THE RELATIONSHIPS BETWEEN STRESS, WELL-BEING, JOB SATISFACTION, AND COPING IN THREE EUROPEAN COUNTRIES

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Abstract

The purpose of this study was to examine the relationships between stressors, job satisfaction, well-being, the influence of coping on these relationships and differences for Great Britain, Romania and The Netherlands using the Occupational Stress Indicator-2. 224 participants in Great Britain, 239 participants in Romania and 242 participants in the Netherlands filled in the questionnaire. The stressors workload, hassles and poor organisational climate did have a negative relationship with well-being, as expected. The stressor personal responsibility had a positive relationship with well-being. Country was moderating the relationship between managerial role and well-being and personal responsibility and well-being. Coping was mediating the relationships of poor relationships and well-being, and home/work balance and well-being. Well-being did not have a significant relationship with job satisfaction.

INTRODUCTION

During the last 10 years much research has been done on well-being in general, but less research has been done on mental well-being in relation to work and the influence that culture can have on this relationship. These relationships are important since work is an important part of individual lives and society as a whole. The purpose of this study is therefore to examine the relationships between stressors, job satisfaction and mental well-being and the effect of coping on those relationships. Furthermore, the influence of the national culture of Great Britain, Romania and the Netherlands will be examined. Since the Occupational Stress Indicator 2 (OSI-2) combines different scales, this instrument will be used. The original OSI was developed as a standardised measure that can be used in different sectors in different countries (C.L. Cooper, personal communication, July 18, 2006). The OSI-2 measures, among other
things, well-being, job satisfaction, stressors and coping.

**Mental Well-being**

Well-being is “people's positive evaluation of their lives,” and it “includes positive emotion, engagement, satisfaction and meaning,” (Seligman in Diener & Seligman, 2004). There are two types of well-being. The first type is physical well-being and the second type is mental well-being. Physical well-being can be measured subjectively and objectively. In the case of physical well-being, the presence of several diseases, cardiovascular diseases and cancer for example, can be objectively measured. The subjective measurement of well-being is achieved by asking people to assess their physical and/or mental well-being.

During the last 10 years quite a lot of research has been done on the relationships of well-being and other concepts. For some time researchers assumed that a higher income would make people happier. But the mental well-being of people has decreased over the last decades, while prosperity has increased (Diener & Seligman, 2004, Gaillard, 2003). Research has found that after reaching a certain amount of gross national product, there is no relationship between prosperity and well-being (Diener & Seligman, 2004, Larsen & Buss, 2002). Income has a very weak effect on happiness when basic needs are met (Larsen & Buss, 2002). In poor countries, where basic needs are not met yet, an increase of income does have a positive effect on happiness. These basic needs are, among other things, food, security and shelter (Larsen & Buss, 2002).

This study will focus on mental well-being and its relationships with other concepts, since it is interesting to examine what can contribute or harm well-being, so that employers will know what to do to make or keep their employees happy and satisfied. Well-being has been measured differently by different researchers, measuring different concepts (Diener & Seligman, 2004). Warr (in Sui, 2002) categorised, among other constructs, job related tension, job related depression, job related burnout and moral values as job related well-being. The OSI-2 measures well-being by using three concepts, namely contentment, resilience and peace of mind. In studies by other authors using the OSI these three concepts are called state of mind, resilience and confidence level or anxiety-depression, resilience and worry, which is linked to the categorisation of Warr.

**Job Satisfaction**

Besides well-being, job satisfaction is also an important concept in work and organisation literature. Work is important in people's lives. Not only do they spend a reasonable amount of time at work and they will, because of social factors in a country, have to continue working longer than a decade ago, work can also be an important part of life in terms of identity. Since work is important in people's lives, satisfaction with work is also important.

Brief in Sparks, Concoran, Nabors and Hovanitz (2005, p. 923) defined job satisfaction as “a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences”. For Spector (1997) job satisfaction is “how people feel about their jobs and different aspects of their jobs. As it is an attitudinal variable” (p. 2). Previous research that has been done, focused, for example, on the relationship between job satisfaction and personality characteristics and mood (Ilieș & Judge, 2002), the relationship between job satisfaction and life satisfaction and the possible influence of commitment on this relationship (Moser & Schuler, 2004) and the relationship of job satisfaction with professionalism, rewards and market orientation (Hampton & Hampton, 2004).

**Stressors**

Stressors are stressful events. Stressors are therefore the causes of stress (the state) and the stress reaction (the results) (Gaillard, 2003). At the beginning of research on stress the focus was on these stressors, but these stressors cannot completely account for a stressful experience (Taylor, 2003). Therefore it is important to make a distinction between stressor and stress. Past research has pointed out some stressors as conditions that are likely to cause stress (Taylor, 2003). These can be divided in 4 broad categories of stressors at work, namely workload, work organisation, physical aspects and psychosocial aspects (Gaillard, 2003). Examples of the concepts that are part of these categories are work pace, pressure of time, extent of autonomy, loud noises and poor relationships, both at home and at work (Gaillard, 2003, Taylor, 2003).

