Like ships passing in the night? Nonstandard work schedules and spousal satisfaction in Finland, the Netherlands and the United Kingdom

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Abstract

This study examined the associations of work schedules and spousal satisfaction among Finnish (n = 347), Dutch (n = 304) and British (n = 337) parents. In addition to comparing parents with nonstandard schedule with parents in regular day work, the study examined separately the roles played in spousal satisfaction of morning, evening, night and weekend work and other working time-related variables (working hours, changes in and influence over one’s work schedules and spouse’s work schedule). The three-country data were analyzed using structural equation modeling with a multigroup procedure in Mplus. Little evidence for negative associations of work schedules and related factors with spousal satisfaction was found among the present European employees. No between-country differences were found in the examined associations. The quantitative analyses were supplemented with content analysis of parents’ descriptions of the experienced effects of their working times on their spousal relationship. Parents described their working times mostly as having a negative influence on their possibilities of being together, organization of daily life, psychological and physiological reactions and spousal communication. Some, however, also mentioned benefits and finding solutions to problems related to their working times.

Key words: content analysis, cross-cultural, nonstandard working times, spousal satisfaction, structural equation modeling, work schedules
1. Introduction

Working spouses spend a considerable proportion of their time at work. One of the aspects of work affecting the lives of spouses is the scheduling of work, that is, when the work is done. This frames family timetables, rhythms and experiences (see e.g., Presser 2003; Wright, Raley & Bianchi 2008). When working outside so-called office hours, employees may find themselves in a situation where their schedules are often out of sync with the timetables of their partners, children and society. In contrast to the standard 8 am to 4 pm (or 9 am to 5 pm) Monday to Friday working day, nonstandard work schedules refer to work times that fall outside these hours (e.g., Presser 2003).

This study examined whether working nonstandard work schedules is associated with spousal satisfaction. The study extends the existing research literature, which has mainly been conducted in the US, by investigating these phenomena in three European countries: Finland, the Netherlands and the United Kingdom. The study used a dataset that oversamples the proportion of nonstandard workers and thus enables comparisons between different types of nonstandard work schedules, as suggested by Presser (2003, 2004; see also Maume & Sebastian 2012). The study also took into account the multidimensional nature of working time and examined the roles of other work time-related factors, namely, changes in and influence over one’s work times and one’s partner’s work schedules. In addition to quantitatively examining whether connections exist between different aspects of working time and spousal satisfaction, this study addressed the qualitative question of how. Namely, the study examined what meanings parents attribute to their working times from the viewpoint of their spousal relationships. The study focused on workers with children, whose spousal relationship is mingled with parental duties.

1.1 Earlier research on the associations between work schedules and spousal relationship well-being

Research on how nonstandard work schedules affect family life has mainly been atheoretical. Grzywacz (2016), however, identifies four distinct, albeit interrelated, frameworks for considering the possible impacts of nonstandard work schedules on the balance of work and family life. Although originally created to understand the mechanisms relating to work-family reconciliation, these frameworks may also increase understanding on the effects of working time on spousal well-being.

According to Grzywacz (2016), the effects of nonstandard work schedules on family life may be related to disturbed circadian rhythm and its physiological consequences (e.g., impaired sleep; biobehavioral framework) and/or specific psychological costs of working nonstandard times (e.g., irritability, distractedness and social detachment; social-cognitive framework). Nonstandard working times may also affect family life through the physical absence from home (social disruption framework) and an individual’s beliefs that s/he cannot be a good spouse or parent because of her/his working times (socialization framework). These beliefs may act as a self-fulfilling prophecy, leading to social withdrawal or other harmful behavior. Such consequences may cause individuals to feel inadequate and una-
ble to meet their family responsibilities. These frameworks all share the assumption that the consequences of work at nonstandard times are mainly negative in nature.

