell, W.K., & Gentile, B. (2012). Generational Increases in Agentic Self-evaluations among American College Students, 1966–2009. *Self and Identity*, *11*(4), 409–427.
- Urban, T. (2013). Why Generation Y Yuppies Are Unhappy. Retrieved January 1, 2015, from <http://waitbutwhy.com/2013/09/why-generation-y-yuppies-are-unhappy.html#>
- Visser, J. (2014). Gewoon een Goede Leerling Zijn Is Niet Goed Genoeg Meer. *De Correspondent*. Retrieved from <https://decorrespondent.nl/1869/Gewoon-een-goede-leerling-zijn-is-niet-goed-genoeg-meer/148497657-02551d89>
- Ward, C.H., & Eisler, R.M. (1987). Type A Behavior, Achievement Striving, and a Dysfunctional Self-Evaluation System. *Journal of Personality and Social Psychology*, *53*(2), 318–326.

Appendix 1: Subscales of the Prestatie Motivatie Test (PMT)

Translated statements from the Dutch instruction manual of the PMT (Hermans, 1976) into English.

Aspiration level: the achievement-oriented individual has a relatively high aspiration level, within the borders of his or her own capacities. He pursues realistic goals that do, however, include such a degree of difficulty that they comprise a challenge.

Recognition behavior: the achievement-oriented individual has a strongly developed assertiveness and need to be recognized. He or she enjoys excelling at something and will try to provoke this.

Achievement behavior: the achievement-oriented individual exhibits strongly achievement-oriented behavior, because performing provides him or with a sense of satisfaction or accomplishment.

Appendix 2: Complete reliability and factor analysis

The scale used for stress overall had excellent reliability, with Cronbach's $\alpha = .949$ (George & Mallery, 2003). The corrected item-total correlations indicated that all items had a good correlation with the total score of the scale (all above .30). Reliability would increase slightly if one item were deleted. A principal axis factoring analysis (PAF) revealed that the 16 items loaded on three factors rather than only one. Yet, as this scale is a generally accepted one and reliability was already excellent, all 16 items were retained.

The scale used for sense of entitlement had good reliability, with Cronbach's $\alpha = .821$ (George & Mallery, 2003). The corrected item-total correlations indicated that one item had a low correlation (.146) with the total score of the scale and deleting this item would improve reliability. Principal axis factoring analysis (PAF) also revealed this item to load on a different factor than all other items did. Therefore, this item was omitted from the scale, resulting in an 8-item scale for sense of entitlement with Cronbach's $\alpha = .841$, which can be considered good reliability (George & Mallery, 2003).

Two subscales were used to measure performance pressure. The subscale intrinsic regulation overall had good reliability (Cronbach's $\alpha = .801$) and subscales extrinsic social regulation had acceptable reliability of Cronbach's $\alpha = .732$. The corrected item-total correlations indicated that all items had a good correlation with the total score of the scale (all above .30) and deleting none of the items would substantially improve reliability. PAF analysis revealed that items for all of the scales loaded on only one factor.

Need for achievement was measured using three subscales. The subscale recognition behavior had poor reliability (Cronbach's $\alpha = .530$) and PAF analysis revealed items to load on three different factors. Items that cluster on the same factors suggest that factor 1 actually represents recognition behavior (i.e. opinions of what others think of performance), whereas factor 2 represents a comparison between one's own and others' levels of achievement and factor 3 comprised an item measuring what others think about someone's level of performance. The corrected item-total correlations also indicate that items loading on factors 2 and 3 had low correlations (respectively .281, .082 and .086) with the total score of the scale. Deleting these items would substantially improve reliability. Therefore, only the three items loading on factor 1 were used, resulting in a 3-item subscale recognition behavior with good reliability (Cronbach's $\alpha = .793$).

Subscale aspiration level had unacceptable reliability (Cronbach's $\alpha = .491$). PAF analysis revealed that one item loaded on a different factor. Corrected item-total correlations indicated that this item had a low correlation of .097 with the total score of the scale and

reliability would improve substantially if this item were omitted from the scale. As such, a 3-item subscale was used for aspiration level, increasing reliability to Cronbach's $\alpha = .598$, which can be considered questionable.

Lastly, the subscale achievement behavior had questionable reliability (Cronbach's $\alpha = .662$). PAF analysis revealed that all items loaded on the same factor. Deleting one item would improve reliability slightly and the corrected item-total correlation of this item also indicates a low correlation with the entire scale ($r = .221$). Looking at the content of the items, however, this item did not differ notably from the other items. As reliability would improve only slightly to Cronbach's $\alpha = .671$ when deleting this item and there were no clear arguments based on the content of the items to delete this item, it was decided to retain all six items.

After this, scores of separate items were averaged, resulting in composite scores for each of the concepts that were used for analysis.

Appendix 3: Mean scores and standard deviations of different age groups on the dependent variables

Table 7. Mean scores (M) and Standard Deviations (SD) of different age groups on the dependent variables

Dependent variables	Stress		Int. performance pressure		Ext. performance pressure		Recognition behavior		Aspiration level		Achievement behavior		Sense of entitlement	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
15-24 years	2.05	0.91	5.62	0.84	4.88	1.04	3.98	0.66	4.25	0.47	4.01	0.54	3.50	1.04
25-34 years	1.65	0.61	4.96	1.09	4.25	1.17	3.84	0.69	3.85	0.44	3.81	0.46	3.41	0.92
35-44 years	1.68	0.85	4.88	1.22	3.97	1.37	3.89	0.56	3.78	0.61	3.95	0.42	3.37	1.15
45-54 years	1.53	0.55	4.42	1.34	3.54	1.32	3.58	0.78	3.84	0.50	4.20	0.40	3.11	0.94
55-64 years	1.60	0.74	4.51	1.29	3.76	1.36	3.76	0.68	3.50	0.64	3.91	0.44	3.38	1.05
Total	1.70	0.74	4.90	1.22	4.11	1.31	3.81	0.69	3.85	0.57	3.95	0.47	3.36	1.01