

The effect of employee, family and firm support on feelings of burnout and job satisfaction: a multi actor approach

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Abstract

What kind of support do people have to meet current work and family demands and how do they affect experiences of quality of life? Within this paper I will focus on the experiences of Dutch workers with respect to burnout and satisfaction, by concentrating not only on the role of direct workplace support but also by considering support in the family and support provided by the employer. The general research question is: to what extent do employee support, family support and employer support explain levels of work related burnout and job satisfaction? Hypotheses will be tested using the Time Competition Survey (2003). Data were collected using a multi-stage sample of 1114 employees from 30 Dutch firms. Results show that employee support is the most important source of support for job satisfaction and burnout; Family support has a negative relation to feelings of burnout, and firm support has a positive relation to job satisfaction.

Introduction

In many European countries living standards over the last few decades increased and in general people report that they are (highly) satisfied with their jobs. However, scholars also note that work is becoming more demanding and intense and that people experience feelings of time pressure and burnout (Green, 2006; Houtman, Smulders & van den Berg, 2006).

Green (2006) shows that many workers have to work more intensely, experience greater mental strain, and experience more often job insecurity and less job control. For a long time attention was focused mainly on the impact of work demands on various negative health outcomes such as burnout and illnesses (e.g. Schaufeli & Bakker, 2004). Research has shown, for instance, that work demands like work pressure, the requirement of working long hours and job insecurity are sources of stress with various negative psychological and physical health outcomes (e.g. Green, 2006; van Echtelt 2007; Ferrie, 2001). More recently attention has shifted to the role of work and family support. Support would increase levels of job satisfaction and decrease burnout (Bakker, Emmerik & Euwema, 2006).

In studying the importance of the workplace on job satisfaction and burnout, studies mainly focus on the influence of support characteristics reported by the employees themselves. There are hardly any studies on the influence of support measures reported by the supervisors on employee outcomes. This is mainly due to the empirical design of many of these studies. First, often a representative sample of individual employees is used who are not employed by the same organization. They report on work characteristics and personal outcomes. Second, many and especially psychological studies are situated in one organization, so that it is not possible to test the influence of characteristics reported by the employer. In this study we focus on the influence of both employer and employee reported characteristics on burnout and job satisfaction, and test what exerts the most influence.

Moreover, in earlier studies there has been relatively little attention to the relative importance of different sources of support. A majority of empirical studies include one or two sources of support but seldom study different sources of support in one design (Aycan & Eskin, 2005). Traditionally, stress and wellbeing research tend to focus on job autonomy and social relations as sources of support (e.g. Karasek & Theorell, 1990). In newer studies also attention is paid to collegial and supervisor support or family support. In this contribution we pay attention to different kinds of support both at the employee and employer level.

So summarizing the research question of this paper is to what extent do individual level employee support, family support and firm support explain levels of work related burnout and job satisfaction, and do they buffer the influence of work demands thereby?

Social Support

The nature, sources and effect of social support have received considerable attention from researchers in the social and behavioral sciences (Ducharme, 2001). The multidisciplinary

attention has led to numerous and varied definitions and measures of social support. Weiss (1974) identified several kinds of support “provisions”: advice or guidance, reliable tangible assistance, caring, social integration (i.e., companionship), and reassurance of worth (i.e., esteem support). This classification scheme has been used successfully by Cutrona and her colleagues (e.g., Cutrona, Cole, Colangelo, Assouline, & Russell, 1994). Barrera (e.g., Barrera & Ainlay, 1983) proposed a similar set of five dimensions and found four of them emerging in factor analyses. This set encompasses tangible support (both material aid and behavioral acts), directive guidance (i.e., advice or information), nondirective support (emotional support), and positive social interaction (i.e., companionship or network support). Several researchers (e.g., Carver, Scheier, & Weintraub, 1989) have suggested collapsing the various sets of support dimensions into two overarching categories: emotional support and instrumental support. The intuitive appeal of these dimensions is their compatibility with the two dimensions of coping (emotion- and problem-focused coping) suggested by Folkman and Lazarus (1980) in the domain of personal resources for coping. Emotional support can be usefully defined as non-directive support in contrast to the more tangible and more directive function of instrumental support. Burke (2006) defines instrumental support as “tangible support one receives directly from others” (Burke 2006: 254), for example aid in time or money and emotional support as the “individual’s perception of the presence of caring others with whom they can discuss their experiences and feelings” (2006: 254), for example co-workers or family members you can trust and talk to. In this contribution focus is on emotional and instrumental sources of support at the employee, family and firm level.