Earlier empirical research findings on the associations of nonstandard working times and family life accord with the above-mentioned theoretical frameworks, especially the biobehavioral, social-cognitive and social disruptive frameworks. Nonstandard work times are known to have negative consequences for employees’ mental and physical health and to disturb the quantity and quality of sleep (Peruzzi et al. 2007; Totterdell 2005; Vogel et al. 2012). Nonstandard work times also affect parents’ time use. Parents working nonstandard times are known to protect their time with children at the cost of spousal and personal time (Wight et al. 2008; see also Gracia & Kalmijn 2016). It is thus unsurprising that previous studies have found engagement in this type of work to be linked to an increased probability of relationship break-down (e.g., Presser 2000; Täht 2011; White & Keith 1990) and diminished relationship quality (e.g., White & Keith 1990). The longitudinal study by Jekielek (2003) further confirmed that nonstandard work schedules are a cause of deterioration in relationship quality over time. However, other studies suggest that working nonstandard work schedules is associated with a diminished gender gap in the division of housework and parenting (Barnett & Gareis 2007; Presser 2003), a finding which could positively affect the spousal relationship.

This overall picture of the effects of nonstandard work becomes more complex when account is taken of the type of nonstandard work performed. Research suggests that working evenings and nights and, especially for women, rotating or varying shifts seem to be most harmful types of nonstandard work for spousal relationship quality or stability (Davis et al. 2008; Kalil, Ziol-Guest & Epstein 2010; Maume & Sebastian 2012; Mills & Täht 2010; Perry-Jenkins et al. 2007). Perry-Jenkins and colleagues (2007) propose that rotating shifts may be harmful for family life because they make it difficult to establish regular routines. In addition to negative associations between night work and rotating or varying shifts, Täht (2011; see also Mills & Täht 2010) found weekend work to be a risk for the quality and stability of spousal relationships among Dutch couples.

The diversity of research findings on the effects of different types of nonstandard work led Presser (2003, 2004) to emphasize the need to compare schedule types rather than examining nonstandard work as a unified phenomenon. Earlier studies have predominantly treated nonstandard work as a set of exclusion categories (e.g., evening work, rotating shifts, and regular day work) and defined a person’s type of work schedule as the schedule most frequently worked by that person. In practice, however, the boundaries between standard day work and nonstandard work are blurred (see also, Grzywacz 2016). Dunifon, Kalil, Crosby, Sy and DeLeire (2013) found that half of the participating mothers worked only either nonstandard or standard schedules, whereas other half reported that they worked both standard and nonstandard working hours. Moreover, Eurostat (2014) statistics show that a notable proportion of European employees occasionally work evenings, nights and weekends. Consequently, a study procedure that obliges a participant to describe her or his work situation by selecting only one type of work schedule may not reflect reality.

Several other factors also introduce variability into parents’ work schedules. For example, working long hours may complicate spousal and family life (see Hostetler et al. 2012). On the other hand, the negative influences of nonstandard work may not be pre-
sent when the employee has control over her or his nonstandard work times (Jekielek 2003; see also Pedersen & Jeppesen 2012). Experiencing changes in work schedules is a central feature of varying and rotating work times, which, as already stated, is linked with challenges in spousal relationships. Also, as Craig and Brown (2017) state, “time is both an individual and a family resource” (p. 225). This means that in dual-earner families, the partner’s type of work schedule may also influence spousal experiences. Davis and colleagues (2008) found that individuals reported greater marital instability when one or other partner worked nights. In contrast, both Mills and Täht (2010) and Perry-Jenkins and colleagues (2007) found that partnership quality was linked only with the individual’s own and not her or his partner’s work schedules.

If, as the current literature suggests, the impacts of nonstandard work may be highly individual and vary along many dimensions of work characteristics, a more qualitative approach is called for. Such an approach could reveal, for example, whether and, if so, how individuals with similar working time arrangements perceive their situation differently, for example, as either a problem or a benefit.

