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Stream convenors: Tine Rostgaard (SFI – The Danish National Centre for Social Research) and Virpi Timonen (Trinity College Dublin)

MARTIN ZUBA, ULRIKE SCHNEIDER
RESEARCH INSTITUTE FOR ECONOMICS OF AGING
VIENNA UNIVERSITY FOR ECONOMICS AND
BUSINESS

ABSENTEEISM AND WORK-TO-FAMILY CONFLICT AMONG EMPLOYED INFORMAL CAREGIVERS IN EUROPE

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CONTENTS

Abstract

Population ageing and expected labor shortages in the economy both imply that successful reconciliation of elder care and paid work is becoming a key issue for employers, employees and frail older people alike. Family care contributes to ensuring quality and affordability in future care but work-to-family conflict may infer with providing such care. At the same time, taking up care responsibilities might lead to family-to-work conflict and hence affect productivity at work e.g. through absenteeism.

We use data from the fourth European Working Conditions Survey (EWCS) (Parent-Thirion et al. 2007) to investigate both, the relation between informal elder care and the occurrence of absenteeism events and work-to-family conflict for employees in 31 European countries. The ECWS focus on work-related items allows for a thorough analysis of the moderating effects of workplace characteristics on these outcomes.

We hypothesize that caregivers exhibit a higher degree of absenteeism than non-caregivers and that the factors influencing absenteeism differ between caregivers and non-caregivers among employees. More specifically we expect that caregivers' absences can be explained to a higher degree by pressing necessities. We also expect that employees with caregiving responsibilities report more time-related work–family conflict.

Results indicate that caregivers are more likely to miss days at work, and that some factors affecting their absenteeism behaviour and work-to-family conflict differ from the total sample. Time-related workplace policies associated with increased absenteeism reduce work-to-family conflict and might thus pay off via decreased fluctuation.

INTRODUCTION

Demographic projections unanimously suggest that the proportions of elderly and long-term care recipients among the population will rise considerably in the foreseeable future. Due to pressure for financial austerity, informal care plays a vital role in meeting this increased demand for elder care. Growing female labour market participation rates and the political goal to raise effective pension ages additionally contribute to the importance of investigating the effects informal care obligations have on paid work, work-to-family conflict associated with eldercare and factors facilitating the combinability of paid work and family work.

This paper focuses on one specific aspect: work–family conflict due to time shortage, including absenteeism as outcome of family-to-work conflict and self-reported work-to-family conflict. Previous studies have argued that due to the time requirements of caregiving, caregivers are particularly prone to absenteeism (Hoskins 1993, p. 359, Smith 2004, p. 370) and experience higher levels of work–family conflict (Barling et al. 1994). More specifically, care literature stresses that bearing the responsibility for a frail older person often involves having to leave work in case of an emergency, accompanying them to doctoral visits during work time. In addition, family caregivers manage care from their workplace (Carmichael et al. 2005).

However, quantitative analyses of European caregivers' absenteeism behaviour are rare and provide mixed evidence. Dautzenberg et al. (2000) find no evidence for increased absenteeism among Dutch workers with an informal eldercare responsibility, which they assume might be due to generous holiday regulations. In a similar vein, Pavalko/Henderson (2006) find that workplace policies and informal job characteristics play a decisive role in determining whether and to what degree caregiving is compatible with work.

While role conflict literature has found a clear link between caregiving and work–family conflict, these studies do not examine the workplace environment of the carer in detail. Studies that emphasise on the effect of the work environment on work–life conflict however do not focus on of the situation of caregivers (e.g. Hammer et al. 2003).

This study uses the fourth European Working Conditions Survey to investigate the relation between informal care to elderly relatives and the occurrence of absenteeism events as well as levels of work–family conflict for workers in 31 European countries. We seek to test whether informally caring workers are more likely to miss work; and if so, whether the determinants for this behaviour differ in contrast to non-caregivers. The survey's focus on work-related items allows for a thorough analysis of the effects of workplace characteristics and attitudes towards work. Furthermore, the analysis of self-reported work-to-family conflict will help to determine which of these factors facilitate the combination of paid work and elder care. We thus investigate whether certain workplace policies could be beneficial to employers even if they came along with increased rates of absenteeism, because they decrease presenteeism and fluctuation.

The rest of the article is structured as follows. Chapter II provides an overview of the existing literature on caregiving, absenteeism and work–life conflict. Chapter III presents our models and describes the EWCS as well as key variables of our analyses. Section IV presents the results. Section V summarizes our findings and draws conclusions for workplace and social policy.

THEORETICAL BACKGROUND & RESEARCH HYPOTHESES

A number of fields have examined caregiving and work–family conflict. In the field of psychology, the interactions between family obligations and work have been investigated in a role-conflict setting. Work–family conflict occurs if the demands of one role impair performance in the other role (Greenhaus/Beutell 1985). Economists have examined

absenteeism from a microeconomic rational-choice point of view: Models of time allocation explain absences via utility-maximization of workers subject to environmental conditions, restraints and preferences (Allen 1981, Barmby et al. 1991, Drago/Wooden 1992, Barmby 2002, Dionne/Dostie 2007). This chapter discusses these contributions and their relevance for caregivers' absenteeism behaviour.

TIME ALLOCATION THEORY

The standard model of time allocation features individuals who allocate their time budget to work and leisure activities. Workers choose their labour supply such that in the optimum, wage rate minus marginally increasing discomfort of labour equals marginally decreasing utility of leisure. This standard time allocation model has been adapted to eldercare by Johnson/Lo Sasso (2000). In their model altruistic individuals maximize utility by allocating their time resources to paid work, leisure and care of their parents. Declining marginal utilities depend on the wage rate and the health status of the parents. Again, in the optimum marginal utility in all three activities is equal and determines the opportunity cost of time.

Imperfect and rigid labour markets however prevent workers from contracting exactly the number of work hours that maximizes utility. Even if the worker could at the beginning of the week (or even day) compute his/her optimal labour supply quantity, most work contracts would not allow for such adaptations. Therefore, absenteeism is the easiest option to adjust labour supply on a short-run needs-based basis (Allen 1981). In the case of elder carers, short term adjustments of labour supply could be necessary (a) in the unplanned event of an acute deterioration of the care recipient's health status or other emergencies such as a fall, or, (b) planned in form of accompanying the care recipient to ambulatory doctor visits or participation in treatment (Arksey 2002, p. 154).

As absenteeism is costly to organizations, the firm has an incentive to pass accrued costs on to the worker who caused them and to set incentives or deterrents in order to discourage absenteeism. Its options to punish costly behaviour include reducing wages, delaying promotions, denying otherwise granted rents or, in extreme cases, termination of the work contract. According to theory, workers in return consider these possible consequences of absenteeism when deliberately deciding their level of absences (Drago/Wooden 1992). As a consequence, workers who are more prone to absenteeism might select into jobs that have relatively low costs of absenteeism, e.g. jobs offered by employers who are more likely to tolerate absences, but offer smaller wages (Allen 1981, p. 80). Finally, the fraction of remuneration forgone in the case of absences and the valuation of non-monetary utility of work also influence absenteeism, thus the decision rule of a worker pondering to miss work is given by the equation below:[1]

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[1] $U_{l,c}$ denotes utility derived from non-paid labour. Whether this time will be spent as leisure or care work depends on another utility maximizing process which depends on the time available, the health status of the care recipient and, of course, the shape of the relevant utility function.
P is the cost resulting from managerial consequences this day's absence entails. As forgone promotions etc. also reduce future earnings, this cost has a time index and its sum is depreciated by a time preference factor $\delta < 1$.