Using the demand and resource approach a main effect of support can be distinguished (Schaufeli & Baker 2004; Demerouti et al. 2001). House (1981) argues that support can directly enhance health and well-being, regardless of levels of stress. The study of Schaufeli & Bakker (2004) supports this idea by showing a direct negative effect of job resources to burnout and a direct positive effect on job engagement. Support resources on the workplace and family level are assumed to have a positive impact on job satisfaction and a negative effect on burnout. This assumption of a main effect of support proposes that everybody benefits from high levels of support (House 1981).

The influence of employee support

As instrumental support factors based on the demand-control-support model of Karasek and Theorell (1990), many researchers include job autonomy as a relevant resource for a person’s

well being. Traditionally, job autonomy refers to task autonomy, i.e. the freedom to decide how and when the work is done (Schaufeli & Bakker, 2004). Recently with the introduction of flexible working hours, variation in work schedules and teleworking, time and spatial autonomy are added as important dimensions (Kossek et al., 2005). Valcour (2006) found a direct effect of job autonomy on the satisfaction with work-life balance. According to Saari and Judge (2004) job autonomy is the most relevant variable that predicts job satisfaction.

In addition, social relations with co-workers and supervisor influences job satisfaction and burnout (Schaufeli & Bakker, 2004; Bakker et al., 2006). When employees have to work hard but feel supported by co-workers and their supervisor, job satisfaction is likely to increase. Good social relations at work offer employees additional energy that can contribute to overall life satisfaction. The rise of team working, in particular in the service sector (Steijn, 2001), has highlighted the impact of social relations at work and many employers have invested in training to help people work together more effectively and to accomplish shared goals. Consequently, this may lead to more emotional support between workers, which in turn positively affect life satisfaction.

The influence of family support

Previous research points at the interrelatedness of the family and work domains, with family factors spilling over to work and vice versa (Van der Lippe & Peters, 2007). It is therefore likely that factors beyond the workplace influence helping behavior at work, in addition to work factors. The spouse has been considered as the primary source of support in the family domain (Carlson & Perrewé, 1999). The partner's emotional support, such as love and understanding, has been found to contribute to employee's well-being (Van Daalen, Willemsen & Sanders, 2006). The partner may also perform part of the household tasks, thereby diminishing the employee's family burden (Friedman & Greenhaus, 2000; Hill, 2005). Furthermore, the partner may give work-related advice and help develop skills, furthering the employee's work outcomes (Ruderman et al., 2002). Support with household duties may be also provided by the domestic help which is perceived as a clear source of support (De Ruijter, 2007).

Firm support

Support is also provided by the organization, and not only by the direct environment of the employee. Although the theory on emotional and instrumental support of other employees is

elaborate, the mechanisms at the organizational level are hardly described in the literature. We assume that the same mechanisms as for the employee level are valid for the organizational level support. An emotional source of support includes the feedback provided by the organization to its employees. As collegial support, this form of support takes place via explicit contact moments. Another form of support is the autonomy provided by the organization to employees.

In addition to these prominent types of support, support for finding a work-life balance is becoming increasingly relevant for many workers given the increasing labor market participation of women and rise of dual-earner families. Therefore, studies increasingly include organizational work-life balance support when studying employees' wellbeing. Existing studies tend to focus on three types of support resources: family friendly organizational culture, supportive supervisory practices, and available work-family benefits and policies (e.g. den Dulk, 2001; Warren et al. 1995; Thompson et al, 1999). Benefits and arrangements like telecommuting, flex-time, part-time work, job sharing, employer supported childcare and care of the elderly, career break, enhanced leave arrangements and other family-friendly organizational policies can be seen as instrumental support (Shaffer 2005; Frone 2003). A family friendly organizational culture can be seen as a consequence of both. "The classification of an organization's culture as family friendly implies that its overarching philosophy or belief structure is sensitive to the family needs of its employees and is supportive of employees who are combining paid work and family roles" (Warren et al. 1995: 163).