1.2 Work and family in Finland, the Netherlands and the United Kingdom

Nonstandard working times are widely prevalent in Europe, including in Finland, the Netherlands and the United Kingdom (Eurostat 2014). For example, evening work is done at least sometimes by more than half of Finnish and Dutch men, whereas more than half of Dutch men work on Saturdays. Despite the high prevalence of nonstandard work schedules in Europe, most of what is known about the impact of work schedules in family life is based on studies conducted in the US context. This study focuses on parents in three European countries with different working time practices, care policies and welfare regimes. Finland represents a social democratic, the Netherlands a corporatist and the UK a liberal welfare regime (Esping-Andersen 1990).

Finland has high rates of maternal employment and full-time work, although the number of weekly working hours is below the European mean (OECD 2014). With respect to nonstandard working times, shift work is more common among mothers in Finland than elsewhere in Europe (Eurostat 2014). However, the life of Finnish families with nonstandard work schedules is facilitated by a broad range of social security measures (Forsberg 2005; Pfau-Effinger 2004). The accessibility of high-quality municipal early childhood education and care is guaranteed by law, and flexibly scheduled early childhood education and care for children whose parents work nonstandard schedules is widely available (Kröger 2011; Rönkä et al. 2019).

Many mothers of young children also work in the Netherlands (OECD 2014), where part-time work is largely supported by the state as a way of reconciling work and parenthood (Pfau-Effinger 2004), and thus Dutch mothers, especially, and fathers work part-time more often than their European counterparts (OECD 2014). Public childcare is widely available in the Netherlands, some centers having extended opening hours, and is largely subsidized by a state childcare allowance (De Schipper et al. 2003; Statistics Netherlands 2014). Given the part-time working culture and the value placed on home-based care for children, child care in the Netherlands is commonly part-time only (Kröger 2011).
with “tag-team parenting” and parental working time desynchronization as alternative strategies for Dutch families (Mills & Täht 2010).

In the United Kingdom, the maternal employment rate is slightly below the EU average and clearly lower than in the two other countries studied here (OECD 2014). The UK, with its liberal regime, favors unregulated markets and individual responsibility for work-family reconciliation (Abendroth & Den Dulk 2011). The costs of childcare services for families in the UK are high, and the average number of hours children attend public childcare services are very low (Kröger 2011).

Although these cross-country differences do not provide precise information on the impact of work schedules on spousal satisfaction in these three countries, they illustrate the considerable diversity in the spousal life of parents with nonstandard schedules. For example, in Finland, where families working nonstandard schedules are supported by the availability of public, flexibly scheduled early childhood education and care, the full-time dual-earner model may put pressure on the spousal relationship. In the Netherlands, parental part-time work and flexible work arrangements encourage parents to take turns in parenting; however, this may also diminish couple time. In the UK, while the home-mother culture may ease work-family reconciliation, parents may feel they lack institutional support for their family life.

1.3 This study

This study contributes to the literature on the associations of work schedules and spousal satisfaction by examining parents in three European countries, utilizing both multifaceted measures of work schedules and parents’ descriptions on experienced effects of their working times. The following questions were addressed:

Research question 1: How are parents’ work schedules associated with their evaluations of spousal satisfaction? In addition to investigating the associations of work schedules and spousal satisfaction by comparing those who work nonstandard schedules and those in regular day work, the study examined in more detail whether different amounts of work performed during early mornings, evenings, nights and weekends is associated with spousal satisfaction.

Hypothesis 1: In all three countries, we expected working nonstandard schedules, especially working nights, to be connected with lower spousal satisfaction than working a regular day-work schedule. Due to the conflicting and weak links found in previous research, we expected to find only weak associations.

Research question 2: How are other work time-related factors associated with spousal satisfaction?

Hypothesis 2: We hypothesized that, in all three countries, working more hours, having less influence on and experiencing more changes in one’s work schedules and having a partner with a nonstandard work schedule would be associated with low spousal satisfaction.