Chart 1: Elements of change in utility of labour in case of absenteeism

$$\Delta U_{L,C} \quad - \quad p \cdot \Sigma_t \delta P_t \quad - \quad \beta \cdot \omega \quad - \quad U_W \quad > 0$$

| (additional) utility of non-labour | (expected) cost of punishment | forgone remuneration | non-monetary utility of paid work |

Source: own illustration

This specification of absenteeism behaviour depends on key assumptions of microeconomic models – full information and freedom of choice (Spieß/Schneider 2003, p. 43). Thus it is only capable of explaining voluntary variances in absenteeism behaviour and disregards cases in which for example sickness, inability to reach the workplace and other emergencies are responsible for absences. To address this issue, absenteeism literature distinguishes between voluntary and involuntary absenteeism (Hackett/Guion 1985). INVOLUNTARY ABSENTEEISM is supposed to be beyond the control of the worker and caused by legitimate (in the eyes of the employer) reasons. Sickness, funeral attendance and inability to reach the workplace are examples mentioned by Hackett/Guion (1985). Contrary to that, VOLUNTARY ABSENTEEISM is assumed to be the result of the decision of the worker not to attend despite his/her possibility to do so. It is typically considered illegitimate (Driver/Watson 1989, Drago/Wooden 1992, p. 765) and depends to a large extent on job satisfaction (Drago/Wooden 1992) – i.e. non-monetary utility of work.

As caregiving is time-extensive and requires planned and unplanned involvement during work time, we hypothesize caregivers to be more prone to absenteeism behaviour in general (Hypothesis 1). Moreover, although these absences might constitute a breach of contract, they are only partly within the immediate control of the worker. We thus hypothesize that factors attributed to involuntary absenteeism play a larger role in explaining caregivers' absences when compared to non-caregivers (relative to factors attributed to voluntary absences) (Hypothesis 2).

ROLE CONFLICT THEORY

Role conflict occurs if participation in one role makes it difficult to meet demands of another role. The source of this incompatibility may be the result of strain, time or behavioural requirements (Greenhaus/Beutell 1985). This study focuses on time-related work–family conflict. Incompatible time requirements occur if two roles simultaneously require time (a

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p is the probability that this managerial punishment will take place. It depends on the history of absenteeism behaviour, as more regularly missing workers are more likely to face consequences, and on further job characteristics, which could include company size, plant-specific HR policies etc.

ω and **β** represent the daily wage rate and the fraction forgone in case of an absence respectively. As many social systems include regulations which distinguish between short-term and long-term absences regarding remuneration replacement, this depends on the history of previous absences as well. The product βω equals the monetary cost of absenteeism for workers.

The non-monetary cost of absenteeism is captured by U_W. It depends on work characteristics such as interpersonal relationships and to what degree recreation and self-confirmation are associated with work. As this model does not cover partial absences, the utility of work is a discrete factor. Non-monetary utility of labour also captures the degree to which labour constitutes a burden – whether it makes sick, is repetitive etc. If the additional utility of non paid work activities is larger than its costs, the worker will not attend.

notion similar to the time allocation model) and/or if one role keeps a person preoccupied when being engaged in the other role, reducing the quality of time devoted to that specific role. The number of hours worked, commute time, shift work and the flexibility of the work time regime define work time. Marital status, spouses' employment status and the number of children are key determinants for family time requirements (e.g. Pleck 1977).

Work–family conflict has two directional dimensions: work-to-family conflict describes situations in which work obligations impair performance in family roles (such as caregiving), while family-to-work conflict, contrariwise, occurs if demands originating from family roles impair performance at work. HR policy research has focused mainly on absenteeism, turnover and performance – outcomes of family-to-work conflict (Kossek/Ozeki 1998). We investigate both directions of work–life conflict, as the objective of ensuring optimal work–family compatibility for caregivers is not limited to reducing the indirect costs of informal caregiving employers face, but also includes provision of high quality informal care with as little negative consequences to the informal caregiver as possible.

Previous research has established a clear link between elder care obligations and absenteeism (Barling et al. 1994, Kossek et al. 2001)[2]. Barling et al. argue that when "family demands […] can neither be delayed nor ignored, employee absence is likely" (1994, p. 392). They conclude flexible work time regimes might be an appropriate method to conciliate responsibilities (Barling et al 1994, p. 395). Kossek (2001) stresses the alleviating role of work or family climates for sharing concerns on the extent of caregivers' work–life conflict. Likewise, Hammer et al. (2003, p. 431) concludes that any measures organizations take to reduce work–family conflict may pay off due to decreased absenteeism and withdrawal behaviours. Skinner/Pocock (2008) find that work overload is an even better predictor for work–life conflict than work time and control over work scheduling. We thus expect not only the extent of the work week but also several other workplace characteristics to have an effect on the level work-to-family conflict.

Role conflict literature reaffirms the hypothesis of increased absenteeism of caregivers, as they are more likely to experience family-to-work conflict. Additionally, as caregivers face higher time demands in their family roles, work obligations are more likely to interfere with these. We thus also hypothesize to find higher levels of perceived work-to-family conflict among the caregiving subsample (Hypothesis 3). Furthermore, we hypothesize that conciliating factors such as positive work climates and flexible work time regimes go along with reduced levels of caregivers' perceived level of work-to-family conflict even if they raise absenteeism (Hypothesis 4). Role conflict literature does not suggest any hypotheses on different reactions of caregivers on stressors in terms of perceived work-to-family conflict, but we will nevertheless test for any emerging differences. In this respect, our analysis is explorative.

MODEL & DATA

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[2] Both studies feature a quite homogenous population consisting of U.S. university staff and mainly use family-related independent variables such as carer-caree relation, family attitudes and climates. In contrast to that, the strength of our dataset including workers all across Europe lies in its diverse work-related variables.

MODEL

We regard absenteeism as caused by an array of personal circumstances (including involvement in informal elder care), formal and informal job characteristics and the institutional framework. These factors could influence absenteeism behaviour by affecting incentives or deterrents to miss work, by generating pressing occasions of having to leave work or by affecting possibilities workers have to miss work.

The following chart describes which of these factors affect which cost and utility components pondered in workers' decisions to miss a day at work, which variables are used to capture them and what the effect of care obligations could be in each group of factors. Italics represent factors not covered in the EWCS:

Chart 2: Conceptual model of factors influencing utility of labour
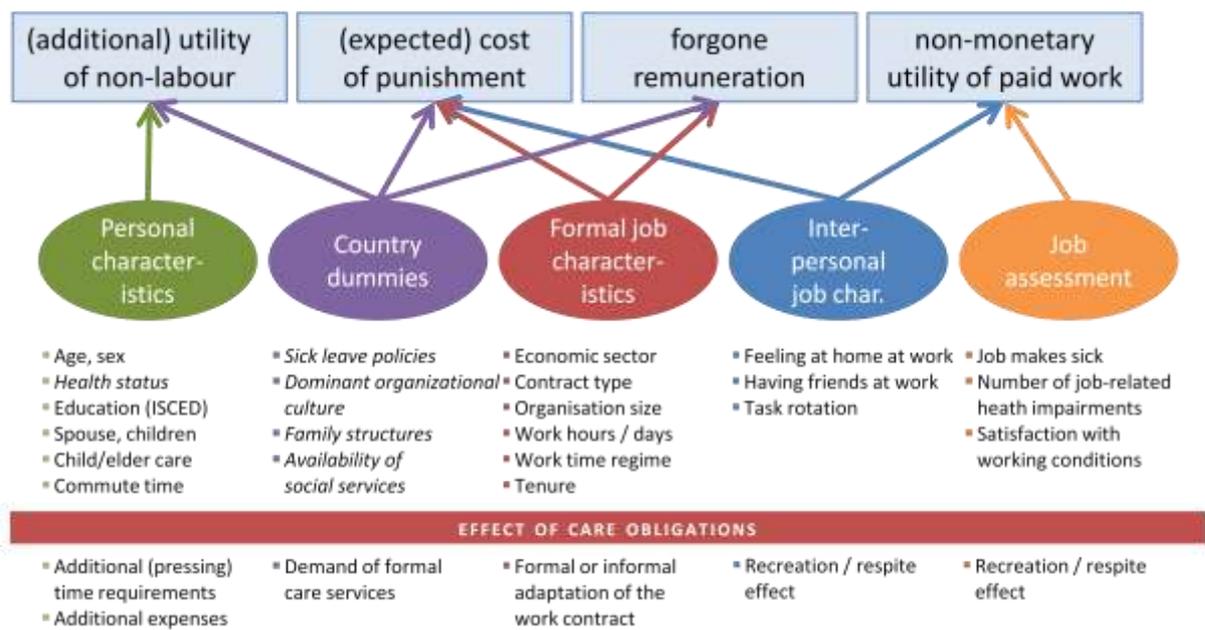
Source: own illustration

Since absenteeism is a binary outcome dependent on these factors, we will regress workers' absenteeism behaviour using logistic regression.

