



Modelling the relationships between work-to-family conflict, work and family stressors and well-being

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The current study examines three structural equation models concerning work-to-family conflict. The predictors and outcomes of work-to-family conflict pertained to family domain, represented by family stressors such as partnership disagreements; to work domain, represented by work stressors such as work demands; and to affective domain, represented by subjective well-being perception. We focus on the relationship between the three domains (work, family, and affective) and work-to-family conflict using the European Social Survey R2 (2004/2005) data. The aim of the study is to explore the bidirectional links between work-to-family conflict and selected factors: work demands, partnership disagreement and subjective well-being. Our results support the spill-over theory (Eby et al. 2010; Champoux, 1978) claiming that the domains of work and family spill over and that work stressors and family stressors can both explain work-family conflict as predictors and be explained by work-family conflict as its outcomes. The results also show reciprocal effects of the affective domain on work-to-family conflict and vice versa.

Work-to-family conflict. Work demands. Partnership disagreement. Well-being. SEM approach.

Considerable research has focused on the psychological effect of pressures from both work and family domain. There are studies confirming that the relationship between work and family domain is dynamic and reciprocal. Not only do factors in the work sphere influence family life, but family issues also have considerable effects on work life (Huang et al., 2004; Crouter, 1984; Near et al., 1980). Work-family conflict is a source of stress that many individuals experience (Carlson et al., 2000) and according to Huang et al. (2004) it has been linked to many negative outcomes in both work and family life.

The most often cited definition, by Greenhaus and Beutell (1985), describes work-family conflict as an incompatibility of the role demands. Despite the fact that "the majority of researchers in this area have examined role variables as predictors of work-family conflict" (Carlson, 1999, 236), recent research pointed out that there are other predictors of the work-family conflict than the role pressures (Michel & Clark, 2009; Carlson, 1999; Frone et al., 1997). There are numbers of variables that either influence or are influenced by work-family conflict. Carlson (1999, 236) states that "a number of different factors have been found to influence the levels of work-family conflict and individual experience". According to Carlson et al. (2000), work-family conflict influences a number of outcomes including psychological distress, job satisfaction, life satisfaction. Furthermore, Frone et al. (1992) in their model posit that: a) work-to-family and family- to-work conflict are reciprocally related; b) job and family stressors and

involvement are predictors of both work-to-family and family-to-work conflict; c) work-to-family conflict influences family distress and family-to-work conflict influences job distress.

Reflecting these findings in the field are the numerous theories, models, and hypotheses researchers have offered as explanations for these interrelationships. Spill-over models refer to a situation when the stressors from work or home exceed one's resources, the pressures associated with that role begin to conflict with one's ability to fulfil the norms associated with the other role, given that time, money, and energy are fixed. Because both work and home roles are assumed to be important to the individual, the inability to perform adequately in one or both arenas is viewed as necessarily causing conflict and/or strain.

In contrast to spill-over models, in reverse causality models a number of authors have offered explanations why high levels of work-family conflict would produce higher levels of work stress (Kinnunen et al., 2003). Reverse causality might also be explained by a variant of a strain perspective which holds that those experiencing more conflict and strain, might, in turn, evaluate components of their situation (i.e., the stressors) more negatively than would those who are not experiencing such conflict. In contrast to the spill-over models, reverse causality models treat stressors as outcomes or consequences of work-family conflict (Sikora et al. (working paper)).

The work - family interaction literature offers a number of structural models that have been advanced. According to Michel et al. (2009) those models contain three core components: 1) a set of work and family domain antecedents, 2) a combination of work domain, family domain, and life outcomes, and 3) a mediating work-family conflict construct.

Before analysing the models, a brief review of the variables included into the models follows.

Work-to-family conflict

Work-to-family conflict is one of two dimensions of work-family conflict. It can be defined as overload and work to family interference (Duxbury et al., 1994). In current literature work-to-family conflict and family-to-work conflict are identified and understood as distinct, reciprocal constructs that have independent antecedents and outcomes (Frone et al., 1997). Research has demonstrated that work-to-family conflict is primarily caused by work-related stressors and characteristics and that it predicts family-related affective and behavioural outcomes, while family-to-work conflict is caused by family-related stressors and characteristics and predicts work-related outcomes (Crompton & Lyounette, 2006; Baltes & Heydens-Gahir, 2003).