Research question 3: How do parents describe the experienced effects of their working times on spousal satisfaction?

Hypothesis 3: We expected parents’ descriptions to overlap but also go beyond Grzywacz’s (2016) frameworks on the impact of nonstandard working time on family life.
In addition to parents attaching negative meanings to nonstandard schedules we expected to find parents attaching positive meanings to working non-standard hours, as findings on, for example, tag-team parenting (see Mills & Täht 2010) suggests that nonstandard work schedules may be well suited to the needs of some families. The hypothesis was also based on the conflicting findings earlier reported on the link between work schedules and spousal life.

Research question 4: Do the associations between work schedules and other work time-related factors and spousal satisfaction differ between the Finnish, Dutch and British parents?

In the absence of previous research comparing European countries and owing to the complexity of the various country-specific aspects that could influence the associations between work schedules and spousal satisfaction, we set no specific hypotheses on cross-country differences in these associations.

2. Method

2.1 Data collection

The data of the present study were drawn from data collected for the Families 24/7 research project investigating nonstandard work schedules from the perspectives of parents, children and day care personnel in Finland, the Netherlands and the UK. The project focused on families with children under age 13. In addition to parents working so-called nonstandard schedules, web-questionnaire data were also collected from parents working in regular day work to enable comparison between the two groups. In all three countries, participants were recruited through work organizations, childcare centers, trade unions and word of mouth. In contrast to the Netherlands and the UK, almost all the child care centers in Finland involved in the study had extended hours or operated 24/7 (i.e., flexibly scheduled early childhood education and care centers), and almost all the parents of the families using these day care centers worked a nonstandard schedule. Consequently, the recruitment process reached more workers with a nonstandard schedule in Finland than in the other two countries. To be selected for the subsample used in this study, participants were required to have a heterosexual (cohabiting or marital) spousal relationship and to be employed. Applying these selection criteria resulted in a data set of 988 participants.

Participant background information is presented in Table 1. As described later, the analyses were controlled for these between-country differences.

Owing to the recruitment procedures used, evaluation of the survey response rate was not possible. For example, day care centers do not supply information about their client families, and the exact number of employees who have children aged 0–12 years is not reported by work organizations or trade unions. Thus, evaluation of the number of parents who received information about the survey but declined to participate could not be performed.
Table 1: Background information on the Finnish, Dutch and British participants