Similarly, time based work-to-family conflict is caused by a number of stressors and mitigated by reconciling factors. Potential stressors include household structure and rigid work time regimes. Positive work climates and job assessment could alleviate work-to-family conflict.

The following chart provides an overview of the factors associated with to work-to-family conflict.

Chart 3: Time requirements and factors influencing work-to-family conflict
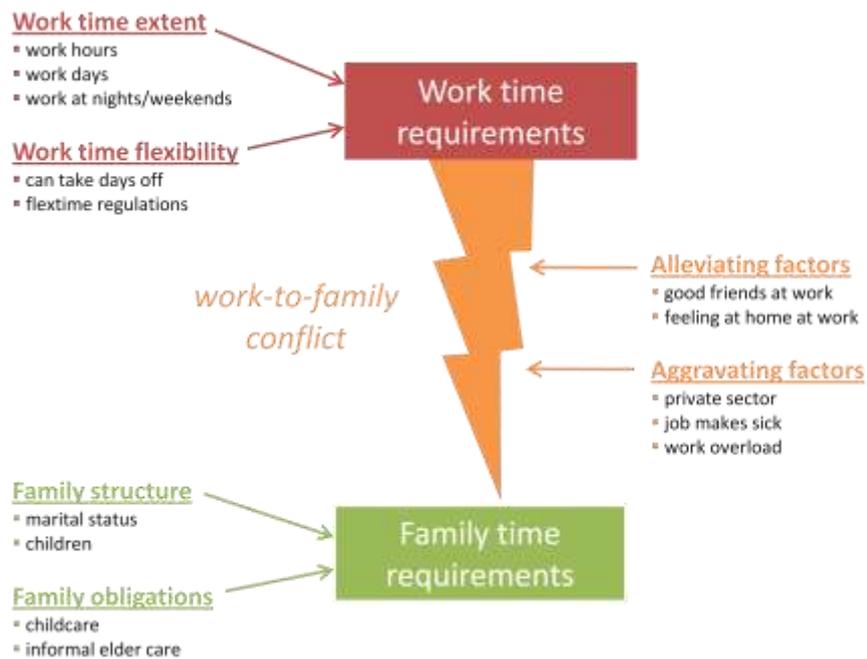
Source: own illustration

The degree of work-to-family conflict will be regressed using ordered logistic regression.

DATA

This study uses data from the Fourth European Working Conditions Survey (EWCS) carried out in 2005 (Parent-Thirion et al. 2007). It contains data from the 27 EU-countries plus Switzerland and Norway as well as the EU-candidate countries Croatia and Turkey. About 1 000 people (excluding students, housewives, unemployed and retired) were interviewed per country with the exception of Cyprus, Estonia, Luxembourg, Malta and Slovenia, where only 600 entries exist.

The survey's main focuses lie on the characteristics of the interviewees' job, such as the sector it belongs to and the employment status (self employed, full-time or part-time employed). Numerous job characteristics, such as machinery usage, work time regimes etc. are thoroughly assessed. The survey laid particular emphasis on interpersonal relations at the workplace and attitudes of the workers towards their job. Additionally, the EWCS includes items that address work–family balance and outside-work commitments. This rich diversity of workplace-related variables is the main advantage of using the EWCS for studying working informal caregivers. The main drawback of using a dataset that was not specifically designed to analyse caregivers' absenteeism behaviour is the lack of some control variables commonly used in analyses of informal caregiving and/or absenteeism studies, such as self-reported health status and the relation between caregiver and care recipient.

After dropping cases where key variables were missing or respondents were currently not working, 25 234 out of 29 680 entries remained in the study sample. Most other missing values were imputed using the STATA module ›mi ice‹, which implements multiple imputation using chained equations (Royston 2004). The number of missings was further reduced by list-wise deletion since some missing values were not imputed due to conceptual problems (e.g. commute time). 3 892 employees in the sample (15 %) provide informal care to an older person or disabled adult.

MEASURES

INFORMAL CAREGIVERS were identified as those respondents who answered the question "How often are you involved in … [c]aring for elderly/disabled relatives" with "Once or twice a week" or more often. This threshold represents a compromise between the attempt to include only workers whose care obligation is extensive enough that it could cause work–family imbalances and the effort to keep cargivers' sample size per country high enough. The number of informal carers per country ranges from 57 (Denmark) to 212 (Bulgaria). The subsample includes all kinds of informal caregivers in terms e.g. of the type of care provided (help with (instrumental) activities of daily living ADL/ IADL) or with regard to the length of time they have been providing care. This means that we look at workers who recently took over care responsibilities and are in the process of adapting to their new situation as well as to "survivors", who manage to combine work with long-term caregiving spells. While this may not allow drawing conclusions for the total population of caregivers irrespective of employment status, this is the representative sample of employed caregivers needed for assessing labour market outcomes and performing comparisons with workers who do not provide informal care.

The EWCS includes two **ABSENTEEISM**-related questions that are used for our analysis: The question whether respondents missed work during the last twelve months for various reasons[3] and, in the case of health-related absenteeism, the number of days missed[4]. With respect to the first question we have to keep in mind that this represents absenteeism occurrences in contrast to absenteeism duration.[5] For the purpose of our study, we focused on absences due to family and health reasons, as these two categories are most likely to capture absences due to caregiving.[6] 24.3 % of the respondents have been absent for health reasons, 12.4 % have been absent for family reasons and 31.8 % have been absent for health or family reasons.

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[3] Exact wording: "In your main paid job, over the past twelve months, **have you been absent** for any of the following reasons?" Possible answers were: "Maternity or paternity leave", "Educational leave", "Family-related leave", "Health problems", "Other reasons". (Parent-Thirion et al. 2007, p. 126, emph. added)

[4] Exact wording: "Over the past 12 months **how many days in total were you absent from work** for reasons of health problems?" (Parent-Thirion et al. 2007, p. 127, emph. added). The analysis of the number of sick leave days produced too unsound results and is thus not discussed in this paper.

[5] Our study is not the first to investigate absenteeism events as opposed to absence durations. Drago/Wooden (1992) come to the conclusion that whether or not to be absent and the duration of absences are results of different "games" workers play against their employers. Barmby (2002) analyzes absences conditional on previous day's attendance.

[6] Health-related absences were included since it might be the case that respondents attributed care-related absences to health reasons if they could not get time off and resorted to feigning ill. Furthermore, caregiving has been found to have a significant impact on caregiver's health status (Beach et al. 2000, Burton et al. 2004).

Among the caregiving subsample, these numbers are significantly higher (28 %, 14.8 % and 36.7 %).

One question in the EWCS addresses time-based **WORK–FAMILY CONFLICT**. Respondents were asked "In general, do your working hours fit in with your family or social commitments outside work very well, well, not very well or not at all well?" Due to the wording of the question, which features working hours as the decisive factor, it serves as an indicator of time-based work-to-family conflict, a dimension of work–family conflict. The following chart compares answers of caregivers and non-carers. In both subsamples, about 48 % of respondents said their working hours fit "well" with their outside work commitment, however only 28.6 % of caregivers as opposed to 32.2 % of non-caregivers answered with "very well", while 23.4% of the caregivers and only 20.2 % of non-carers reported that working hours fit "not very well" or "not well at all". The Kruskal-Wallis rank sum test rejects the hypothesis of equal distribution with high significance (p = 0.001). As this work–family measure is of ordinal rank, ologit regressions will determine which factors contribute to higher/lower perceived level of work–family conflict.