Some of these stressors can be measured objectively, like the amount of work and loud noises, but the majority, like social
support, can only be assessed subjectively. The stressor will be appraised by a person. All events are primary appraised to assess their consequences as positive, neutral or negative. If these consequences are appraised as negative, they have to be appraised to the extent of harmfulness or threat for the future, or the possibility of a challenge and also appraised secondarily, which means that the sources of coping skills and sources to cope with the threat or challenge are assessed (Taylor, 2003). Only when the event is appraised as negative and there are not enough sources of coping skills stress occurs (Taylor, 2003). ‘Stress is a state in which a person is not able or does not consider himself/herself to be able to meet with the demands of the environment (Gaillard, 2003, p. 127). According to Kompier (Kompier in Gaillard, 2003, p. 127) there are some conditions that have to be added to this definition, for instance that “the person has to have interest in the situation, the person has something to lose if the situation ends badly, the person cannot or does not want to withdraw from the situation, and the person must feel insecure about the course of the events”.

Coping

Coping is the process of dealing with demands, which are thought of as exceeding the sources of that person. There are several taxonomies, which were developed by different researchers. One of the first taxonomies of coping was developed by Lazarus and Folkman (Lazarus & Folkman in Bennett, 2000) which divided two main types of coping, namely problem focused coping and emotion focused coping. Among them are several coping strategies, like “confrontive coping, distancing, self-control, seeking social support, accepting responsibility, avoidance, planful problem solving and positive reappraisal” (Lazarus & Folkman in Bennett, 2000, p. 177). A taxonomy that divides three coping strategies is the taxonomy of Endler, Parker and Summerfeldt (Endler, Parker & Summerfeldt in Bennet, 2000). These coping strategies are task-oriented, emotion-oriented and avoidance-oriented. Some concepts have a relationship with coping; personality for example can influence the selection of coping responses and strategies (Taylor, 2003).

Cultures and Countries

In this study 3 countries, Great Britain, Romania and The Netherlands will be classified on basis of the 5 dimensions of Hofstede (2001). These 3 countries were chosen since they differ on the cultural dimensions of Hofstede and on the economical and political situation, which can all have an impact on work life. First the dimensions of Hofstede will be discussed and after that the economical and political situations. Hofstede defines the first dimension, power distance as “the power distance between a boss B and a subordinate S in a hierarchy is the difference between the extent to which B can determine the behaviour of S and the extent to which S can determine the behaviour of B,” (2001, p. 83). In countries in which power distance is high there are large organisation pyramids; the ideal boss is somebody showing autocratic leadership and managers are not satisfied with their career (Hofstede, 2001).

The second dimension is uncertainty avoidance. Uncertainty consists of 3 components, namely rule orientation, employment stability and stress (Hofstede, 2001). The component rule orientation means if people think that rules of a company can be broken, if people, for example, think that rules always have to be complied with, then this indicates an intolerance of uncertainty (Hofstede, 2001). The second component, employment stability, refers to the time the person expects to work for the same company. The third component, stress, refers to how often the employee feels nervous or tensed during work (Hofstede, 2001).

The third dimension is individualism-collectivism. Individualism indicates care for oneself opposed to care for the group one belongs to (Berry, Poortinga, Segaal & Dasen, 2002). The fourth dimension is masculinity-femininity. Masculinity refers to “the extent of emphasis on work goals and assertiveness as opposed to interpersonal goals and nurturance” (Berry et al., 2002, p. 64). People, who live in countries that score high on the dimension masculinity, live, in general, to work and managers are expected to be assertive, decisive and aggressive (Hofstede, 2001).

The last dimension, which was added later on, is long term versus short term orientation. “Long term orientation stands for the fostering of virtues oriented towards future rewards, in particular, perseverance and thrift. The opposite pole, short term orientation, stands for the fostering of virtues related to the past and present, in particular, respect for tradition, preservation of “face”, and fulfilling social obligations,” (Hofstede, 2001, p. 359). Long term orientation concerns the values in
The economical situation in Romania is very different from those of Great Britain and the Netherlands, partly due to the great political changes this country has gone through over the last the past years (Pitariu, 2004). The political changes influenced the economy and job market, which can cause stress. Even though the country is working towards a strong competitive economy, it is not yet the same as Great Britain or The Netherlands. Great Britain and the Netherlands are also quite different. Although both are stable democratic countries, their economic situation can be quite different, also due to the direct economical link between the Netherlands and the European Union, which can influence the job market and, thus possible stress in the state.

The Relationships Between the Constructs

The relationships between the constructs, well-being, sources of pressure, coping and job satisfaction, for managers in Hong Kong and Taiwan were studied (Siu, Lu & Cooper, 1999). Since only a limited group in Asia was studied here, more research is necessary to study the relationships between the constructs for people that have different functions. In the study of Siu et al. (1999) it becomes clear that there were differences in the relationships between the two countries. For managers in Hong Kong, for instance, organisational climate had a negative relationship with mental well-being and for managers in Taiwan, managerial role and hassles had a negative relationship with mental well-being.

The relationship between stressor and well-being

There is a large amount of possible stressors it is not possible to study all these stressors and, therefore, a selection is made of stressors examined in this study, based on the OSI-2. The specific stressors of the OSI were psychometrically determined by the developers of this instrument after multivariate analysis (C.L. Cooper, personal communication, July 18, 2006). These stressors are: workload, poor relationships, home/work balance, managerial role, personal responsibility, lack of recognition, hassles and organisational climate. Some of these stressors were studied before in relation to well-being, others have not yet been studied. Even though the same stressors were examined in the study of Siu et al. (1999), not every stressor was considered thoroughly. Therefore, for some stressors reference will be made to other research and for some stressors there will be no further information available yet. Since the study of Siu et al.(1999) indicated that sources of stress have a negative relationship with well-being, a negative relationship will be assumed between well-being and the stressors that were not thoroughly considered by Siu et al.(1999) or examined in other research. In some studies, which examine the relationship between stressors and well-being, there was a limited group of participants, which makes the outcomes possibly not generalisable to other professional groups.