<table>
<thead>
<tr>
<th></th>
<th>Finns</th>
<th>Dutch</th>
<th>British</th>
<th>Difference test</th>
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<tr>
<td></td>
<td>(n = 347)</td>
<td>(n = 304)</td>
<td>(n = 337)</td>
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<td>M (SD) or %</td>
<td>M (SD) or %</td>
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<tr>
<td><strong>Background variables</strong></td>
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<tr>
<td>% of females</td>
<td>74.64 (5.67)</td>
<td>86.18 (5.29)</td>
<td>81.60 (5.75)</td>
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<tr>
<td><strong>χ²(2) = 14.14, p = .001</strong></td>
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<tr>
<td>Age in years</td>
<td>35.72 (5.67)</td>
<td>35.54 (5.29)</td>
<td>37.97 (5.75)</td>
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<tr>
<td><strong>F(2,972) = 19.11, p &lt; .001, UK &gt; FIN, NL</strong></td>
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<tr>
<td>% of tertiary education</td>
<td>41.91 (5.78)</td>
<td>71.29 (5.10)</td>
<td>79.34 (5.60)</td>
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<tr>
<td><strong>χ²(2) = 113.92, p &lt; .001</strong></td>
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<tr>
<td>% of married</td>
<td>72.91 (5.78)</td>
<td>72.70 (5.10)</td>
<td>78.04 (5.60)</td>
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<tr>
<td>Length of spousal relationship in years</td>
<td>11.25 (5.78)</td>
<td>11.69 (5.10)</td>
<td>12.59 (5.60)</td>
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<tr>
<td><strong>F(2,977) = 5.14, p = .006, UK &gt; FIN</strong></td>
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<tr>
<td>Number of children at home</td>
<td>1.98 (0.92)</td>
<td>1.85 (0.88)</td>
<td>1.76 (0.72)</td>
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<tr>
<td><strong>F(2, 986) = 5.89, p = .003, FIN &gt; UK</strong></td>
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<tr>
<td>Age of youngest child in years</td>
<td>3.94 (2.50)</td>
<td>2.48 (2.55)</td>
<td>3.87 (2.91)</td>
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<tr>
<td><strong>F(2, 980) = 30.30, p &lt; .001, FIN, UK &gt; NL</strong></td>
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<tr>
<td>Financial situation (0 = worst, 10 = best)</td>
<td>5.61 (2.15)</td>
<td>6.39 (1.86)</td>
<td>5.34 (2.13)</td>
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<tr>
<td><strong>F(2,980) = 21.77, p &lt; .001, NL &gt; FIN, UK</strong></td>
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<tr>
<td>Work schedule</td>
<td></td>
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<tr>
<td>% with nonstandard work schedule</td>
<td>71.01 (5.78)</td>
<td>30.00 (5.10)</td>
<td>24.10 (5.60)</td>
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<tr>
<td><strong>χ²(2) = 177.82, p &lt; .001</strong></td>
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<tr>
<td>Morning work</td>
<td></td>
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<tr>
<td>0 times / month</td>
<td>54.39 (5.78)</td>
<td>81.61 (5.29)</td>
<td>74.24 (5.75)</td>
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<tr>
<td><strong>χ²(4) = 75.69, p &lt; .001</strong></td>
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<tr>
<td>1–2 times / month</td>
<td>12.28 (5.10)</td>
<td>8.36 (2.55)</td>
<td>12.42 (2.91)</td>
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<tr>
<td>&gt;2 times / month</td>
<td>33.33 (5.78)</td>
<td>10.03 (5.10)</td>
<td>13.33 (5.60)</td>
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<tr>
<td>Evening work</td>
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<tr>
<td>0 times / month</td>
<td>16.91 (5.78)</td>
<td>32.11 (5.29)</td>
<td>27.68 (5.75)</td>
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<tr>
<td><strong>χ²(4) = 66.21, p &lt; .001</strong></td>
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<tr>
<td>1–2 times / month</td>
<td>17.20 (5.10)</td>
<td>33.44 (2.55)</td>
<td>26.79 (2.91)</td>
<td></td>
</tr>
<tr>
<td>&gt;2 times / month</td>
<td>65.89 (5.78)</td>
<td>34.45 (5.10)</td>
<td>45.54 (5.60)</td>
<td></td>
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<tr>
<td>Night work</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>0 times / month</td>
<td>63.85 (5.78)</td>
<td>76.43 (5.29)</td>
<td>70.21 (5.75)</td>
<td></td>
</tr>
<tr>
<td><strong>χ²(4) = 18.65, p = .001</strong></td>
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<tr>
<td>1–2 times / month</td>
<td>11.95 (5.10)</td>
<td>11.45 (2.55)</td>
<td>13.98 (2.91)</td>
<td></td>
</tr>
<tr>
<td>&gt;2 times / month</td>
<td>24.20 (5.78)</td>
<td>12.12 (5.10)</td>
<td>15.81 (5.60)</td>
<td></td>
</tr>
<tr>
<td>Number of weekend shifts / month</td>
<td>3.00 (2.25)</td>
<td>1.20 (1.79)</td>
<td>1.46 (2.06)</td>
<td></td>
</tr>
<tr>
<td><strong>F(2, 967) = 73.76, p &lt; .001, FIN &gt; NL, UK</strong></td>
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</tr>
</tbody>
</table>
Table 1: Background information on the Finnish, Dutch and British participants (continued)