Chart 4: Work-to-family conflict and occurrence of absences of caregivers and non-carers
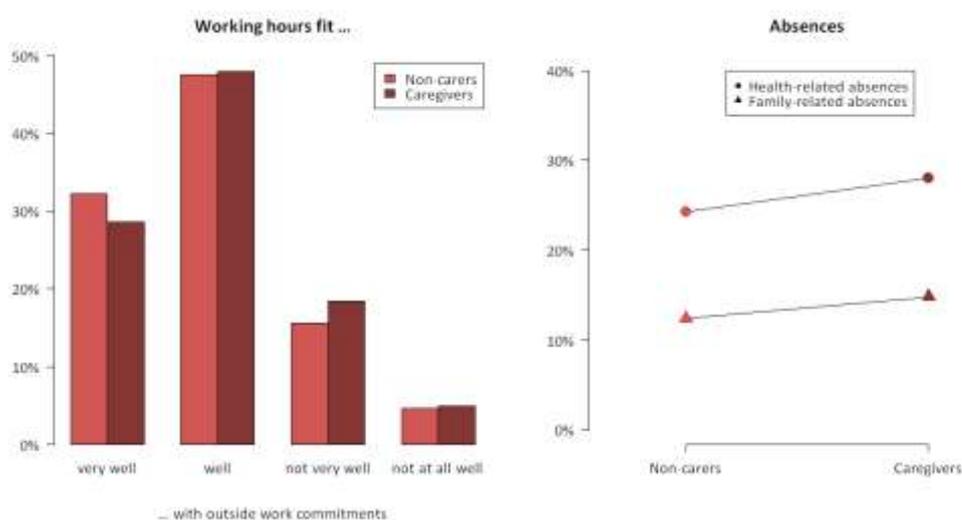
Source: Parent-Thirion (2007), own illustration

PERSONAL CHARACTERISTICS or circumstances that were accounted for in this study include sex, age, household composition, economic status of respondent and ISCED-level of highest completed education. Data on the income decile was not used due to possible endogeneity issues, as more absenteeism-prone workers could end up in worse paid jobs. Relevant variables of household composition are presence of children, parents or (working) spouses in the same household. The presence of children potentially causes situations in which absences are necessary and might constitute a family stressor. Spouses' work–life conflict can affect work-related outcomes (Hammer et al. 2003). Additionally, the presence of a (non-

employed) spouse or parent might indicate that someone is available to share the caregiving commitments and/or to help out if an acute need for care provision arises.

JOB CHARACTERISTICS are considered in the analyses because they are likely to affect both employees' incentives/deterrents to miss work and employers' willingness to punish absences or allow for it via flexible work schedules, as described in the section "time allocation theory". We also expect that workplace characteristics take an effect on perceived work–family balance. The variables used in our analyses capture

- **formal characteristics** (i.e. contract type, work time regime, tenure etc.)
- **informal characteristics** (i.e. what workers do at work, such as whether they rotate tasks, have the possibility to take days off),
- **interpersonal relations** at the workplace (i.e. to what degree respondents feel at home at work, regard their colleagues as friends or can count on their help if needed) and
- **job assessment criteria** (such as whether the job makes sick and to what degree workers are content with their working conditions).

There are four ways flexible work time regimes could affect absenteeism behaviour. Firstly, concessions of the company might increase the control the workers have over their work life, thus raising loyalty and motivation, thereby lowering absenteeism. Secondly, flexible work contracts could allow for better compatibility between work and family obligations and cancel out the need to miss work (Baltes et al. 1999, p. 499). Thirdly, flexible work time regimes could be the prerequisite for taking leaves in cases of family emergencies in the first place. Finally, jobs which offer flexible work time could coincide with jobs characterized by low costs of absences. In the latter case managers are less reluctant to grant days off and missing work is less of a problem, thus these jobs might attract absenteeism-prone workers (Allen 1981).

JOB ASSESSMENT criteria included in our analyses are whether respondents say that their job makes them sick, (and if so, the number of health impairments mentioned), whether respondents were content with their work time arrangements and whether they felt they have enough time to get their job done. Health-affecting jobs will without doubt increase health-related absences, but as they are probably also associated with lower non-monetary utility of work, other forms of absenteeism could also be affected. Finally, respondents were asked whether they have enough time to get their work done. We use this variable as proxy for work overload. As each of these characteristics can have an effect on absenteeism as well as work–family balance, workplace policies and climates will have to be assessed considering both possible effects.

RESULTS

ABSENTEEISM

Following the considerations derived in the literature review and the hypotheses formulated above, a multivariate model of absenteeism behaviour was constructed using a set of personal and job-related characteristics as well as control variables available in the EWCS dataset. Table 1 (see annex) presents results for a combined analysis of health and family-related absences, for family-related-absences only and for health-related absences only. In each case, the first

model provides results for an estimation using the full sample whereas the second model was estimated for the subsample of workers with caregiving commitment.. Differences between coefficients were tested for significance in a third regression ("best fit model").

Nagelkerke R^2 reported originate from identical regressions performed in the non-imputed sample. As the regressions do not control for health status, low quality criteria were to be expected. Furthermore, regressions using the caregiving subsample suffer from a low number of caregivers per country.

The *ceteri paribus* effect of being a caregiver is expressed by the coefficient of the caregiver dummy in regressions (1), (4) and (7) for the full sample. In the best fit models (3), (6) and (9) which include cross-terms, the *ceteris paribus* effect can be calculated by multiplying the caregiver dummy's odds-ratio with the caregiver cross-terms odds-ratios exponentiated with the mean of the interaction term. Differences between these measures of the marginal effect result mainly from the fact that among the caregiving subpopulation variables used in cross-terms have means different to those of the full population. These marginal effects can be tested for significance by formulating a joint hypothesis of the caregiver dummy's coefficient plus the cross-terms' coefficients times the mean of the interacted variable being equal to zero. Since all *ceteri paribus* marginal effects are highly significantly distinct from zero, the data support our hypothesis of increased absenteeism among the caregiving subsample. Depending on the type of absence, caregivers are *ceteri paribus* 12 to 44 percent more likely to have missed work.

Most coefficients of personal and formal job characteristics are significant and have the expected sign. Interestingly, of the three variables capturing flexible working contracts, two have a positive effect on absenteeism probability (possibility to take days off and flexitime regulations), while the possibility to set working hours completely as pleased reduces absence probability. Likewise, the two variables describing interpersonal relations at the workplace have opposite effects: having good friends at work raises absenteeism, feeling at home at work lowers it.

The "best fit" models (3), (6) and (9) feature four differences between caregivers and non-carers absenteeism behaviour. Firstly, female caregivers are, contrary to female non-caregivers, not more likely to have missed work than their male counterparts. The caregiver × part-time crossterm is significant and negative at 90 % confidence level only in some specifications of the regression. Additionally, the effect of having friends at work is somewhat larger in the caregivers' subsample, though regression (3) fails to establish a significant difference between caregivers and non-carers in this respect. Finally, contrary to non-caregivers, carers are not more likely to miss work if their job involves task rotation.

The regressions on family-related absences only reveal that caregivers are almost twice as likely as non-caregivers to have missed work due to family reasons than non-carers. Additionally, another set of explanatory variables dominate the regression: Various "motivational" factors such as satisfaction with working conditions and feeling at home at

work are insignificant in this specification. By contrast, presence of children, spouses or being a caregiver have a larger effect than in the regression on health-related and family-related leaves. For caregivers, however, the presence of a spouse loses its significant influence on absenteeism probability.

Variables capturing work time extent (i.e. number of hours/days worked per week as reported) and the ISCED level of education are insignificant in all specifications (data not presented).

WORK-TO-FAMILY CONFLICT

Table 2 (see annex) presents the results of the regression on time-based work-to-family conflict. In this ordered logistic regression, a number of variables related to work time extent and family structures that were insignificant in the regressions on absenteeism (and were thus removed from the regressions) now feature significant coefficients. Furthermore, quality criteria in the non-imputed sample regression indicate higher explanatory power of these models.

Caregivers are 36% more likely to report a higher degree of time-based work-to-family conflict. Again, most personal and job-related variables have the expected sign and are significant. Not surprisingly, the extent of the work week plays a crucial role in determining the level of perceived work-to-family conflict. The number of hours and days worked, the number of days worked at nights or at weekends and the number of days with more than 10 hours of work have a large influence on this outcome. The work time regime also plays a central role in explaining time-based work-to-family conflict: All respective variables significantly reduce perceived work–life conflict for elder carers and the full population alike.