Workload. Some research has been done on the relationship between workload and well-being. Rydstedt, Johansson and Evans (1998) for example conducted a longitudinal research on the relationships between workload, health and well-being for bus drivers. The research was concerned with workload that was perceived by the participants and participants were actually asked if they thought that the workload was too high. Well-being was measured by asking the participants how much they had to make an effort to do their jobs on an average workday. The results showed that change in workload predicted the perceived effort, so change in workload predicted well-being. What was remarkable was that there was no difference in the relationship between workload and well-being for men and women. Other research on the relationship between workload and well-being is the study of Geurts, Kompier, Roxburgh and Houtman (2003). In this study the focus was on the mediating role of work-home interference on the relationship between workload and well-being. Two indicators of well-being were used, namely affective well-being and subjective health. The researchers used the Effort-Recovery Model that assumes that recovery of workload effects, when the person is not working, plays a crucial role in the relationship between workload and well-being. The research shows that home/work interference fully mediated the relationship between workload and well-being. Workload has therefore no direct relationship with well-being, but this effect is present because of spill over of workload through which recovery in leisure time is hindered. The hypothesis, based on previous research is therefore:
Hypothesis 1a: Workload has a positive relationship with home/work balance.

A relationship that is connected with this relationship is between home-work balance and well-being.

Home/work balance. Home/ work balance is a term that is not used frequently. The terms work-to-home, work-to-family-conflict or family-to-work conflict are used more frequently. According to Geurts et al. (2003) work-to-home interference is the same as work-to-family conflict. Home/work balance is more concerned with family-to-work conflict, where a person can not function well at work because of responsibilities at home. This is less frequently occurring than work-to-family conflict (Geurts et al., 2003), but family-to-work conflict has a significant relationship with stress and, besides that, there is a moderately strong relationship between work-to-family conflict and family-to-work conflict (Anderson, Coffey & Byerly, 2002). It is therefore useful to examine the explored relationships of work-to-family conflict and well-being. In a study by Parasuraman, Purohit, Godshalk and Beutell (1996) well-being was measured for entrepreneurs by using 3 indicators, namely career satisfaction, family satisfaction and life stress. Results showed that work-to-family conflict and family-to-work conflict both influenced well-being, though they influenced different aspects of well-being. Work-to-family conflict had a relationship with increased life stress and family-to-work conflict with a decreased career satisfaction. A few years later Grant-Vallone and Donaldsson (2001) conducted a longitudinal study on the consequences of work-family conflict on the well-being on employees. Well-being was measured by using the General Well-being scale. Results showed that work-family conflict, social desirability being checked for, is a longitudinal predictor of positive well-being. Longitudinal research has also been done on the relationship between work-to-family conflict, well-being and satisfaction (Kinnunen, Geurts & Mauno, 2004). Well-being was measured by well-being in the parental role and general well-being. Results showed that the relationship between these variables was different for men and women. For men work-to-family conflict predicted job dissatisfaction, well-being in the parental role and the psychological symptoms of general well-being one year later. For men low job satisfaction or well-being precedes work-to-family conflict. Research of Anderson et al. (2002) shows furthermore an indirect negative relationship between family-to-work conflict and job satisfaction. The following hypothesis is based on the results of the preceding studies described.

Hypothesis 1b: home/work balance has a negative relationship with well-being.

Poor relationships. The stressor poor relationships is concerned with the possible pressure caused by absence of consultation and communication at work, the lack of encouragement of managers and inadequate feedback on performance. In the past years research has mainly been done on the influence of support of the manager on well-being of the employee, which is part of the stressor poor relationships. The first study on this topic was done in the seventies (Gavin, Kelly in Gilbreath & Benson, 2004). Moyle (1998) has done research on the influence of support of the manager on well-being of the employee. Support of the manager was found to be influencing job satisfaction. Managerial support also had a relationship with mental health. Gilbreath and Beson (2004) found support for their hypothesis that the behaviour of the supervisor influences the well-being of the employee. They examined a lot of different kinds of behaviour of supervisors, for instance job control, leadership, communication and consideration. Some of these behaviours of the supervisor will also be examined in this study. Relationships are thus very important for the employee and the hypothesis is therefore:

Hypothesis 2: Poor relationships have a negative relationship with well-being.

Lack of recognition. Lack of recognition is not working at the appropriate level in terms of skills, unclear promotion expectations, the lack of potential career progress and possibilities for personal development. Arnold (1994) examines, among other things, the relationship between possibilities to use skills and well-being. Skill use is part of recognition. Well-being was measured through 3 aspects, namely self-assurance, adjustment and life satisfaction. The possibility to use skills only had a relationship with one aspect of well-being, namely self-assurance. The hypothesis based on these results is as follows:

Hypothesis 3: Lack of recognition has a negative relationship with well-being.
Organisational climate. The stressor organisational climate consists of different aspects, such as changes in the way the employees are asked to do their jobs, factors that are not under the control of employees, moral and organisation climate itself and characteristics of the organisation’s structure and design. Research of Mäkikangas and Kinnunen (2003), which measured well-being on basis of job satisfaction, emotional exhaustion, mental distress and physical symptoms, showed that a poor organisation climate had a positive relationship with one negatively formulated aspect of well-being, namely emotional exhaustion and a negative relationship with one aspect of well-being, namely job satisfaction for women, while for men a poor organisation climate had a significant relationship with all indicators of well-being. The hypothesis, based on the results of preceding research, is as follows:

Hypothesis 4: A poor organisational climate has a negative relationship with well-being.