<table>
<thead>
<tr>
<th>Other work time variables</th>
<th>Working hours per week</th>
<th>% having influence on schedules</th>
<th>% experiencing changes in schedules</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>37.10 (8.35)</td>
<td>44.71</td>
<td>37.50</td>
</tr>
<tr>
<td></td>
<td>30.39 (8.79)</td>
<td>68.60</td>
<td>12.12</td>
</tr>
<tr>
<td></td>
<td>36.21 (10.87)</td>
<td>75.60</td>
<td>34.94</td>
</tr>
</tbody>
</table>

Spouse’s work schedule (only for those with an employed spouse)

| % of spouses with nonstandard schedule | 52.67 | 22.13 | 28.67 |

Note: Effects were tested with ANOVAs and Tukey’s post-hoc tests (continuous variables) and crosstabulations, χ²-tests and adjusted standardized residuals (categorical variables)

2.2 Measures

The questionnaire was prepared in English. In the Finnish and Dutch questionnaires, questions for which official translations did not already exist were back-translated. In the back translations, the English version was first translated into Finnish/Dutch by the research team and then back into English by an independent official translator.

Relationship satisfaction. Spousal relationship quality was assessed from the perspective of spousal satisfaction and measured using a four-item version of the Couple Satisfaction Index (CSI) developed by Funk and Rogge (2007). For each item (“Please indicate the degree of happiness, all things considered, of your relationship”) a 7-point scale from 0 (extremely unhappy) to 6 (perfect) was used, whereas with the three other items (“I have a warm and comfortable relationship with my partner”; “How rewarding is your relationship with your partner?”; “In general, how satisfied are you with your relationship?”) a 6-point scale (0 = not at all/not at all true, 5 = completely/completely true) was used. In Graham and Diebels’s (2011) reliability-generalization meta-analysis, the CSI proved to be a promising measure, showing a mean α of .94. In the present study, αs for the composite score were .95 (FIN), .88 (NL), and .95 (UK).

Work schedules. Work schedules were measured in two ways. First, participants’ self-identified work schedule was measured with the question “What is your working time pattern?” The original seven response alternatives were dichotomized into regular day work schedule (= 0) and nonstandard schedule (= 1; including evening/night/morning work, irregular work, shift work and other work schedules). Second, participants were asked how often they worked during specific hours of the day or on specific days per month. The questions measuring evening and night work were drawn from the European Working Conditions Survey 2010 (EWCS; Eurofound 2010). For evening work, the question was
“How many times a month do you work (including overtime work) in the evening, for at least 2 hours (between 18.00 and 22.00)?” Working nights was similarly measured with the time frame 22.00 to 05.00 and morning work with the time frame 05.00 to 07.00). The response options were never (= 1), once (= 2), twice (= 3) and more than twice (= 4). In the present analyses, the categories once and twice were combined. As morning, evening and night work were each measured with three ordinal categories (0 times/month, 1–2 times/month, more than 2 times/month), two dichotomous variables were created for each of these types of nonstandard work time. The reference category was 0 times/month. To measure weekend work, the answers to the questions on Saturday and Sunday work (“How many times on average a month do you work on Saturdays (Sundays)” (EWCS; Eurofound 2010) were summed.

Other work time-related variables. The question on working hours was “How many hours do you normally work a week in your main job, including any paid or unpaid overtime (regardless of your contracted hours)?”. Influence over one’s work schedules was measured with a structured question: “How are your working time arrangements set?”. For the purposes of this article, the response option They are set by the company /organization with no possibility for changes was coded as 0 and the other options (I can choose between several fixed work schedules determined by the company /organization, I can adapt my working hours within certain limits [e.g. flexitime] and My working hours are entirely determined by myself) as 1. In addition, to evaluate changes in work schedules, participants were asked “Do changes to your work schedule occur regularly?” (1= yes, 0= no).