Family domain: family stressors as predictors and outcomes

Family stressors as predictors. Studies by Aryee et al. (1999) and Peeters et al. (2005) explored work-family conflict model and confirmed family conflict/demands being significantly related to family-to-work conflict as one of the predictors. In their integrative model, Michel et al. (2009) found out that family demands were

primary antecedents of family-to-work conflict. Family distress is often seen as predictor of family-to-work conflict and as outcome of work-to-family conflict (Frone et al. 1997).

Family stressors as outcomes. Frone et al., (1997, 148) explained that "high levels of work-to-family conflict lead to perceptions of elevated parental overload and family distress because work related demands or time commitments are reducing the amount of time and energy available to meet parenting and other family responsibilities". Kinnunen et al. (2003) found the positive relationship between work-family conflict and family climate, more specifically the family climate was explained by family-to-work conflict.

Work domain: work stressors as predictors and outcomes

Some authors understand work stressors as job exhaustion (Kinnunen et al., 2003). It could be described as "well-being at work concerning feelings of fatigue that develop as one's emotional energies become drained at work" (Kinnunen et al., 2003, 1675).

Work stressors as predictors. Frone et al. (1997) and Voydanoff (2004) hypothesized and confirmed that work-related (emotional) distress as a direct predictor of work-family conflict leads to increased work-to-family conflict. Same authors mention in their reciprocity approach: work distress is both an antecedent of work-to-family conflict and an outcome. Obradović & Čudina-Obradović (2009) analysed respondent's and partner's work stress as antecedents of work-family conflict. Work demands were also confirmed as direct predictors of work-home interference (Peeters et al. 2005).

Work stressors as outcomes. In line with previous studies the strongest relationship was between work-to-family conflict and job exhaustion. In their study Kinnunen et al. (2003) concluded that job exhaustion was explained by a high level of work-family conflict.

Affective domain: well-being as a predictor and an outcome

Rantanen et al. (2008) describe two ways of conceptualizing the relationship between work-family conflict and psychological well-being:

- 1) work-family conflict is seen as an antecedent of high psychological strain;
- 2) high psychological strain is seen as an antecedent of work-family conflict.

Well-being as a predictor. Study of Michel & Clark (2009) posits that negative affect directly influences work-family conflict. Several studies examined the relationship between negative emotions and work-to-family conflict where negative emotions were a significant predictor of work-to-family conflict (Stoeva et al., 2002; Bruck & Allen, 2003).

Well-being as an outcome. Williams & Alliger's (1994) research confirmed their hypothesis that juggling work and family tasks adversely affected feelings of distress and calmness: distress ratings were significantly higher and calmness ratings were significantly lower during the work-family conflict period. Also study by Parasuraman & Simmers (2001) confirmed the psychological well-being to be an outcome of work-family conflict in their model of type of employment, work-family conflict and well-being.

According to Kinnunen et al. (2003), fathers experienced more depression under conditions of high work-family conflict. They concluded that work-family conflict had the main effect on well-being.

Summing up all the stated facts, it is not clear what effects and what is affected in studying the work-family conflict. The aim of the study is to explore the bidirectional links between work-to-family conflict and the selected factors: work demands, partnership disagreement and subjective well-being.

Method

Based on the bidirectional causal interpretations of work-family conflict predictors and outcomes in this study we aim to explore the relationship and causality between work-to-family conflict, work and family stressor variables and well-being using the SEM approach, using AMOS.

We test three models. First model assumes causal flow from predictors (family stressors, work stressors and well-being) to work-to-family conflict. Second model assumes causal flow from work-to-family conflict to outcomes (family stressors, work stressors and well-being). Third model assumes correlation between work-to-family conflict and factors (family stressors, work stressors and well-being).

Despite the reversed causality in the models 1 and 2 and correlational paths in model 3 between factors, we expect all three models to be confirmed and to have acceptable fit values.

The models are based on the European Social Survey data. The European Social Survey Round 2 (ESS R2) (Jowell et al. 2004/2005) emphasises work-family issues in its rotating module. In this module work-family conflict items are focused more on the work-to-family conflict than on the family-to-work conflict. For this reason, we concentrated on this form of work-family conflict. For statistical analyses the structural equation modelling (SEM) approach was applied in AMOS.

Sample. Data from ESS Round 2 are available from 26 European participating countries, with a total sample size of 47537 respondents. Our sample consists of 12141 respondents (6354 males and 5787

females; mean age 41 years), who are currently employed and live with a partner. Data are freely available at the website <http://ess.nsd.uib.no>.