The other stressors in this study that might be important are managerial role, personal responsibility and hassles at work. The stressors managerial role means the stress that can be caused by the tasks of a manager, such as firing people and business travel. Examples of personal responsibility are taking risks, making decisions, dealing with ambiguous situations and the implications of mistakes. Examples of hassles are keeping up with innovations, attending meetings and being available. At this moment there is only research of Siu et al. (1999) known studying the relationship between these stressors and well-being. For the stressors hassles, managerial role and personal responsibility a negative relationship with well-being is expected, as explained earlier.

Hypothesis 5: Hassles have a negative relationship with well-being.

Hypothesis 6: Managerial role has a negative relationship with well-being.

Hypothesis 7: Personal responsibility has a negative relationship with well-being.

Besides the direct relationship between stressor and well-being culture can also influence the extent to which a potential stressor is perceived as a stressor. For power distance an effect is expected on the extent to which managerial role is perceived as a stressor and for uncertainty avoidance on personal responsibility. For employees in a culture that scores low on the dimension power distance, being seen as the boss and having to fire people can be perceived as something very unpleasant, since people in these countries prefer to have small power distance between superior and subordinate. The power distance is expected to be higher in Romania than in Great Britain and The Netherlands.

Hypothesis 8: For employees from Great Britain and the Netherlands, the relationship between managerial role and well-being will be stronger than for employees from Romania.

For employees in a culture that scores high on the dimension uncertainty avoidance, having a lot of responsibility, taking risks and dealing with ambiguous situations can be experienced as very stressful. Romania is expected to have the highest ranking of these three countries, on uncertainty avoidance, followed by Great Britain and The Netherlands.

Hypothesis 9: For employees from Romania, the relationship between personal responsibility and well-being is stronger than for employees from Great Britain and The Netherlands.

Coping as a mediator of the relationship between stressor and well-being

The role of coping has been discussed for years. Since the following research shows that coping has a relationship with well-being and has a mediating role in the relationship of stressor and job satisfaction, this study will examine the mediating role of coping. Research has shown that problem-focused coping has a positive effect on well-being (Aryee, Luk, Leung & Lo, 1999; Hart, Wearing & Headey, 1995; Guppy & Weatherstone, 1997). The concept well-being was measured once more by different indicators. Research of van Hart et al. (1995) found that emotion-focused coping had a negative effect on well-being. Guppy and Weatherstone (1997) found that avoidance coping had a negative relationship with well-being. Research of Aryee et al. (1999) showed a relationship between problem-focused coping and job and family satisfaction. In this research job satisfaction, family satisfaction and life satisfaction were seen as indicators of well-being. Research of Elfering et al. (2005) showed no main effect of problem-focused coping and palliative coping.
on well-being. The positive effect of problem focused coping on well-being did increase when controllability increased. The relationship between palliative coping and well-being is more positive in situations that are less stressful than in situations that are more stressful. Besides these studies there also has been done research on coping as mediator of, among other things, the relationship between stress and job satisfaction (Fogarty et al., 1999). It showed that coping has a significant relationship with stress and job satisfaction and stress also had a significant relationship with job satisfaction. The following hypothesis results from the previous discussed research:

**Hypothesis 10:** Coping is a mediator for the relationship between stressors and well-being.

Research of Kohan and O’Conner (2002) has shown that job satisfaction has a relationship with some indicators of well-being that were used by the researchers. Judge and Watanabe (in Sparks et al., 2005, p. 923) found that “the correlation of subjective well-being with job satisfaction 5 years later is stronger than the correlation of job satisfaction with subjective well being 5 years later”. The effect of subjective well-being on job satisfaction seems larger than the effect of job satisfaction on subjective well-being. The hypothesis, based on these researches, is the following: Hypothesis 11: There is a positive relationship between well-being and job satisfaction.

The previous hypotheses are combined and shown in model 1.

![Model of stress effects](image)

**Figure 1.** The model of stress effects

**Method**

**Sample and procedures**

**The Netherlands**

In total 565 questionnaires were sent, with permission, to employees of three different companies. For every company the most suitable method of sending was used, which meant that in two companies the questionnaire was sent to the team or branch managers, who distributed the questionnaire to their subordinates and in one company the questionnaire was distributed by two secretaries. Since the first organisation was the largest organisation of the three, 400 questionnaires were actually distributed there. Besides the fact that filling in the questionnaire...
was voluntarily, team managers also made the decision to distribute the questionnaires or not. One hundred and seventy questionnaires were returned and made the response rate 42.5%. In the second company 100 questionnaires were distributed by two secretaries. This was to all the employees of the company in one region. 54 questionnaires were returned, which made the response rate 54.0%. In the third company 65 questionnaires were distributed, which was to all the employees of the company, 18 questionnaires were returned, which made the response rate 27.69%. In total 242 questionnaires were returned, making the overall response rate 42.83%. The distribution of the sample is shown in table 1.