The buffering effects of support on work demands

In addition, the resources and demand approach suggests that resources also have a buffering impact on demands (Demerouti et al. 2001; Schaufeli & Bakker 2004). Demands at work can comprise requirements of long hours, shift work, frequent travel, and a high work effort. Demands in private live are, for instance, care responsibilities for older relatives and children (Moen & Chermack 2005). These demands do not have to be necessarily negative when the existing resources are adequate to meet these demands (Moen & Chermack 2005; Schaufeli & Bakker 2004). "Social support could mitigate or buffer the effect of potentially stressful objective situations (such as a boring job, heavy workloads, unemployment) by causing people initially to perceive the situation as less threatening or stressful..." (House 1981: 37-38). Schaufeli & Bakker (2004) expected in their study a negative relationship between

demands and resources as job resources potentially reduce the negative impact of job demands. That is to say, that also a buffering or moderating effect of support on job satisfaction can be assumed based on the demands and resource approach. The buffering effect hypothesis suggests, in contrast to the direct effect hypothesis, that support will be of value to people who experience a high level of demands, but is of less value for people without, or with little amounts of demands (House 1981). Within this paper we assume that support has both kinds of effects. The results of Carson & Perrewé (1999) suggest, for instance, that individuals who develop, strong social support networks at work and at home may actually perceive fewer stressors in their work and family life. This supports the idea of social support as a protective function.

Data

The data are from the *Time Competition* survey held in 2003 among Dutch employees. Data were collected using a multi-stage sample of employees from 30 Dutch firms. This survey was designed to study the causes of and solutions to work-home interference (Van der Lippe & Glebbeek 2003). Because the data collection was aimed to understand time greediness of workplaces, knowledge-based organizations were oversampled, since we expected these dynamics to occur especially in these firms.

Within the 30 organizations, the percentage of those in the service sector is slightly higher than that in the Dutch economy; the number of industries is representative for the Netherlands, but agriculture is underrepresented. Large organizations are also oversampled. Five organizations have 100 employees or less, two of these have less than 50. In the 30 organizations, employees of 89 function groups are interviewed. The information on the function group was obtained via the responsible managers through a written questionnaire. Home interviews were conducted with 1,114 employees and, if applicable, their partners, at a response rate of 29%. In the Netherlands, response rates for interviews at home vary from 25% to 45% in national probability samples (Kalmijn, Bernasco & Weesie 1999). The uniqueness of the dataset compensates for the response rate of 29%, which seems low compared to international standards but reasonable when considering Dutch standards (Kalmijn, Bernasco & Weesie 1999). The response rate of nearly 30% also seems reasonable, certainly if the two-step contact procedure is taken into account. Employees were first called at work via telephone number lists provided by the organizations. They were requested to

participate in the survey and, if willing to do so, were asked to give their home address. This approach was necessary because organizations have to protect the privacy of their employees and therefore cannot provide home addresses. Of the 3,970 employees contacted, 39% agreed to participate. Each employee was subsequently contacted at home to make an appointment for the home interview. Between the two contact moments, employees in couple households had to ask their partner to participate as well. Of all the employees contacted at home, 28% was not interviewed in the end, usually because the partner had refused to cooperate. For the present analyses we make use of 1059 employees, due to missing values on the dependent variables. Analyses show that households not willing to cooperate hardly differ on several background characteristics from those who were willing to join the research. Background characteristics analysed include gender of the employee, educational level, working hours and family status.

Measures

Burn out and job satisfaction

We operationalized feelings of *work-related burnout* as emotional exhaustion as this is considered the central, dominant and most significant dimension of burnout (Burke & Richardsen, 1993). *Emotional exhaustion* was assessed with the Dutch version (Schaufeli & Van Dierendonk, 1993) of the Maslach Burnout Inventory – general survey (MBI_GS; Schaufeli, Leiter, Maslach & Jackson, 1996). The MBI is the most frequently used self-report measure of work-related burnout and has often been evaluated as a valid and reliable measurement instrument of burnout (e.g. Malach-Pines, 2005). Emotional exhaustion was measured with three items: ‘I feel used up at the end of the working day’, ‘I feel mentally exhausted because of my job’ and ‘I feel tired when I get up on a working day’ (answer categories from 1 = never to 7 = daily). A principal component analyses extracted one single component with a total Eigenvalue of 2.369 and the reliability of the scale was high (Cronbach’s alpha = .86).

Job satisfaction was asked with items often used in social-psychological research (Judge, Locke, Durham & Kluger, 1998). It was measured with the following 5 items: 1. I learn constantly new things in my job, 2. I am getting better all the times in my job, 3. My work is often boring, 4. My work is my hobby, 5. After a while you do not like your job anymore (answering categories from 1=do not agree at all to 7=totally agree, and item 3 and 5 reverse coding). The reliability of this scale is moderate with .68.