According to the theory, we identified three domains related to work-to-family conflict: well-being of respondent, work stressors represented by work demands perceived by respondent, family stressors represented by partnership disagreements perceived by respondent.

Instruments. We identified questions in the ESS questionnaire that represent the three domains: work, family and affective, and items measuring work-family conflict. The items (with Likert-type scale) and factors were as follow:

Work-family conflict, measured by 2 items: 1. How often do you find that your job prevents you from giving the time you want to your partner or family? (1- never, 5 - always); 2. How often do you find that your partner or family gets fed up with the pressure of your job? (1- never, 5 - always).

Subjective well-being of respondent, measured by 2 items: 1. Taking all things together, how happy would you say you are? (00-extremely unhappy, 10- extremely happy), 2. How often you have felt cheerful and in good spirits over last two weeks? (1- all of the time, 5- some of the time) - responses to this item were re-coded because of its opposite polarity.

Work stressors, such as work demands were measured by 2 items: Thinking about your current job, how much do you agree or disagree with the following statement: 1. My job requires that I work very hard; 2. I never seem to have enough time to get everything done in my job (1- agree strongly, 5 disagree strongly) - these items responses were re-coded because of their opposite polarity.

Family stressors, such as partnership disagreements were measured by 2 items: 1. How often do you and your husband/wife/partner disagree about how to divide housework? (01-never, 07-every day), 2. How often do you and your husband/wife/partner disagree about money? (01-never, 07-every day).

Results

Three models were created representing a different direction of causality and/or correlation between the factors. Correlations and descriptive characteristics of the items are displayed in table 1.

Table 1: Correlational matrix with factors and original variable names from the ESS data

Variable name	Item name	Mean	SD	1	2	3	4	5	6	7
Work-to-family conflict	1. jbprtfp	2.59	1.07							
	2. pfmfdjb	2.10	0.99							
	3. gdsprt	2.58	1.06	.526***						
Well-being	4. happy	7.65	1.67	-.101***	-.097***	.374***				
	5. nevdnjb	2.96	1.12	.223***	.234***	-.044***	-.004			
Work stressors	6. wrkhrd	2.39	1.00	.233***	.193***	-.032***	-.06***	.333***		
	7. dsgrhwk	2.40	1.61	.126***	.171***	-.081***	-.071***	.076***	.004	
Family stressors	8. dsgrmny	2.01	1.35	.12***	.152***	-.119***	-.152***	.041***	.025***	.498***

(1- job prevents you from giving time to partner/family, 2- partner/family fed up with pressure of your job, 3- have felt cheerful and in a good spirits in last 2 weeks, 4- How happy are you, 5- never enough time to get everything done in job, 6- job requires work very hard, 7- how often disagree with partner about how to divide housework, 8- how often disagree with partner about money)