Differences between caregivers and non-carers are significant in three aspects: Firstly, presence of a spouse does not predict more work–life conflict for caregivers. Secondly, having good friends at work is a stronger indicator of less work–life conflict for caregivers. These differences are barely significant at 90 % confidence level. Thirdly, work overload is a stronger predictor for more work-to-family conflict for the caregiving subsample than for the full sample. Furthermore, a number of factors that are significant for are the full sample are insignificant for caregivers, such as having a side job, flexitime regulations or tenure. No significant differences between groups could be established in this regard, as coefficients are of roughly equal size.

DISCUSSION

The aim of this study was to explore the effect of informal caregiving and a range of personal and job-related variables on absenteeism behaviour and perceived level of work-to-family conflict. We were interested both in whether caregivers are, on average, more prone to absenteeism and work–family conflict, and whether they differ significantly from non-caregivers regarding what factors influence these outcomes.

Time allocation models and role-conflict theories served as theoretical background and were used to generate four research hypotheses. We hypothesised that, (1) due to increased time

pressures, caregivers would face a higher opportunity cost of time and thus be more prone to absenteeism. Furthermore, we hypothesised (2) that due to an increased likelihood of family emergencies arising, caregivers' absences would be determined to a lower degree by factors attributed to "voluntary" absenteeism, i.e. factors under control of the workers. Work–family conflict literature likewise suggests higher rates of absenteeism among elder carers. As working informal caregivers fulfil two roles, role conflict in both directions (family-to-work conflict, of which absenteeism is a consequence, as well as work-to-family conflict) is likely to occur. Accordingly, we also hypothesized (3) that workers with informal caregiving commitments are more likely to perceive work-to-family conflict and (4) that positive work climates and flexible work schedule reduce perceived work-to-family conflict.

Using data of the fourth European Working Conditions Survey (Parent-Thirion et al. 2007), we regressed reported absenteeism occurrence and the reported level of work-to-family conflict on a number of explanatory factors, including household composition and detailed job characteristics. Our findings lend support to all four research hypotheses.

ABSENTEEISM

Results provide evidence for higher absenteeism and work-to-family conflict for caregivers in Europe. Caregivers are about 20 % more likely to have missed work during the past 12 months. This is to a large degree due to their much higher probability to have missed work for family reasons (roughly 44 %), but they are also more likely (roughly 16 %) to report having consumed sick leave. The fact that the size of these *ceteri paribus* effects are larger than the difference between caregivers' and non-carers' absence occurrence indicates that there are differences in behaviour and/or levels of explanatory factors which lower absences to the values observed, which can result from adaption to the new challenges caregiving entails or that workers who select into double work-care commitments constitute a specific group.

In our investigation of driving factors associated with absenteeism, we found that most factors explaining absenteeism (and work–life conflict) are equally applicable for carers and non-carers. Specifically, carers and non-carers profit equally from generous workplace policies such as the possibility to take days off or flexible work time regimes (cf. Pavalko/Henderson 2006).

There are, however, a number of significant differences between the caregiver and non-carer subsample: For caregivers, there is no gender gap in absenteeism behaviour (see regression 3). Absenteeism literature suggests that the gender gap in absenteeism behaviour is caused by a larger response of female workers to family obligations, indicated for example by the presence of children[7] (Allen 1981). Vistnes (1997) finds that "behaviour of single fathers or fathers with working wives […] is closer to that of working mothers with younger children than to that of other men, at least with respect to home production and care-giving responsibilities" (p. 321). Our results suggest the same to be true with respect to caregivers to the elderly – once men adopt behaviour traditionally attributed female and take up care responsibility, the gender-

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[7] The larger effect of childcare on female absences we observe in regression (3) is in line with this reasoning, but the still significant gender dummy suggests that this does not explain the gender gap entirely.

based difference in absenteeism behaviour likewise– disappears. This conclusion is also in line with Marks' (1998) findings, which lead her to reject her initial hypothesis of a stronger effect of caregiving on women's well-being due to increased role pressures.

Similarly, marital status (presence of a spouse in the same household) is a predictor of increased absenteeism for the full sample, but not for the caregiving subsample. The chow-test rejects the hypothesis of equal coefficients. Our model (see chart 2) suggests that marital status influences utility derived from non-labour (or, which might express the same thing, occurrence of emergencies which require presence). Being married indicates that workers also fulfil family roles, which can raise time demands. For caregivers being married could indicate that there is someone available to share the caregiving duties and provide acute care in case of an emergency situation.

Furthermore, caregivers are, in contrast to non-carers, not more likely to miss work if their job involves task rotation. Our model of absenteeism links task rotation, a variable describing interpersonal relations at the workplace, to both (expected) cost of managerial punishment of absences and non-monetary utility of work. Task rotation means that the work of an employee can be easily replaced by one of his colleagues, which keeps costs caused by absences within a limit. In addition jobs involving task rotation tend to be repetitive and tiresome which lowers work utility. A significant result indicating that caregivers' absences are not influenced by task rotation thus indicates that carers either are more likely to ignore the costs absenteeism causes to their employer or are not more likely to miss work due to the fact they dislike the repetitive tasks they perform. Both interpretations are in line with hypothesis 2, which supposes that factors attributed to voluntary absenteeism are less important in the caregiving subsample.

Finally, regression (3) indicates that the absenteeism-lowering effect of working part-time is only effective for the caregiving subsample. This indicates that, by reducing time pressures, working part-time is an adequate way of combining care and paid work.

Since the caregiver dummy in the "best fit" regressions (6) and (9) are larger than the respective differences in absences reported by carers and non-carers (see chart 3), we have also found evidence of selection or adaptation processes that enable caregivers to reduce their absence probability below the level we would observe if we applied the *ceteri paribus* effect of being a caregiver.

WORK-TO-FAMILY CONFLICT

As with absenteeism, our results back the hypothesis 3 of increased level of time-based work-to-life conflict among the caregiving subsample. On the one hand, this is probably due to the fact that working caregivers to the elderly are engaged in a time-demanding family role, which might not be the case for a proportion of the non-caring subsample that experiences no work–life conflict at all. On the other hand, work-to-family conflict is strongly associated with family-to-work conflict (Anderson et al. 2002), which is caused by family stressors, thus there might also be an indirect effect via family-to-work conflict.

Universitat de València - ERI POLIBIENESTAR.
Edificio Institutos-Campus de Tarongers. Calle Serpis, 29. 46022. Valencia.
Phone: (+34) 96.162.54.12– C.I.F. Q4618001-D
Email: espanet2011@uv.es

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As assumed with hypothesis 4, generous working conditions and positive work climates were found to reduce work–life-conflict and hence constitute important aspects of workplace policies.

Differences between caregivers and non-caregivers arise in three areas. Firstly, caregivers do not experience more work–family conflict if they are married (this result is only significant for female caregivers). Presence of a spouse indicates that a worker is engaged in both work and family roles, causing possible work–family conflict. Informal caregivers are in engaged in a time-extensive family role whether they are married or not, which is why presence of a spouse does rather indicate presence of someone who might share caregiving responsibilities. Unfortunately, in the EWCS household members can classified as either retired, or homemakers or unable to work due to sickness/disability. Therefore, we cannot safely distinguish cases where spouses are care recipients.

A larger (although in some specifications insignificant) effect of having good friends in the caregiving subsample can be interpreted in different ways. In line with the argumentation in the previous section, having good friends at work is a prerequisite for using informal ways to combine work and care. Furthermore, having good friends at work helps caregivers building extended care networks and provides opportunities to foster non care-related social contacts, which provides respite from care obligations. Finally, having good friends at work could express what Kossek/Colquitt (2001) refer to as "work climates for sharing concerns": Having someone to talk to considerably reduces levels of role conflicts. Note that the variables "feeling at home at work", "having good friends at work" and "getting help from colleagues when needed" are related to this issue and might capture the same effect.

Finally, the significantly larger effect of work overload on caregivers' work-to-family conflict might be attributed to the fact that caregivers use their work time to coordinate care services or to check on the care recipient's status. If workers report that they do not have enough time to get their work done, this work overload could indicate that it is more difficult or even impossible for them to engage in this kind of care management at work. Additionally, caregivers might react stronger to work-related strain because they do not have enough time for recreation after work (Ponocny et al. 2010).