Support

Support is measured both at the individual employee level, the family level and at the firm level. At the employee level we do have instrumental and emotional support characteristics. *Job autonomy*, as an instrumental support factor was measured on a Likert scale consisting of three items (Cronbach's $\alpha = .69$; answer categories from 1 = totally disagree to 5 = totally agree), such as 'I can plan my tasks my self' and 'I'm involved in decision making about my job'. Emotional support consists of supervisor support and collegial support. *Supervisor support* was measured with a scale consisting of five items (Cronbach's $\alpha = .89$; answer categories from 1 = totally disagree to 5 = totally agree). Sample items of supervisor support are 'I feel appreciated by my supervisor' and 'my supervisor shows understanding if I have problems'. Collegial support was measure with a scale consisting of three items (Cronbach's $\alpha = .80$; answer categories 1=never to 5 always). Sample items are 1. Can you ask your colleagues for help when necessary?, and 2. Are you valued by your colleagues?

Family support was measured firstly via the presence of *a partner in the household* (1=yes, and 0=no). Second, *the hours the partner spent on domestic duties* were included using the time diary method. These domestic duties include cooking, washing, cleaning and tidying up and doing the groceries. Note that instead of absolute hours of housework we also included the relative share of the partner in housework. This did not alter the results of the analyses. Third, the presence of a domestic help was included as an instrumental family support factor (1=yes, 0=no).

Firm support was measured at the organizational level, and asked via the employer. In this way the measures were valid for all employees in that particular function group. First, the actual and explicit feedback moments provided from the supervisor to the employees, asked via the employer (answering categories from 1= less than monthly to 6= daily). Autonomy as provided by the firm was measured by four items on a five-point scale. Autonomy refers to employees' freedom with respect to pace, planning, order and style ($\alpha = .83$). Third, work-family support is measured whether employees are flexible in taking a day off with (1) a sick child at home, (2) a free school day of the child, and (3) the care for a family relative (1=yes, 0=no).

Control variables

Job demands were measured by paid working hours, work pressure, deadlines. Paid working time was measured per week and included overtime, work pressure was measured with a scale consisting of five items (Cronbach's $\alpha = .85$; answer categories from 1 = totally disagree to 5 = totally agree). A sample item of work pressure is 'I have to work hard'. How often do you have an important deadline (answer categories from 1=less than every month to 5=more than twice a week). Other control variables included age, education and gender. Age was measured in years, and gender is a dummy (with 1=female). Education concerned the highest finished education level (11 categories, varying from 1 = no preliminary education to 11 = doctorate level). Descriptives of all variables are presented in Table 1.

< Table 1 about here >

Methods

Because of the multilevel nature of our data (employees i nested within workplaces j), I estimate a series of hierarchical linear models (see Snijders & Bosker, 1999). Common analytic strategies (such as appending workplace characteristics to individual-level records and treating these as independent observations) obscure the fact that employees are nested within a workplace context. One major advantage of multilevel models is that they recognize the existence of variation in the outcome variable at both the individual and the workplace level. The analysis has been performed stepwise; all analyses have been run for work satisfaction and for burnout. First an empty model was tested, second the control variables and work demands are added. Third, the employee support factors were added, and fourth family support was added. In the fifth step firm support was added to the model. Moreover, as burnout and job satisfaction are clearly related to each other, to the explanation of satisfaction burnout was added and to the explanation of burnout work satisfaction. The following equation is used to understand how much variance is present at the organizational level, implying how much job satisfaction and burnout is determined at the organizational level, and thereby is $\sigma^2_{\text{employee level}}$ the variance at the employee level en $\sigma^2_{\text{firm level}}$ at the firm level: $\sigma^2_{\text{firm level}} / (\sigma^2_{\text{firm level}} + \sigma^2_{\text{employee level}})$.

The $-2 \log$ likelihood or the deviance per model is given; this measure show how well the model fits the data. In general it is said that the lower $-2 \log$ likelihood, the better the model fits the data (Hox 2002).

Overall, as Table 2 shows, the correlations between the independent variables were not very high and ranged between .01 and .40. The correlation between the independent and dependent variables ranged between .01 and .32. These figures did not cause problems in the analyses.

< Table 2 about here >

Results

The results of the multilevel analyses for the explanation of job satisfaction are presented in Table 3. Model 1 in Table 3 shows that 10% of the variance in job satisfaction was caused by the organization where employees have their job. This implies that job satisfaction was not only caused by individual employee characteristics but also by their organization. If we compare this figure with the figure of the other models we do see that both the variance at the employee level and at the organizational became smaller once variables were taken into account. In model 6 where all variables were included in the analyses, the variance at the organizational level was about 6% and only significant at the 10%-level. Comparing the different models, it seemed as if the employee support factor did explain most of the individual variance (comparison of Model 3 to Model 2), and that the variance at the organizational level was best explained by introducing organizational level variables (comparison of Model 6 to Model 5). Comparing all models, Model 6 fitted best to the data and we will discuss the coefficients of this model in more detail.