**Great Britain and Romania**

In Romania employees of one factory filled in the questionnaire. The questionnaires were filled in by managers in both countries. The distributions of these two samples are also shown in table 1. In Great Britain 224 questionnaires were returned and in Romania 239. Since educational systems are quite different in the three countries, distribution of educational level is presented in a different table, table 2, in their original language.

### Table 1. Distribution sample

| Variables                        | Great Britain (%) | Romania (%) | The Netherlands (%) |
|----------------------------------|------------------|-------------|---------------------|
| **Age (in years)**               |                  |             |                     |
| Mean                             | 42.52            | 34.55       | 41.50               |
| SD                               | 11.08            | 6.56        | 10.59               |
| **Gender**                       |                  |             |                     |
| Male                             | 117 (52.2)       | 161 (67.4)  | 138 (57.0)          |
| Female                           | 106 (47.3)       | 78 (32.6)   | 104 (43.0)          |
| Did not answer                   | 1 (0.4)          | 0 (0)       | 0 (0)               |
| **Marital status**               |                  |             |                     |
| Married                          | 174 (77.7)       | 179 (74.9)  | 147 (60.7)          |
| Cohabiting                       | 11 (4.9)         | 0 (0)       | 40 (16.5)           |
| Single                           | 23 (10.3)        | 45 (18.8)   | 40 (16.5)           |
| Other                            | 15 (6.6)         | 14 (5.9)    | 15 (6.2)            |
| Did not answer                   | 1 (0.4)          | 1 (0.4)     | 0 (0)               |
| **Number of years with present company** |              |             |                     |
| Mean                             | 15.44            | 8.29        | 17.18               |
| SD                               | 9.18             | 5.33        | 11.49               |
| **Managerial position**          |                  |             |                     |
| Yes                              | 224 (100)        | 239 (100)   | 31 (12.8)           |
| No                               | 0 (0)            | 0 (0)       | 211 (87.2)          |
| **Number of hours supposed to work** |              |             |                     |
| Mean                             | 36.08            | 41.05       | 35.12               |
| SD                               | 6.02             | 4.24        | 6.88                |
| Range                            | 0-50             | 8-56        | 8-40                |
| **Number of hours beyond hours supposed to work** | | | |
| Mean                             | 8.84             | 2.85        | 1.30                |
| SD                               | 8.03             | 7.16        | 3.71                |
| Range                            | 0-60             | -25-45      | 0-40                |

*Number of employees in*
company
Up to 100 2 (0.9) 0 (0) 18 (7.4)
100-500 0 (0) 0 (0) 0 (0)
500-1000 3 (1.3) 0 (0) 0 (0)
1000-5000 4 (1.8) 0 (0) 0 (0)
Over 5000 134 (59.8) 239 (100) 224 (92.6)

Quitting intentions\textsuperscript{a}
Never 53 (23.7) 69 (28.9) 69 (28.5)
Rarely 41 (18.3) 81 (33.9) 74 (30.6)
Sometimes 83 (37.1) 60 (25.1) 74 (30.6)
Somewhat often 10 (4.5) 12 (5) 0 (0)
Quite often 22 (9.8) 9 (3.8) 20 (8.3)
Extremely often 14 (6.3) 7 (2.9) 5 (2.1)
Did not answer 1 (0.4) 1 (0.4) 0 (0)

Note: \textsuperscript{a}a five point scale was used in the Dutch sample, excluding "somewhat often".

Table 2. Sample distribution for educational level

| Education                  | United Kingdom (%) | Romania (%) | The Netherlands (%) |
|----------------------------|--------------------|-------------|---------------------|
| Secondary education        | 59 (26.3)          | 0 (0)       | 14 (5.8)            |
| College                    | 77 (34.4)          | 0 (0)       | 148 (61.2)          |
| Associates degree          | 8 (3.6)            | 5 (2.1)     | 64 (26.4)           |
| Undergraduate              | 59 (26.3)          | 230 (96.2)  | 16 (6.6)            |
| MA/MSc                     | 14 (6.3)           | 3 (1.3)     | 1 (0.4)             |
| PhD                        | 4 (1.8)            | Other       | 1 (0.4)             |
| Other                      | 2 (0.9)            |             |                     |
| Did not answer             | 1 (0.4)            |             |                     |

Comparing the samples
The samples in the three countries are different on some background variables. The mean age of Romania is lower than of the other two countries, which could also explain the difference on number of years with present company. The distribution of gender among the three countries is also different for Romania compared to Great Britain and The Netherlands. The number of people cohabiting is larger in The Netherlands than in the other two countries, which might indicate a culture difference. The employees in Romania are supposed to work more hours than the employees of The Netherlands and Great Britain and the hours that are actually worked (the hours supposed to work plus the hours beyond) are also different since there are employees in Romania that actually work less hours than they are supposed to work. The samples of Romania and The Netherlands are more similar on quitting intention compared to Great Britain.