IMPLICATIONS

In the past, HR literature has discussed work–life conflict mainly via its outcomes absenteeism, turnover intentions and productivity, but is becoming increasingly aware of the importance of work–life balance for job satisfaction as another factor that is associated with productivity. We add to this view the objective of ensuring capability and willingness of workers to provide informal care in the future – which will be crucial for the continued affordability and quality of future long term care.

Our analysis of absenteeism and work-to-family conflict has revealed several categories of factors affecting these outcome variables. Firstly, what we call 'risk factors' raise absenteeism as well as work-to-family conflict. Having children, being a caregiver and being married are in

Universitat de València - ERI POLIBIENESTAR.
Edificio Institutos-Campus de Tarongers. Calle Serpis, 29. 46022. Valencia.
Phone: (+34) 96.162.54.12– C.I.F. Q4618001-D
Email: espanet2011@uv.es

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this category. Due to the increased time demands in the family sphere these groups of people are subject to a higher risk of work–life conflicts. What politics can do is provide services or ensure working conditions that minimize such time-based conflict. Measures of a country's institutional framework are covered by the country dummy variables in our regressions. Other measures can be taken on the organizational level (e.g. policies concerning work schedules and leave policies), the workplace level (e.g. support provided by supervisors and colleagues) and the family level (e.g. division of family labour).

In order to test for the country-specific effects of being a caregiver, we constructed two additional regression equations from regression (4) and (10) which include 31 different caregiver dummies for each country. The value of the 31 coefficients express the effect being a caregiver has on absenteeism or perceived level of work-to-life conflict in the respective country. Maps 1 and 2 (see annex) map these coefficients. The effect of being a caregiver varies considerably across Europe. We assume different family role models and care policies to be responsible for the variance. Since the number of caregivers per country is limited in the EWCS, many country-specific regressions are insignificant and a more detailed analysis of country-specific effects could not be performed.

Chart 5: Effects of workplace and personal characteristics on absenteeism and work-to-family conflict

		absenteeism	
	raising	no effect	lowering
work-to-family conflict raising	children, elder care, spouse, female; job makes sick	sidejob; female (carers) commute time; work time & overload	private sector
no effect	task rotation; employed	task rotation (carers); spouse (carers)	temporary work
lowering	flexitime, can take days off; good friends at work	work week extensity help from colleagues	free work time; feeling at home at work; tenure

Source: own calculations based on Parent-Thirion (2007)

In our analysis we found a number of workplace policies and characteristics of interpersonal relations at the workplace that influence the behaviour of caregivers at work. Two out of three time-related workplace policies, i.e. formal characteristics of the job, were found to have oppositional effects on absenteeism behaviour and perceived level of work–family conflict. While flexitime and the possibility to take days off raise absenteeism, they lower the level of work-to-family conflict. This indicates that there is a trade-off between lower absenteeism and

increased time-based work-to-family conflict as responses to conflicting time demands from work and family obligations. Granting generous work time policies could pay off to employers via decreased work-to-family conflict, which in turn decreases fluctuation and increases job satisfaction (Anderson et al. 2002).

Having good friends at work is another factor that reduces work-to-family conflict but increases absenteeism. We have argued that having good friends at work is on the one hand a prerequisite for using informal ways to reduce or shift work time in order to combine work and family responsibilities, and on the other hand helps creating supportive work climates that reduce work-to-life conflict. Interestingly, for the caregiving population the alleviating effect on work-to-family conflict is larger than for the non-caring subpopulation and the effect on absenteeism is insignificant (although there is no significant difference to the non-caring population either in this respect). This indicates that having good friends at work might be more important for caregivers than for non-carers.

Finally, there are some factors that reduce both work-to-family conflict and absenteeism: Feeling at home at work, completely free work time and tenure. The overall positive influence of the feeling at home variable underlines the importance of positive work climates already pointed out by several other authors (Drago/Wooden 1992, Kossek/Ozeki 1998). Allowing workers to choose their work time completely as it pleases them is obviously not possible for all organizations or jobs, although the positive effects of control over one's work schedule on absenteeism and work-to-family conflict speak for themselves. The effect of tenure could result from seniority or selection effects.

LIMITATIONS OF THIS STUDY

The decision to base a study on caregivers' work–family conflict on the EWCS dataset, which was neither designed to analyse care nor absenteeism, caused our analysis to lack some variables which are usually included in analyses of caregivers' work–life conflict. First of all, we have no data on the relation between the caregiver and the care recipient, whether the care is provided in-home or the caregiver visits the care recipient, and the nature and severity of the care recipient's health impairments. Singling out „high intensity caregivers", that is employees who provide substantial time help to older persons, could be intriguing. A number of studies point to differences in the impact of caregiving on employment by intensity of caregiving. Thus, in their recent study on OECD countries, Colombo et al (2011) find that the probability to give up paid employment clearly depends on the intensity of care. Trukeschitz et al. (2010) reveal that the impact of elder care on work-related strain differs between employees caring for persons with cognitive problems and for persons and other caregivers.

Likewise, a number of control variables are missing in our analysis of absenteeism, among them self-reported health status. Since our outcome variable is binary we cannot test for partial absences or duration of absenteeism spells, where differences between care-induced absences and other absences could exist (Barling et al. 1994, Hepburn/Barling 1996). Additionally, the number of caregivers per country is rather small – relatively poor quality criteria therefore had to be expected.

The aim of this study was not to re-invent models that predict absenteeism conditional on workplace policies; or to find out what kinds of caregiving arrangements had what detrimental effects on labour market attachment. We were interested in the effect caregiving has on absenteeism and the interactions of workplace policies and work–family conflict. Our results provide insights into the special situation of working caregivers and integrate well into previous literature describing the problems caregivers face at work (Carmichael et al. 2005).

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Universitat de València - ERI POLIBIENESTAR.
Edificio Institutos-Campus de Tarongers. Calle Serpis, 29. 46022. Valencia.
Phone: (+34) 96.162.54.12– C.I.F. Q4618001-D
Email: espanet2011@uv.es

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Table 1: Absenteeism Regressions