< Table 3 about here >

The work demands appeared to be significantly related to job satisfaction but not in the expected direction. Working hours had a positive effect on job satisfaction instead of the expected negative effect. Also when we included formal working hours and overtime hours, the positive effect of overtime hours remained significant. Unexpectedly work pressure also had a positive effect on job satisfaction: the more employees felt pressured by their work, the more satisfied they were.

The three indicators for employee support all had a strong significant effect on job satisfaction. More autonomy in the job, more supervisory and collegial support were all related to more job satisfaction. Family support did not have any relation with job satisfaction as we can see in Model 6. The included firm support variables did have a strong relation with job satisfaction. More feedback moments between the employee and the employer had a positive relation with job satisfaction and more autonomy provided by the organization exerted also a positive influence. Thus the instrumental variable autonomy at both the employee level and the organizational worked in the same direction, and the same was true for emotional support perceived by the employee and by the employer. Work family support had no impact and also burnout had no effect on job satisfaction. The control variables age, education and gender were not related to job satisfaction.

In Table 4 the results are provided of the explanation of burnout. In model 1 8% of the variance in burnout seemed to be caused by the organization the employees work in. This was less than for job satisfaction. Already the inclusion of job demands in model 2 showed that all variance of burnout at the organizational level was explained. The CS covariance was not significant anymore. A comparison of the 6 models of burnout showed that of the support factors, inclusion of the employee support factors explained the variance in burnout at the individual employee level the best, and this seemed to be true for the variance at the organizational level as well. Inclusion of job satisfaction seemed to yield the best fit to the data (Model 6), and therefore we will discuss the coefficients of this last model.

<Table 4 about here >

As expected job demands all had a negative relation to burnout: working long hours, having many deadlines and perceiving a high work pressure increased feelings of burnout. Employee support decreased the feelings of burnout, and especially perceiving autonomy in the job and collegial support. Family support had a significant relation to burnout as well. Having a partner decreased burnout substantially and a domestic help as an instrumental source of support also lowered feelings of burnout. Firm level support did not have an influence on burnout though. Finally job satisfaction yielded a negative relation with burnout: having more job satisfaction decreased feelings of burnout.

Next to expecting direct effects of support factors, we also formulated a hypothesis about the buffering effect of support on demands. Including support factors in the models for

both job satisfaction and burnout did not change the effect of job demands. We also included several interaction effects between job demands and all kind of support factors. Some of them were significant, such as the negative interaction effect of working hours and autonomy on burnout, implying that with high working hours autonomy was needed to decrease feelings of burnout. However, many of the other interaction effects did not seem to be significant, so in general we cannot say that support factors buffers the influence of demand factors on job satisfaction and burnout.

Conclusion

In this paper we have shown that support factors are important for job satisfaction and burnout. Not only support factors at the employee level are important but also family support of firm support factors. However, our main conclusion is that employee support is the most important positive support factor for both job satisfaction and burnout. Having more autonomy in the job, perceiving supervisory and collegial support is related to more job satisfaction and less burnout.

Next to employee support, family support and firm support are important sources of support for an employee as well. Having instrumental and emotional support factors at home, such as a partner and a domestic help is related to less burnout of the employee. Probably, family support can help to cope with the work situation. Having explicit feedback moments and autonomy at the organization is related to more job satisfaction.

Do support mechanisms for burnout and job satisfaction work in the same way? To some extent they do: employee support has a positive effect for both job satisfaction and burnout. However, job satisfaction is influenced more by support factors at the firm level, whereas burnout is influenced more by the family level. It could be the case that burnout is a more painful emotion, for which the inner circle of the family, the supportive function a family has, is needed. Job satisfaction is of a positive nature, and therefore maybe more influenced by the more formal organizational level.

Although most of the variance of job satisfaction and burnout takes place at the individual employee level, we have shown that there is variance at the organizational level as well. Employees differ in job satisfaction, not only because of their own individual

circumstances but also because of the organization they work for. One can conclude that in some organization employees appear to be more satisfied with their jobs than in others.