N=12141; ***p< .001

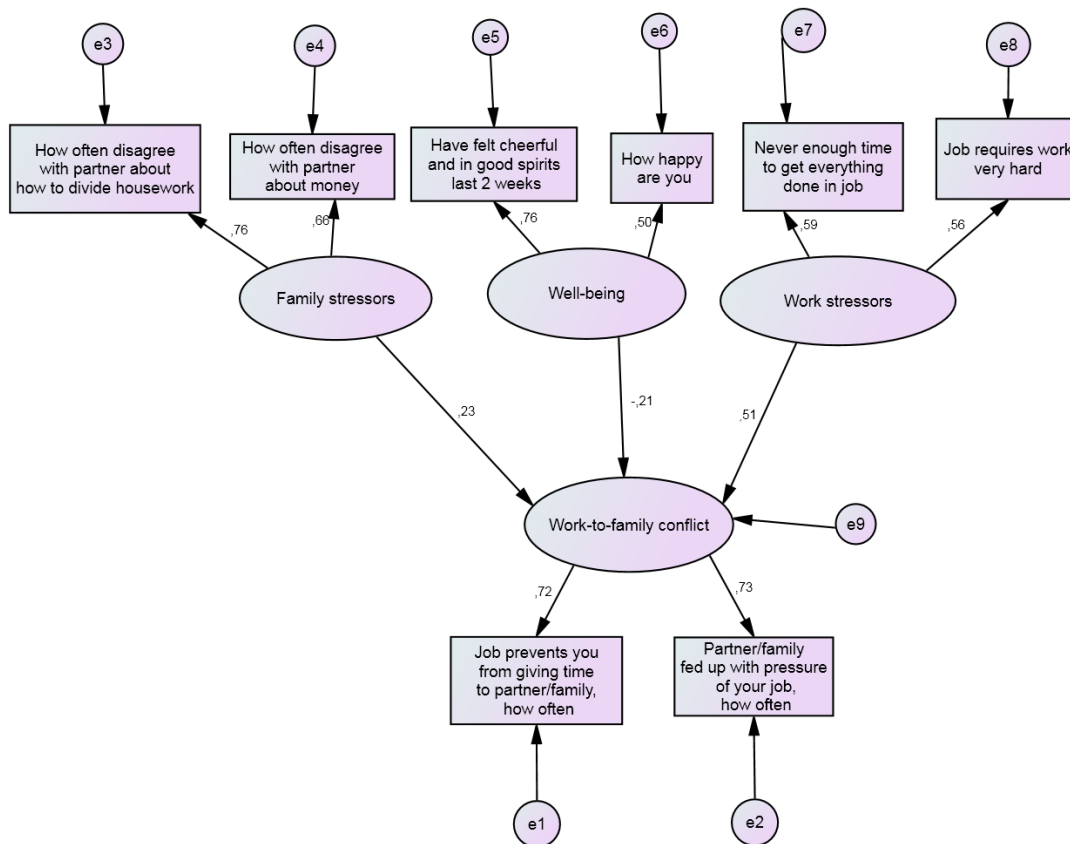
Model 1

First model assumes there is a causal direction from factors of well-being, family and work towards work-to-family conflict. It assumes that the levels of work and family stressors and respondent's well-being (as predictors) influence the severity of perceived work-to-family conflict. The model is recursive with 17 degrees of freedom. Fit measures for all three models are summarised in table 2. Values of p-close measure are lower than 0.5 in model 1 and model 3 meaning that for those model the RMSEA is “not good” in the population (also the RMSEA values in model 1 and model 3 are higher than 0.05).

Table 2: Model fit for Model 1, model 2 and model 3. GFI - goodness-of-fit index, CFI - comparative-fit index, PCLOSE - p-value for RMSEA, RMSEA - root mean square error of approximation.

	Model 1	Model 2	Model 3
GFI	.988	.992	.988
CFI	.958	.971	.958
PCLOSE	.247	.999	.247
RMSEA	.051	.043	.051

Figure 1: Model 1 - path diagram of relationships between factors Family, Well-being, Work and Conflict. Assumed causal flow from first three factors to Conflict.



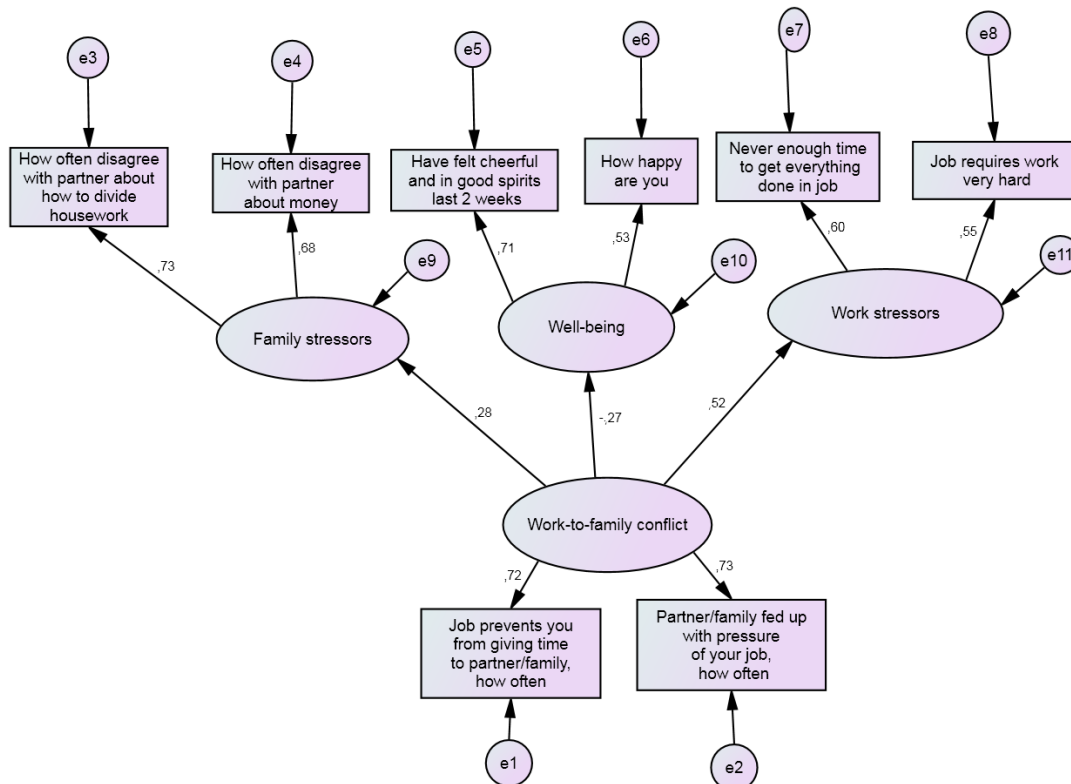
Factor loadings of the first model are displayed in figure 1. According to the findings we can confirm, that both work stressors (such as work demands) and family stressors (such as partnership disagreements) influence the perception of work-to-family conflict in a positive direction - the higher the level of stressor is reported the higher is the level of perceived work-to-family conflict. The opposite was found in the link between well-being and the perception of work-to family conflict, specifically the higher the level of well-being was reported by respondents the lower was the level of perceived work-to-family conflict.