	mean (std. error)	health- or family-related absences (1) full sample	(2) carers only	(3) best fit	family-related absences (4) full sample	(5) carers only	(6) best fit	health-related absences (7) full sample	(8) carers only	(9) best fit
personal characteristics										
Age	41.0957 (11.9388)	1.0195 ** (0.0086)	1.0304 (0.0231)	1.0197 ** (0.0086)	1.0695 *** (0.0086)	1.0846 ** (0.0364)	1.0685 *** (0.0142)	0.9984 (0.009)	0.9991 (0.0235)	0.9984 (0.009)
Age²	1831.3890 (1011.5420)	0.9997 *** (0.0001)	0.9996 (0.0003)	0.9997 *** (0.0001)	0.9991 *** (0.0002)	0.9991 *** (0.0004)	0.9991 *** (0.0002)	1 (0.0001)	1 (0.0003)	1 (0.0001)
Female	0.4959	1.2286 *** (0.0413)	1.0725 (0.0883)	1.2594 *** (0.0458)	1.0645 (0.0516)	1.0274 (0.114)	1.0574 (0.0557)	1.2643 *** (0.0458)	1.0645 (0.0939)	1.3179 *** (0.0518)
Carer *caring at least 1-2x/week*	0.1544	1.19 *** (0.0478)		1.3726 *** (0.1366)	1.2633 *** (0.0686)		1.6992 *** (0.2568)	1.1285 *** (0.0487)		1.3392 *** (0.1441)
Female ×Carer	0.0926			0.8556 * (0.0704)			1.03 (0.111)			0.7875 *** (0.0687)
Children *presence of at least 1 child < 6 yrs*	0.1547	1.2312 *** (0.0694)	1.3973 * (0.2505)	1.2383 *** (0.0699)	1.6408 *** (0.1169)	1.4385 * (0.3128)	1.625 *** (0.116)	1.0527 (0.066)	1.3921 * (0.2616)	1.063 (0.0667)
Female ×Children	0.0689	0.9793 (0.077)	0.9129 (0.2189)	0.9662 (0.0762)	1.2629 ** (0.1234)	1.4868 (0.4226)	1.2694 ** (0.1245)	0.8733 (0.0763)	0.7373 (0.1906)	0.855 * (0.0749)
Spouse *presence of spouse in the hh*	0.6492	1.0089 (0.034)	0.9563 (0.0773)	1.0092 (0.034)	1.1245 ** (0.0545)	0.9149 (0.0982)	1.1804 *** (0.0634)	0.9422 * (0.0341)	0.9654 (0.0836)	0.9428 (0.0341)
Spouse ×Carer	0.0986						0.7872 ** (0.0875)			
formal job characteristics										
Commute time *in minutes*	40.1240 (34.9192)	1.0014 *** (0.0004)	0.9999 (0.001)	1.0014 *** (0.0004)	1.0009 (0.0006)	0.9993 (0.0014)	1.0009 (0.0006)	1.0015 *** (0.0005)	1.0009 (0.0011)	1.0015 *** (0.0005)
employed *as opposed to self-employed or "other"*	0.8300	1.4016 *** (0.08)	1.6009 *** (0.2361)	1.3974 *** (0.0798)	1.11 (0.0877)	0.9326 (0.1772)	1.1077 (0.0876)	1.5135 *** (0.0972)	1.9915 *** (0.332)	1.5085 *** (0.097)
private sector	0.6445	0.8681 *** (0.028)	0.9324 (0.0736)	0.8694 *** (0.0281)	0.9012 ** (0.0407)	0.8951 (0.0944)	0.8998 ** (0.0407)	0.8807 *** (0.0305)	0.9766 (0.0822)	0.8828 *** (0.0306)
large organisation *50 or more workers at organization*	0.3422	1.1418 *** (0.0381)	1.1605 * (0.0961)	1.1432 *** (0.0381)	0.9998 (0.0466)	0.9675 (0.108)	1.0004 (0.0466)	1.1864 *** (0.0423)	1.1956 ** (0.1033)	1.189 *** (0.0425)
temporary work	0.0121	0.6798 ** (0.1019)	0.5144 (0.2196)	0.6779 *** (0.1017)	0.5518 ** (0.1384)	0.1571 * (0.1612)	0.5515 ** (0.1383)	0.719 ** (0.1178)	0.6814 (0.3049)	0.7165 *** (0.1175)
part-time work	0.1660	0.9138 ** (0.0391)	0.7503 *** (0.0802)	0.938 (0.0436)	0.963 (0.0596)	0.9214 (0.1306)	0.9625 (0.0596)	0.9111 ** (0.0423)	0.7138 *** (0.0836)	0.9526 (0.0479)
Carer × part-time	0.0275			0.8506 (0.091)						0.7595 ** (0.0895)
interpers. job characteristics										
Flextime regulations *"can adapt working hours within certain limits"*	0.1792	1.0737 * (0.0429)	1.0099 (0.1063)	1.0741 * (0.0429)	1.216 *** (0.0669)	1.1419 (0.1549)	1.2158 *** (0.0669)	1.0326 (0.0443)	1.0613 (0.119)	1.0334 (0.0443)
Free work time *"working hours entirely determined by yourself"*	0.1935	0.8123 *** (0.0454)	0.7295 ** (0.1055)	0.8108 *** (0.0454)	0.8864 (0.0702)	0.6678 *** (0.1313)	0.8861 (0.0702)	0.7873 *** (0.0488)	0.8375 (0.1333)	0.7858 *** (0.0487)
Days off *"can take days or holidays off"*	0.4915	1.2036 *** (0.0376)	1.1637 ** (0.0897)	1.2032 *** (0.0376)	1.1949 *** (0.0518)	1.2079 * (0.1222)	1.195 *** (0.0518)	1.1764 *** (0.0397)	1.1202 (0.0927)	1.176 *** (0.0397)
Tenure *years in the current job*	10.0928 (10.0876)	0.9945 *** (0.0019)	0.9894 ** (0.0044)	0.9945 *** (0.0019)	0.9923 *** (0.0028)	0.9852 *** (0.0059)	0.9922 *** (0.0028)	0.9961 * (0.002)	0.9941 (0.0047)	0.996 * (0.002)
Short tenure *less than a year*	0.1010	0.5923 *** (0.0334)	0.5316 *** (0.082)	0.5914 *** (0.0334)	0.6695 *** (0.0549)	0.4623 *** (0.1082)	0.6702 *** (0.055)	0.5907 *** (0.0369)	0.6274 *** (0.1042)	0.589 *** (0.0368)
Feel at home *feeling 'at home' in the organization*	0.6647	0.9212 ** (0.0326)	0.846 * (0.0744)	0.9195 ** (0.0325)	0.9954 (0.0489)	0.914 (0.1055)	0.9949 (0.0489)	0.9129 *** (0.0349)	0.8676 (0.0813)	0.9111 *** (0.0348)
Friends *having very good friends at work*	0.7429	1.1456 *** (0.0411)	1.279 *** (0.1147)	1.1309 *** (0.044)	1.1174 ** (0.0561)	1.0865 (0.1265)	1.1361 *** (0.0627)	1.112 *** (0.0432)	1.257 *** (0.1213)	1.0931 ** (0.0461)
Carer × friends	0.1150			1.0778 (0.098)			0.9186 (0.1115)			1.1023 (0.1082)
Rotate *job involves task rotation*	0.4516	1.164 *** (0.0355)	0.9945 (0.0762)	1.197 *** (0.0396)	1.1878 *** (0.0508)	1.0347 (0.1053)	1.2266 *** (0.0573)	1.1523 *** (0.038)	1.0523 (0.0862)	1.173 *** (0.0421)
Carer × rotate	0.0746			0.8414 ** (0.0663)			0.8347 * (0.0885)			0.8946 (0.0758)
job assessment										
Sick *job affects health*	0.4263	1.1948 *** (0.0576)	0.9667 (0.1163)	1.1914 *** (0.0575)	0.8974 (0.0613)	0.8163 (0.1331)	0.8969 (0.0613)	1.3788 *** (0.0707)	1.1439 (0.1458)	1.3756 *** (0.0705)
How sick? *Number of health impairments reported*	2.2343 (3.2844)	1.0902 *** (0.0078)	1.108 *** (0.0187)	1.0906 *** (0.0078)	1.0728 *** (0.0104)	1.0667 *** (0.0232)	1.0731 *** (0.0104)	1.0898 *** (0.0081)	1.1087 *** (0.0193)	1.0902 *** (0.0081)
Cond. satisf. *Satisfaction with working conditions[b]*	0.7948	0.7857 *** (0.0314)	0.804 ** (0.0763)	0.7868 *** (0.0314)	1.0116 (0.0564)	0.8871 (0.1096)	1.0153 (0.0567)	0.7077 *** (0.0299)	0.7196 *** (0.072)	0.7085 *** (0.03)
30 country dummies *+1 reference category*		-- not reported --	-- not reported --	-- (not reported) --	-- not reported --	-- not reported --	-- not reported --	-- not reported --	-- not reported --	-- not reported --
Nagelkerke R² *from the non-imputed sample regression*		0.135	0.147	0.135	0.127	0.108	0.127	0.136	0.151	0.137
N		24526	3781	24526	3781	24526	24526	3781	24526	24526
ceteri paribus effect of being a caregiver *standard error*		1.19 ***		1.2165 ***	1.2633 ***		1.4573 ***	1.1285 ***		1.1618 ***