Instrument
Participants were first asked for some demographics information. These questions can be divided in 3 categories: the person and their family, education, and work history. Examples of questions in the ‘person and their family’ category are sex, age, marital status, number of children living at home and age of the children. In the category ‘education’ participants were asked to indicate their educational level. In the last category, work history, participants were asked how many years they were working for their present company, how many employees there are in their company or organisation, how many hours they are supposed to work in a typical week and how many hours they actually work in a typical week. The participants were also asked about their quitting intentions.
After being asked to give some background information, participants were asked to fill in some parts of the Occupational Stress Indicator 2 (OSI-2), namely the parts that measure stressors, coping, mental well-being and job satisfaction. The OSI-2 is a short version of the original Occupational Stress Indicator (Spector, Cooper & Aguilar-Vafaie, 2002). The OSI-2 consists of 90 items, of which only 74 were used in this study. The scales of the parts were left complete, but the parts that measure physical well-being, type A behaviour and Locus of Control were excluded. Most research has focused on the reliability and validity of the original, longer English version (Spector et al., 2002). The part measuring job satisfaction has in the original version a Cronbach’s alpha of .85 (Spector et al., 2002). The OSI-2 was translated to Dutch with help of a bilingual person and an English teacher.

Job satisfaction was measured by using twelve items that were scored on a 6-point scale, score 1 indicating very much dissatisfaction and 6 indicating very much satisfaction. Mental well-being was measured using the three concepts contentment, resilience and peace of mind. Contentment was measured by five items that were scored on a 6-point scale, resilience was measured by four items, that were scored on a 6-point scale and peace of mind was measured by three items, which were scored on a 6 point scale. For every item there was a different meaning of score 1 and 6. Coping was measured using 10 items and a 6-point scale. Score 1 indicated never used and 6 used frequently. The last part, measuring eight potential sources of stress, consisted of 40 items. Workload was measured by six items, poor relationships by eight items, home/work balance by six items, managerial role by four items, personal responsibility by four items, hassles by four items, lack of recognition by four items, and organisational climate by four items. Participants were again asked to score on a 6-point scale and for this scale score 1 indicated that it was not a source of stress and 6 indicated it was certainly a source of stress.

Since countries on the whole score on the cultural dimensions, the scores described by Hofstede (2001) will be used to explain the interaction effects of countries.

Reliability of scales

Table 3 presents the reliability of the scales that were used in the three samples. Since for the scales managerial role and recognition, the reliability increased by deleting an item, item 1 and 23 were deleted. Reliability for the total sample of the managerial role scale became alpha = .74 and for the recognition scale alpha = .70. The reliability for the total sample was for all scales good, for Great Britain and Romania on the other hand there were some scales, managerial role, hassles, recognition and organisational climate for Romania, with a low reliability.

### Table 3. Reliabilities of sources of stress, job satisfaction, mental well-being and coping

| Source of Stress      | United Kingdom | Romania | The Netherlands | Total sample |
|-----------------------|----------------|---------|-----------------|--------------|
|                       | Mean SD Alpha  | Mean SD Alpha | Mean SD Alpha | Mean SD Alpha |
| Sources of stress     | 128.29 23.86 0.91 | 145.90 23.41 0.89 | 105.85 27.84 0.94 | 127.13 29.98 0.93 |
| Workload              | 20.41 6.03 0.81 | 20.56 5.62 0.72 | 13.45 5.70 0.85 | 13.44 5.70 0.85 |
| Poor relationships    | 25.91 7.42 0.88 | 33.98 6.28 0.78 | 23.69 7.39 0.85 | 23.63 7.35 0.85 |
| Home/work balance     | 14.22 5.31 0.76 | 19.53 4.94 0.64 | 11.97 5.08 0.84 | 11.92 5.03 0.83 |
| Managerial role       | 11.58 3.29 0.49 | 13.42 3.50 0.55 | 8.61 3.52 0.68 | 8.59 3.51 0.68 |
| Personal responsibility| 13.01 3.28 0.74 | 14.11 3.66 0.66 | 10.25 3.52 0.80 | 10.24 3.51 0.80 |
| Hassles               | 12.62 3.20 0.62 | 12.07 3.51 0.54 | 9.88 3.26 0.67 | 9.87 3.26 0.67 |
| Lack of recognition   | 12.09 4.35 0.84 | 15.42 3.49 0.56 | 11.64 4.59 0.65 | 11.61 4.58 0.65 |
| Organisational climate| 14.96 3.53 0.77 | 12.36 3.43 0.55 | 11.70 3.66 0.72 | 11.70 3.67 0.72 |
| Job satisfaction      | 41.93 8.89 0.89 | 48.30 6.95 0.86 | 49.81 73.99 1.00 | 46.81 43.96 1.00 |
| Mental well-being     | 44.43 8.25 0.76 | 51.11 8.23 0.77 | 60.17 95.17 0.99 | 52.12 56.53 0.99 |
| Coping                | 39.52 4.62 0.62 | 10.23 43.46 0.89 | 63.46 148.24 1.00 | 49.10 87.73 1.00 |

**Results**

Demographics, well-being, job satisfaction and home/work balance
Since there were many background variables, the influence of these background variables on the dependent variables well-being and job satisfaction was tested before testing the separate hypotheses by performing 2 regression analyses of these background variables on well-being and job satisfaction. The results are presented in table 4. Since educational systems were so different in the three countries, the influence of the background variable education was tested for every country separately. Only for The Netherlands did educational level have a weak influence on a variable, namely on job satisfaction. None of the demographics had an effect on mental well-being. Age of the children had an influence on job satisfaction and educational level of The Netherlands had an influence on job satisfaction. Number of years with present company and hours people were supposed to work had an influence on home/work balance.