This pattern repeats itself throughout other models as well as with the strongest relation between work stressors and work- to-family conflict perceived by respondent. Of the studied factors, well-being shows the weakest relationship with work-to-family conflict.

Model 2

Second model (figure 2) assumes reversed causality in comparison to model 1. It assumes that the way respondents perceive their work-to-family conflict influences their perception of work and family stressors and well-being (as outcomes). The model is recursive with 17 degrees of freedom.

Figure 2: Model 2 - path diagram of relationships between factors Family stressors, Family stressors and Well-being and Work-to-family conflict. Assumed causal direction from Conflict to three factors.



Factor loadings of the second model are displayed in figure 2. According to these findings we can confirm, that both work stressors (such as work demands) and family stressors (such as partnership disagreements) are influenced by the perception of work-to-family conflict in a positive way - the higher the level of perceived work-to-family conflict the higher is the level of both stressor. The opposite was found in the link between the level of perceived work-to-family conflict and well-being specifically, the higher was the level of perceived work-to-family conflict the lower level of well-being was reported by respondents.

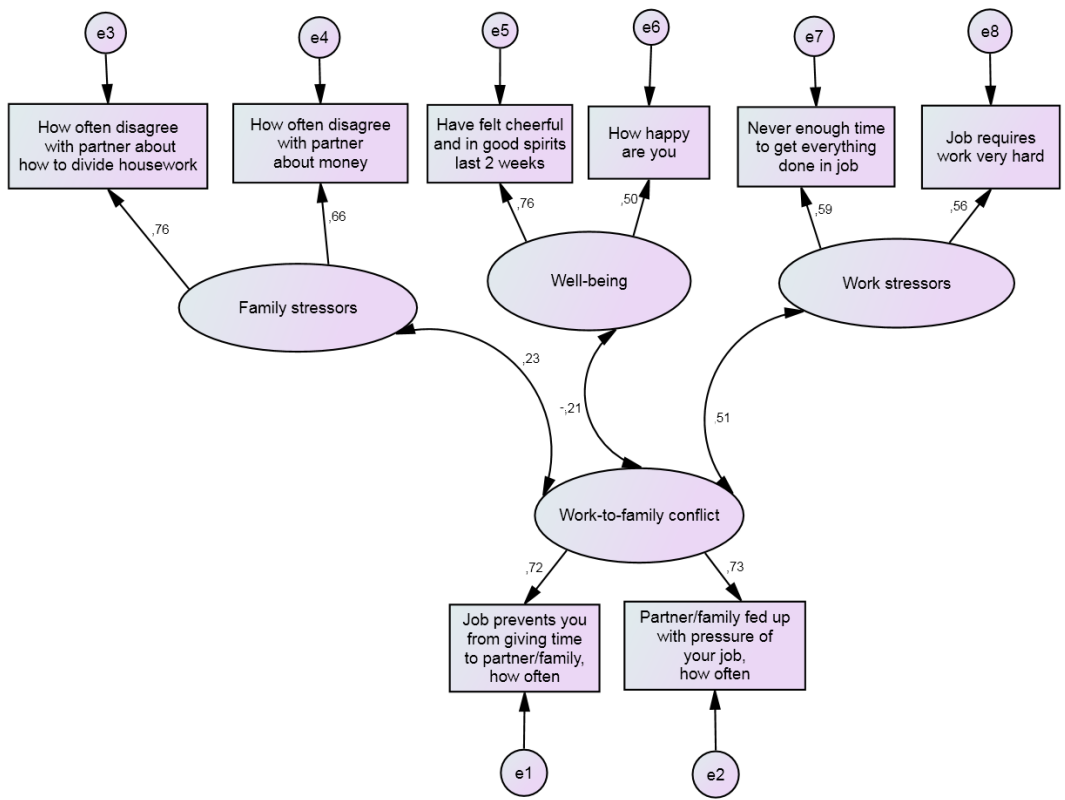
As in the previous model, the strongest factor loading was between conflict and work and the weakest between conflict and well-being. The differences between loadings were more moderate than in the previous model.