Unexpectedly higher work demands lead to more job satisfaction as well. Working more hours and feeling more pressure are related to job satisfaction. We would like to recall that this is a sample with an overrepresentation of higher educated. It could well be the case that exactly those higher educated feel more satisfied when they are busy in their job and feel worthwhile,

It is good to note that there is a discussion in the literature on the necessity of studying job satisfaction and burnout. According to some these results do tell us less about the factual developments at the workplace, and others note that job satisfaction and burnout are subjective measures. We recommend to study objective measures in future studies such as productivity at the workplace, although we acknowledge that it will be difficult to come up with the right objective measure. Moreover, the results are based on a cross sectional sample, and a longitudinal design would be preferable to disentangle possible causal interference.

References

- Ackroyd, S., Batt, R., Thompson, P. & Tolbert, P.S. (eds.) (2005). *The Oxford Handbook of Work and Organizations*. Oxford: Oxford University Press.
- Aycan, Z. & M. Eskin (2005). Relative contributions of childcare, spousal support, and organizational support in reducing work-family conflict for men and women: the case of Turkey. *Sex Roles*, Vol. 53, No. 7/8, p. 453-471.
- Bakker, A.B., H. van Emmerik & M.C. Euwema. (2006). Crossover of burnout and engagement in work teams. *Work and Occupations*, 33,464-489.
- Burke, R.J., & Richardsen, A.M. (1993). Psychological burnout in organizations. In: R.T. Golembiewski (ed.), *Handbook of Organizational Behavior*. New York: Marcel Dekker, pp. 263-299.
- Burke, R. J. (2006). Organizational culture: a key to success of work-life integration. In: F. Jones, et al *Work-Life Balance. A Psychological Perspective*. Psychology Press: New York pp. 235-260.
- Carlson, D. S., Kacmar, M. K., Wayne, J. H., & Grzywacz, J. G. (2006). Measuring the positive side of the work-family interface: Development and validation of a work-family enrichment scale. *Journal of Vocational Behavior*, 68, 131-164.
- Carlson; Perrewe (1999). The role of social support in the stressor-strain relationship: an examination of work-family conflict. *Journal of Management*, Vol. 25, No. 4. pp. 513-40.
- Demerouti, E., Bakker, A.B., Nachreiner, F., Schaufeli, W.B. (2001) "The job demands resources model of burnout". *Journal of applied psychology*, 86, 499-512.
- Dulk, L. den & Peper, B. (2007). Working Parents' use of work-life policies. *Sociologia*. Vol. 53. pp. 51-70.
- Echtelt, P. van (2007). Time-greedy employment relationships. Four studies on the time claims of Post-Fordist work. Enschede: Gildeprint.
- Ferrei, J.E. (2001). Is job insecurity harmful to health? *Journal of the Royal Society of Medicine*, 94, pp. 71-76.
- Friedman, S.D., & Greenhaus, J.H. (2000). *Work and family: Allies or enemies? What happens when business professionals confront life choices*. New York, NY: Oxford University Press.

- Frone, M. R. (2003). Work-Family Balance. In: J.C. Quick and LE Tetrick: *Handbook of occupational health psychology*, pp. 143-162.
- Frone, M. R., Russell, M., & Cooper, M. L. (1992). Antecedents and outcomes of work-family conflict: Testing a model of the work-family interface. *Journal of Applied Psychology*, 77, 65-78.
- Frone, M. R., Yardley, J. K., & Markel, K. S. (1997). Developing and testing an integrative model of the work-family interface. *Journal of Vocational Behavior*, 50, 145-167.
- Green, F. (2006). *Demanding Work. The paradox of job quality in the affluent economy*. Princeton University Press: Princeton and Oxford.
- Greenhaus, J., H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *Academy of Management Review*, 10(1), 76-88.
- Greenhaus, J. H.; Powell, G. N. (2006). When work and family are allies: a theory of work-family enrichment. *Academy of Management Review*. Vol. 31. No. 1. pp. 72-92.
- Hill, E.J. 2005. Work family facilitation and conflict, working fathers and mothers, work family stressors and support. *Journal of Family Issues*, 26: 793-819.
- Houtman, I., Smulders, P. & Berg, R. van den (2006). Werkdruk in Europa: omvang, ontwikkelingen en verklaringen. *Tijdschrift voor Arbeidsvraagstukken*, 22/1.
- Kalmijn, M., W. Bernasco & J. Weesie (1999). Huwelijks- en samenwoonrelaties in Nederland. De organisatie van afhankelijkheid. Assen: Van Gorcum.
- Karasek, R. & Theorell, T. (1990). Health work-stress, productivity and the reconstruction of working life. New York: Basic Books.
- Kossek, E.E., B.A. Lautsch & S.C. Eaton (2005). Telecommuting, control, and boundary management: correlates of policy use and practice, job control, and work-family effectiveness. *Journal of Vocational Behavior*, 68, p. 347-367.
- Malach-Pines, A. (2005). The burnout measure: short version (BMS). *International Journal of Stress Management*, 34, 410-476.
- Moen, P.; Chermack, K. (2005). Gender Disparities in Health: Strategic Selection, Careers, and Cycles of Control. *Journal of Gerontology*. Vol. 60B. Pp. 99-108.
- Pavot, W. & E. Diener (1993). Review of the Satisfaction with Life Scale. *Psychological Assessment*, Vol. 5/2, p. 164-172.
- Ruderman, M.N., Ohlott, P.J., Panzer, K. & King, S.N. (2002). Benefits of multiple roles for managerial women. *Academy of Management Journal*, 45: 369-386.