Table 4. Results of the regression analysis of the background variables on well-being and job-satisfaction. Values of the significant models are given (p≤0.10)

|                | Gender | Age | Number of children | Education levela | Number of years working with present company | Hours expected to work | Hours beyond expected hours to work |
|----------------|--------|-----|--------------------|------------------|---------------------------------------------|------------------------|-------------------------------------|
| Well-being     | β      | T   | β                  | t                | β                                           | t                      | t                                   |
| Job Satisfaction| -      | -   | -                  | -                | -                                           | -                      | -                                   |

| Marital Status | married | cohabiting | single | other |
|----------------|----------|------------|--------|-------|
| Well-being     | β        | t          | β      | t     | β    | t    |
| Job Satisfaction| -      | -          | -      | -     | -    | -    |

| Age of children: | Not applicable (no children) | preschool | Preschool and school | School | School and post school |
|------------------|--------------------------------|-----------|----------------------|--------|------------------------|
| Well-being       | B                               | t         | β                   | t        | β         | t          |                  |
| Job Satisfaction | -.17                            | -1.49*    | -.15                | -1.75**  | -.18      | -1.98**   | -.17 -2.00**   |

*p<0.10; **p<0.05; ***p<0.01

Note: * values of The Netherlands are given. Values of other countries were not significant.

Testing the hypotheses
The correlations between the different factors are shown in table 5. The result of testing the mediating role of home/work balance between workload and well-being is presented in table 6 and was obtained by performing a hierarchic regression analysis of workload, coping and home/work balance on well-being. Coping was added since hypothesis 10 stated that coping was a mediator for the relationships between stressors and well-being. According to Baron and Kenny (1986) a variable has a mediating role if “the variations in levels of the independent variable significantly account for variations in the presumed mediator, variations in the mediator significantly account for variations in the dependent variable”, and when the relationship between the independent and dependent variable increases significantly when the presumed mediator is added in the regression.

Table 5. Correlations between the different factors
Home/work balance was not mediating the relationship of workload and well-being. Though workload explained 38.2% of the variance of home/work balance ($\beta=0.62$, $p<0.05$) and home/work balance explained 2.1% of well-being ($\beta=-0.35$, $p<0.05$), which satisfied the first two conditions set by Baron and Kenny (1986), the relationship between workload and well-being did not significantly decrease after home/work balance was added to the regression analysis. Hypotheses 1a and 1b had to, therefore, be rejected and for further analysis workload and home/work balance were regarded as stressors that both influence well-being. Workload did have a significant negative relationship with well-being. Home/work balance had a weak relationship with well-being when coping was not in the regression.

The results of testing hypothesis 2 through 10 are presented in table 7 and were obtained by performing a hierarchic regression analysis of the stressors, the interaction effects and mediating role of coping on well-being. The interaction terms in the hierarchic regression analysis were obtained by multiplying the standardised score of managerial role and personal responsibility respectively with the score given to the country.

Hypothesis 2, that the stressor ‘poor relationships’ has a negative relationship with well-being, was not rejected at first. Poor relationships did have a significant relationship with well-being when the other stressors were also put in the regression, but when coping was added poor relationships did not have a significant relationship with well-being.

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**Table 6.** The mediating role of home/work balance and coping for workload on well-being

| Variable                  | Step 1 | Step 2 | Step 3 |
|---------------------------|--------|--------|--------|
|                           | $B$    | $\beta$| $\beta$|
| Workload                  | -.35***| -.36***| -.42***|
| Coping                    | .15*** | .14*** |        |
| Home/Work balance         | .09*   |        |        |
| $R^2=.12$                 | $R^2=.14$| $R^2=.15$|
| $\Delta R^2=.02$          |        | $\Delta R^2=.01$|

*p<0.10; **p<0.05; ***p<0.01
Hypothesis 3 which stated that lack of recognition has a negative relationship with well-being was rejected. Lack of recognition did not have a significant relationship with mental well-being.

Hypothesis 4, that a poor organisational climate has a negative relationship with well-being was confirmed. Hypothesis 5, that hassles have a negative relationship with well-being was confirmed. Hypothesis 6, that managerial role has a negative relationship with well-being was not confirmed, managerial role did not have a significant relationship with well-being when the interaction between country and managerial role was added.

Hypothesis 7, which stated that personal responsibility had a negative relationship with well-being, was rejected. Personal responsibility had a positive relationship with well-being. The results for hypothesis 8, which predicted that the country was a moderator for the relationship between managerial role and well-being was confirmed. This means that the relationship between managerial role and well-being was stronger for Romania than for the Netherlands and Great Britain.

### Table 7. Results of the hierarchic regression analysis on well-being

| variable                      | Step 1    | Step 2    | Step 3    |
|-------------------------------|-----------|-----------|-----------|
|                               | B         | β         | β         |
| Workload                      | -.21 ***  | -.14***   | -.15***   |
| Poor relationships            | .09*      | .11**     | .08       |
| Home/work balance             | .09*      | .08*      | .07       |
| Managerial role               | .10**     | .02       | .01       |
| Personal responsibility       | -.19***   | .35***    | .39***    |
| Hassles                       | -.16***   | .17***    | -.16***   |
| Lack of recognition           | -.00      | .02       | .01       |
| Organisation climate          | -.13***   | .14***    | -.13***   |
| Interaction managerial role*country | .12*    | .14**     |           |
| Interaction personal responsibility*country | -.63***   | -.67***   |           |
| Coping                        |           |           | .14***    |
| R²=.19                       |           |           | R²=.23    |
| ∆R²=.04                      |           |           | ∆R²=.02   |