Second model provides a slightly better fit to data and is statistically significant in all studied measures (see table 2).

Model 3

Third model assumes that all the factors are mutually correlated. The model is recursive with 17 degrees of freedom.

Figure 3: Model 3 - path diagram of relationships between factors Family, Well-being, Work and Conflict. Assumed correlation between three factors and Conflict.



Values of correlation ties between factors in the third model are displayed in figure 3. Computed values show a similar pattern to the two previous models. The correlation between work-to-family conflict and work stressors is the strongest, the one between work-to-family conflict and well-being is the weakest.

Because the results of the previous two models were quite similar, we expected that substituting causal relationships with correlations might also show good results. Correlation model shows good-to-moderate results for the fit parameters (see table 2).

Discussion

Our study confirmed three basic factors related to work-family conflict mentioned in the literature - family characteristics (in our study represented by family stressors - partnership disagreement), work characteristics (represented by work stressors - work demands) and psychological characteristics of person (represented by well-being).

In accordance with theory (Frone et al., 1997; Michel et al., 2009), our results confirm the strongest link between the work domain characteristic and the factor of work-to-family conflict.

First model suggests that besides work stressors that are most often mentioned as predictors of the work-to-family conflict, family stressors and well-being of the respondent may act this way as well. Second model shows that besides family stressors that are most often mentioned as outcomes of work-to-family conflict, work stressors and well-being of the respondent may also be the outcomes. Third model supports the spill-over theory which suggests that all life domains and work-to-family conflict are mutually interconnected and their effects work both ways. From computational point of view (Stelzl, 1986, Lee, Hershberger, 1990) first and third models are equivalent. Structural equation modelling cannot, in this case, differentiate between causal and correlational links.

Our results show moderate differences between models assuming different kinds of relationships among factors. Although model with causality running from factor of conflict towards other factors shows the best fit, two remaining models are valid as well and their fits are also good (models are not nested and therefore we could not perform a Wald test or similar tests to calculate the difference between model fits). We think this may suggest there is in reality an interconnection between factors rather than clear causality. Perceived work-family conflict not only influences how we perceive work and family characteristics and our well-being but is also influenced by these perceptions.

All three models presented in current study are not consistent with past research that showed domain-specific predictors were related to different directions of work-family conflict. Our results suggest bi-directional causality of work and family stressors, well-being and work-to-family conflict. All the models showed similar results and had acceptable fit values. We propose that a work-family conflict is influenced by characteristics of work, family and respondent, but at the same time the intensity of conflict influences work and family perception and well-being of the respondent.

We acknowledge that the present study has some limitations. A first drawback concerns the nature of big surveys data. The survey data enables an exploration of social issues or research problems on the large samples (Steiber, 2009; Fedakova et al. 2008), but in order to understand the problem correctly a more in-depth approach is required. Detailed analyses are needed to verify findings that have arisen from this study.

A second limitation could be that our study focuses just on the one direction of work-family conflict, work-to family conflict specifically. The concept of work-family conflict is bi-directional. Therefore similar exploration of family-to-work conflict is needed. But maybe survey data are not the suitable source for such detailed analysis. As Pichler (2009) comments on that: "surveys put employment-related explanations of work-life balance to the foremost, while compromising on life".

A third limitation is that the stressors and well-being variables were measured by only two items and they do not cover general but rather specific framework of those variables. This is the fact that should be taken into account for the result interpretations.

We agree with the authors Čudina-Obradović & Obradović (2001) who claim, that it is important for the future research of work-family conflict to find out whether individuals spill over the negative aspect from one domain to all other life domains. In this sense it is of the highest importance to understand the

mechanisms that underline the relationship between both forms of work-family conflict, to identify their key predictors and outcomes.

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