Table 2: Work-to-Family Conflict Regressions

	mean / std. error	time-based work-to-family conflict			time-based work-to-family conflict		
		full sample	carers only	best fit	full sample	carers only	best fit
		(10)	(11)	(12)	(13)	(14)	(15)
Age	41.0957 / 11.9388	1.003 / 0.0073	0.9858 / 0.0197	1.0064 / 0.0071	1.0064 / 0.0069	0.9989 / 0.0189	1.0058 / 0.0069
Age²	1831.3890 / 1011.5420	0.9999 / 0.0001	1.0001 / 0.0002	0.9998 * / 0.0001	0.9999 * / 0.0001	1 / 0.0002	0.9999 * / 0.0001
Female	0.4959	1.1531 *** / 0.0521	1.2618 ** / 0.1486	1.0737 ** / 0.0317	1.0816 *** / 0.0293	1.0856 / 0.0762	1.0778 *** / 0.0313
Carer — caring at least 1–2x / week	0.1544	1.1406 *** / 0.0417		1.5255 *** / 0.1648	1.1222 *** / 0.04		1.3607 *** / 0.1278
Female × Carer	0.0926			1.0234 / 0.0738			1.0198 / 0.0722
Children — presence of at least 1 child < 6 yrs	0.1547	1.2316 *** / 0.0479	1.488 *** / 0.1771	1.2215 *** / 0.0495	1.2414 *** / 0.047	1.5334 *** / 0.1763	1.2362 *** / 0.0469
Carer × children	0.0154			1.1812 / 0.1377			
Spouse — presence of spouse in the household	0.6492	1.0744 * / 0.0419	0.9019 / 0.0813	1.1535 *** / 0.0376	1.1145 *** / 0.0329	0.9443 / 0.0685	1.1438 *** / 0.0366
Female × spouse	0.3051	0.9013 * / 0.0497	0.7969 / 0.1144				
Spouse × carer	0.0986			0.8534 ** / 0.0642			0.8604 ** / 0.0626
Commute time — in minutes	40.1240 / 34.9192	1.0049 *** / 0.0004	1.005 *** / 0.001	1.005 *** / 0.0004	1.0049 *** / 0.0004	1.0048 *** / 0.001	1.0048 *** / 0.0004
Sidejob — Resp. has a sidejob	0.0359	1.226 *** / 0.0852	1.2613 / 0.2073	1.2335 *** / 0.085	1.2416 *** / 0.0846	1.2923 / 0.2105	1.2428 *** / 0.0847
Private sector	0.6445	1.2696 *** / 0.037	1.2744 *** / 0.0924	1.2657 *** / 0.0367	1.2821 *** / 0.0368	1.2651 *** / 0.0898	1.2809 *** / 0.0367
Flextime regulations — "can adapt working hours within certain limits"	0.1792	0.9085 *** / 0.0332	0.9078 / 0.0904	0.9077 *** / 0.0328	0.9137 ** / 0.0326	0.8846 / 0.0854	0.9135 ** / 0.0326
Free work time — "working hours entirely determined by yourself"	0.1935	0.8607 *** / 0.0366	0.8426 / 0.0934	0.846 *** / 0.0354	0.8512 *** / 0.0342	0.7881 ** / 0.0822	0.8511 *** / 0.0342
Long hours — Respondent works more than 40 hours per week	0.3062	1.3479 *** / 0.0543	1.2951 ** / 0.1326	1.3474 *** / 0.0539	1.3509 *** / 0.0531	1.3385 *** / 0.134	1.3509 *** / 0.0531
jd_longdays — more than 10 hours a day at least once a week	0.2318	1.3109 *** / 0.053	1.3777 *** / 0.1409	1.308 *** / 0.0524	1.3155 *** / 0.0514	1.363 *** / 0.135	1.3172 *** / 0.0515
Workhours — per week	39.3922 / 13.1672	1.0247 *** / 0.0016	1.0239 *** / 0.004	1.0246 *** / 0.0015	1.0248 *** / 0.0015	1.0237 *** / 0.0038	1.0247 *** / 0.0015
Night / weekend work — days per week	3.8215 / 5.8078	1.0691 *** / 0.0028	1.0682 *** / 0.0072	1.0688 *** / 0.0028	1.0675 *** / 0.0027	1.0642 *** / 0.0069	1.0675 *** / 0.0027
Days off — "can take days or holidays off"	0.4915	0.7126 *** / 0.0201	0.6921 *** / 0.0497	0.7172 *** / 0.0201	0.7055 *** / 0.0194	0.7029 *** / 0.0491	0.7057 *** / 0.0194
Tenure — years in the current organization	10.0928	0.9962 ** / 0.0016	0.998 / 0.0039	0.9964 ** / 0.0016	0.9972 * / 0.0016	0.9983 / 0.0038	0.9972 * / 0.0016
Feel at home — feeling 'at home' in the organization [a]	0.6647	0.6318 *** / 0.0193	0.6537 *** / 0.0509	0.6307 *** / 0.0191	0.6227 *** / 0.0185	0.6307 *** / 0.0479	0.6234 *** / 0.0185
Friends — having very good friends at work [a]	0.7429	0.8849 *** / 0.028	0.7917 *** / 0.0645	0.8968 *** / 0.0303	0.8495 *** / 0.0259	0.7374 *** / 0.0577	0.8691 *** / 0.0285
Carer × friends	0.1150			0.9053 / 0.0738			0.8659 * / 0.0686
Helpful colleagues — "can get help from colleagues if needed" [a]	0.5105	0.8165 *** / 0.0225	0.7763 *** / 0.0548	0.8158 *** / 0.0223			
Sick — job affects health	0.4263	1.0829 * / 0.0477	0.9654 / 0.1065	1.0899 ** / 0.0477	1.1028 ** / 0.0474	0.948 / 0.1021	1.1042 ** / 0.0475
How sick? — Number of health impairments reported	2.2343 / 3.2844	1.1004 *** / 0.0074	1.0975 *** / 0.0173	1.0994 *** / 0.0074	1.0963 *** / 0.0072	1.1001 *** / 0.0169	1.0962 *** / 0.0072
Work overload — Not enough time to get job done	0.3071	1.6041 *** / 0.0477	2.0253 *** / 0.1544	1.5318 *** / 0.0481	1.6046 *** / 0.0458	2.0102 *** / 0.1471	1.6069 *** / 0.0459
Carer × work overload	0.0484			1.24 *** / 0.0945			
30 country dummies — +1 reference category		— not reported —			— not reported —		
Nagelkerke R² — from the non-imputed sample regression		28.7	30.5	28.5	28.3	29.9	28.3
N		23439	3612	23439	24183	3733	24183

Row group labels (left margin): personal characteristics; formal job characteristics; interpers. job charact.; job assessment.

Map 1: Caregiver → absenteeism country effects

Source: own calculations based on Parent-Thirion (2005), own illustration

Universitat de València - ERI POLIBIENESTAR.
Edificio Institutos-Campus de Tarongers. Calle Serpis, 29. 46022. Valencia.
Phone: (+34) 96.162.54.12– C.I.F. Q4618001-D
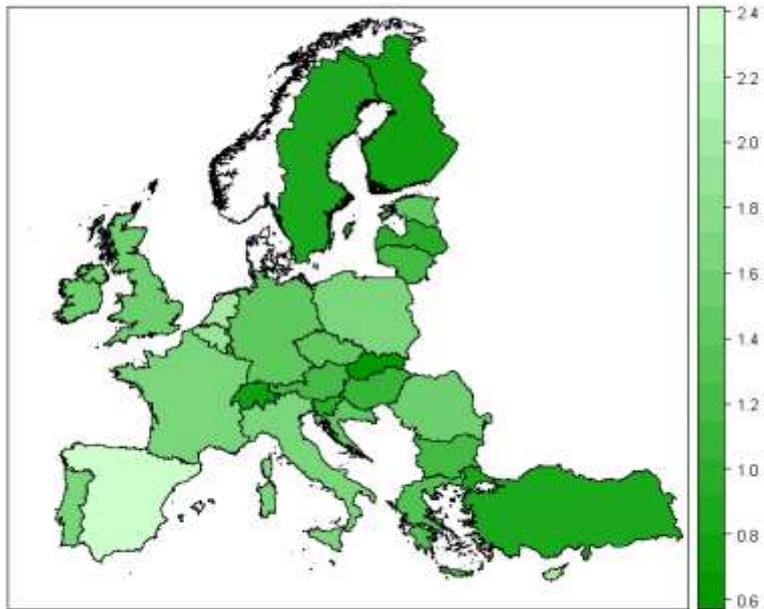Email: espanet2011@uv.es

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Map 2: Caregiver → work-to-family conflict country effects

Source: own calculations based on Parent-Thirion (2005), own illustration