- Saari, L.M. & Judge, T.A. (2004). Employee attitudes and job satisfaction. *Human Resource Management*, 43, p. 395-407.
- Shaffer, M. A., Joplin, J. R. W., Francesco, A. M. & Lau, T. (2005), Easing the Pain: A Cross-Cultural Study of Support Resources and Their Influence on Work-Family Conflict. In: S. A. Y. Poelmans (ed.), *Work and Family. An International Research Perspective*. LEA: New Jersey. pp. 319-342.
- Schaufeli, W.B. & Bakker, A.B. (2004). Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study. *Journal of Organizational Behavior*, 25, p. 293-315.
- Schaufeli, W.B., Leiter, M.P., Maslach, C., & Jackson, S.E. (1996). The Maslach Burnout Inventory – GS. In C. Maslach, S.E. Jackson, & M.P. Leiter (Eds.), *Maslach Burnout Inventory manual*. Palo Alto, CA: Consulting Psychologists Press. Pp. 22-26.
- Schyns, P. (2003). Income and life satisfaction. A cross-national and longitudinal study. Eburon: Delft.
- Snijders, T. & R. Bosker (1999). Multilevel analysis: an introduction to basic and advanced multilevel modelling. London: Sage.
- Steijn, B. (2001). *Werken in de informatiesamenleving*. Assen: van Gorcum.
- Sverke et al. (2004). Job Insecurity and Union Membership. European Unions in the Wake of Flexible Production. Brussels: P.I.E.- Peter Lang.
- Thompson, C. A., Beauvais, L. L. & Lyness, K. S. (1999). When work-family benefits are not enough : The influence of work-family culture on benefit utilization, organizational attachment, and work-family conflict. *Journal of Vocational Behavior*. Vol. 54. pp. 392-415.
- Valcour (2006). Work Hours and Satisfaction with Work-family Balance: The Moderating Effects of Control and Gender. Paper presented at the Academy of Management, August 14, 2006, Atlanta, US.
- Van Daalen, G., Willemsen, T.M. & Sanders, K. (2006). Reducing work-family conflict through different sources of social support. *Journal of Vocational Behavior*, 69, 462-476.
- Van der Lippe, T. & P. Peters (2007). *Competing claims between work and family life*. Edward Elgar.
- Van der Lippe, T. & A. Glebbeek (2003). Time competition survey. ICS, Utrecht University/ University of Groningen.

Voydanoff, P. (2004). The effects of work demands and resources on work-to-family conflict and facilitation. *Journal of Marriage and Family*, 66, 398-412.

Voydanoff, P. (2004). Implications of work and community demands and resources for work-to-family conflict and facilitation. *Journal of Occupational Health Psychology*, 9(4), 275-285.

Table 1. Means and standard deviations of the variables

	Means	Standard deviation
Satisfaction	17.92	2.91
Burnout	10.01	4.30
<i>Controls</i>		
Age	40.89	9.09
Education	7.99	2.21
Female	0.47	0.50
<i>Work demands</i>		
Working hours	36.87	9.52
Work pressure	9.28	2.55
Deadline	3.00	1.36
<i>Employee support</i>		
Perceived Autonomy	11.77	2.34
Supervisory support	18.36	3.59
Collegial support	11.61	3.67
<i>Family support</i>		
Having a partner	0.74	0.44
Domestic hours partner	16.87	14.69
Domestic help	0.27	0.45
<i>Firm support</i>		
Feedback moments	3.08	1.54
Autonomy	13.29	3.36
Work-family support	0.61	0.92
Number of respondents	1059	