*p<0.10; **p<0.05; ***p<0.01

### Table 8. Results of the hierarchic regression analysis on job satisfaction

| variable                      | Step 1    | Step 2    |
|-------------------------------|-----------|-----------|
|                               | β         | β         |
| Not applicable                | -.11      | -.11      |
| Preschool                     | -.07      | -.07      |
| Preschool and school          | -.10      | -.10      |
| School                        | -.13*     | -.13*     |
| Well-being                    |           | .02       |
| R²=.01                        |           | R²=.01    |
| ∆R²=.00                      |           |           |

*p<0.10; **p<0.05; ***p<0.01

Hypothesis 9, which stated that the country was moderator for the relationship between personal responsibility and well-being, was confirmed. This means that the positive relationship between personal responsibility and well-being was weaker for Romania than for The Netherlands and Great Britain.

Hypothesis 10 stated that coping was a mediator for the relationship between the stressors and well-being. This hypothesis was partly confirmed, coping was a mediator for
some stressors. When coping was added to the regression analysis, the stressors poor relationships and home/work balance did not have a significant relationship.

To test if well-being had a relationship with job satisfaction a hierarchical regression of age of the children and well-being on job satisfaction was performed. Since educational level was only significant at a 10% level in one country, this background variable was excluded. The result of this hierarchic regression analysis is presented in table 8. Total well-being was not related to job satisfaction, which rejected hypothesis 11.

The results of testing the hypotheses are also shown in figure 2.

**Figure 2.** The model resulting from this study

**Discussion**

The purpose of this study was to examine the relationships between stressors, well-being and job satisfaction and the influence of coping and the differences between Great Britain, Romania and The Netherlands for some of these relationships. Besides some demographic questions, the OSI-2 was distributed to employees of different companies in three different countries. For this study, only some parts of the OSI-2 were used, namely the parts that measure stressors, well-being, job satisfaction and coping. For explaining the influence that the different cultures of the countries can have on the relationships the cultural dimension of Hofstede (2001) were used. Though the reliability of the sample as a whole was acceptable, the reliability of one stressor in Great Britain and four stressors in Romania was not.

Some of the stressors, namely workload, hassles and organisation climate, had a negative relationship with well-being, as predicted. This means that when people experience these sources of pressure well-being will decrease. Coping was a mediator for two stressors, namely poor relationships and home/work balance. This means that the relationship of poor relationships and home/work balance with well-being depend on coping.
Country was a moderator for the relationship between managerial role and well-being, and for personal responsibility and well-being. This means that the positive relationship between personal responsibility and well-being is stronger for Great Britain and the Netherlands than for Romania. This result is can be explained by using the Uncertainty Avoidance dimension. Romania has a higher ranking on the uncertainty dimension than the Netherlands and than Great Britain, personal responsibility therefore should be experienced as something negative. The relationship between personal responsibility and well-being is indeed less positive than in the Netherlands and in Great Britain. For managerial role it means that the weak positive relationship between managerial role and well-being is stronger for Romania than for the Netherlands and Great Britain. This suggests that pressure of managerial role increases well-being in Romania more than in the Netherlands and in Great Britain. This can be explained by the dimension power distance. Romania has a higher ranking on power distance, followed by the Netherlands and Great Britain. Being a manager is experienced therefore as less stressful in Romania than in The Netherlands and Great Britain.

Though some of the predictions made on base of past research were confirmed, the study had some unexpected results. The stressor lack of recognition, for instance, did not have a relationship with well-being. Personal responsibility had a positive relationship with well-being. So even though personal responsibility can be stressful, employees experience it was positive for their well-being, which could be explained by theories about job decision latitude. Job decision latitude describes if employees are allowed to make decisions about how work is done (Keeley & Harcourt, 2001). Job decision latitude is related to personal responsibility. But unlike the stressor it has a positive relationship with positive health (Sparks, Faragher & Cooper, 2001). The relationship between personal responsibility and well-being did depend on the country.

Managerial role did not have a relationship with well-being when the interaction between managerial role and country was added. Country was a moderator for this relationship. Well-being did not have a relationship with job satisfaction.

Besides the results of this research it also has some limitations. For Romania for instance, translation procedure is unknown. Translations can always cause problems, especially when asked about emotions or state of mind. Though the kind of organisations in Great Britain and Romania were unknown, of the 3 organisations that participated in the Netherlands, one was a non-profit, state organisation, one was a profit-seeking international company and one was a profit-seeking national company. It is unknown if the organisations of the 3 countries were similar or representative for organisations in their country. The representative nature of the participating employees for the whole organisation is also unknown. It is possible that specifically employees experiencing specific problems returned the questionnaire and employees who experienced no problems did not.

The results show that certain stressors have a significant relationship with well-being which can be useful information for organisations who want to keep the well-being and therefore job satisfaction of their employees as high as possible. Research has shown that high well-being is related with high performance (Wright & Cropanzano, 2000). Since there were differences between the three countries this study also indicates that the relationships between sources of pressure and well-being are not the same for every country and models can not be generalised to other countries and cultures without doing research in different countries.

Further research in more countries is necessary to study if culture is a moderator between the sources of pressure and well-being. For the Netherlands a sample is necessary which includes more managers. Further research is also necessary for explaining the unexpected results in this study.

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