Source: Time Competition 2003

Table 2. Correlation matrix

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 Satisfaction	1.00															
2 Burnout	-.128	1.000														
3 Age	.007	-.125	1.000													
4 Education	.078	.111	-.140	1.000												
5 Female	-.043	.017	-.061	-.089	1.000											
6 Working hours	.174	.131	-.110	.244	-.457	1.000										
7 Work pressure	.064	.324	-.081	.169	.012	.207	1.000									
8 Deadline	.018	.156	-.031	.142	-.078	.172	.326	1.000								
9 Perceived Autonomy	.253	-.128	.051	.145	-.141	.225	.063	.017	1.000							
10 Supervisory support	.269	-.109	-.006	-.039	.091	.001	-.080	-.062	.211	1.000						
11 Collegial support	.218	-.179	-.056	-.081	.007	-.033	-.129	-.034	.162	.345	1.000					
12 Having a partner	.004	-.073	.119	.004	-.140	-.022	-.011	.028	.034	-.009	-.028	1.000				
13 Domestic hours partner	.015	-.038	.222	-.065	-.364	.127	-.018	.059	.016	-.050	-.034	.690	1.000			
14 Domestic help	.026	-.071	.181	.302	.047	.063	.123	.090	.109	-.002	-.033	.123	.069	1.000		
15 Feedback moments	.017	-.022	-.006	-.310	-.037	.005	-.048	-.098	-.073	-.041	.036	-.023	.061	-.126	1.000	
16 Autonomy	.065	.002	.080	.289	-.024	.086	.044	.053	.108	-.009	-.079	.074	.020	.175	-.302	1.000

Table 3 Multi level analysis to explain job satisfaction of Dutch employees, nonstandardised coefficients

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Intercept		14.623**	7.032**	7.228**	5.932**	6.513
<i>Controls</i>						
Age	.020	.021	.025+	.025+	.022	
Education	.014	.041	.080	.041	.053	
Female	-.051	-.012	-.132	-.225	-.163	
<i>Work demands</i>						
Working hours	.066**	.049**	.045**	.041**	.042**	
Work pressure.	.088+	.108*	.108*	.107*	.130*	
Deadline	-.133	-.109	-.114	-.084	-.067	
<i>Employee support</i>						
Perceived Autonomy		.202**	.174**	.174**	.164**	
Supervisory support		.167**	.147**	.141**	.140**	
Collegial support		.147**	.176**	.168**	.156**	
<i>Family support</i>						
Having a partner			.144	.124	.049	
Domestic hours partner			.000	-.003	-.002	
Domestic help			-.238	-.206	-.248	
<i>Firm support</i>						
Feedback moments				.197+	.203+	
Autonomy				.102*	.099*	
Work-family support				.030	.030	
Burnout						-.052+
CS Diagonal Offset	7.76**	7.81**	6.89**	6.90**	6.92**	6.91**
CS Covariance	.76**	.68*	0.70*	0.70*	0.53+	0.49+
-2 Log Likelihood	5231.28	2839.01	2771.45	2627.03	2553.71	2467.30

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

Source: Time Competition 2003

Table 4 Multi level analysis to explain burnout of Dutch employees, nonstandardised coefficients

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Intercept		5.915**	11.72**	10.89**	10.91**	11.543**
<i>Controls</i>						
Age		-.068**	-.071**	-.057**	-.054**	-.053**
Education		.025	.006	.051	.081	.103
Female		.755+	.650	1.431**	1.558**	1.595**
<i>Work demands</i>						
Working hours		.027	.039**	.032	.030	.039*
Work pressure		.428**	.412**	.452**	.456**	.481**
Deadline		.395**	.391**	.360**	.392**	.355**
<i>Employee support</i>						
Perceived Autonomy			-.219**	-.187*	-.183**	-.174**
Supervisory support			-.036	-.035	-.029	-.014
Collegial support			-.208**	-.238**	-.242*	-.227*
<i>Family support</i>						
Having a partner				-1.363*	-1.361*	-1.362*
Domestic hours partner				.017	.014	.012
Domestic help				-.796*	-.760*	-.806*
<i>Firm support</i>						
Feedback moments					.061	.088
Autonomy					-.059	-.041
Work-family support					-0.10	-0.10
Satisfaction						-.121*
CS Diagonal Offset	17.70**	15.30**	14.77**	14.99**	15.04**	15.01**
CS Covariance	0.78*	0.43	0.32	0.37	0.29	0.10
-2 Log Likelihood	6093.90	3214.20	3191.04	3033.86	2961.39	2890.20

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

Source: Time Competition 2003