The variable measuring spouse’s work schedule included those whose spouse was employed, that are, dual-earners. The question and response categories were similar to those on the participant’s own work schedule. The analyses did not include participants with unemployed or self-employed spouses as the number of these participants was relatively low (spouse unemployed: FIN n = 38, NL n = 5, UK n = 23; spouse self-employed: FIN n = 39, NL n = 42, UK n = 30).

Background variables. Information about several background factors was gathered with questionnaires: gender (1 = woman, 0 = man), participant’s age in years, highest education (1 = tertiary, 0 = lower than tertiary), marital status (1 = married, 0 = not married), length of the spousal relationship in years, number of children living at home, and age of the youngest child in years. Self-rated financial situation of the family was elicited with the question “How would you rate your family’s financial situation these days?” Answers were given on an 11-point scale from the worst possible financial situation (= 0) to the best possible financial situation (= 10).

Qualitative open-ended question on the experienced effects of working times on the spousal relationship. All participants irrespective of their work schedules were asked the open-ended question “How do the working hours of you or your spouse affect your spousal relationship?” The answers given by the Dutch participants were translated into English by a professional translator. Invalid answers were removed from the analysis (no answer or dash n = 277; unclear answer n = 11, answer clearly not related to working times n = 17), yielding a total of 683 valid descriptions. Of these, 64 (9.37%) directly stated that working times had no effect on the spousal relationship and hence were excluded from the analyses.
2.3 Statistical Analyses

Multigroup procedure in structural equation modeling (SEM) was used to analyze the data from all three countries. The analyses were conducted with the Mplus statistical package (version 7.11.; Muthén & Muthén 2004). The estimation method used was MLR, which produces maximum likelihood parameter estimates with standard errors and a chi-square test statistic that are robust to the nonnormality and nonindependence of observations (Muthén & Muthén). Model fit was assessed using chi-square, Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR). Nonsignificant chi-square p-values, RMSEA with values ≤.06, SRMR with values ≤.08 and TLI with values ≥.95 indicated good model fit (Hu & Bentler 1999). The significance of the differences in chi-square values between the nested models was evaluated using a scaled chi-square difference test (Satorra & Bentler 1994).

The analysis was started by testing the invariance of the latent variable. When comparing different sociocultural groups (e.g., countries) in psychological constructs, similarity in the measurement level of the latent constructs in each group is a prerequisite for meaningful comparisons (Little 1997; Milfont & Fischer 2010). For this purpose, the measurement models for couple satisfaction were first estimated separately for each of the three countries to examine whether the proposed factor structure fits the empirical data for each group. Next, to test metric invariance, a freely estimated (i.e., no requirements for invariant loadings) multi-group model was compared with the model in which the item loadings were constrained to be equal between the groups using the Satorra-Bentler chi-square difference test.

To answer RQ1 and RQ2, exogenous variables were added to the model in a stepwise procedure. In step 1 the background variables, in step 2 the dichotomous, self-identified work schedule variable, in step 3 the other work schedule variables, and in step 4 the other work time-related variables were added to the model. At each step, exogenous variables with nonsignificant (using $p < .10$ as a limit here) path coefficients in all three countries were omitted from the analysis before proceeding to the next step. To answer RQ 4, invariance of the path coefficients between the countries was tested with the Satorra-Bentler test. Finally, variables with nonsignificant path coefficients (using $p < .05$ as a limit here) in all three countries were omitted from the final model.

The analysis on the associations of spouse’s work schedule with spousal satisfaction (RQ2) was only performed for parents with an employed spouse, that is, participants with a spouse who did not work or was self-employed were excluded from this analysis. The dichotomous variable of spouse’s work schedule was included in the above-mentioned unconstrained model in step 5. Country differences in this association (RQ4) were tested with a procedure similar to that described above.

2.4 Analysis of the qualitative data

Content analysis was applied to the open-ended questionnaire data, utilizing Grzywacz’s (2016) frameworks where applicable. Data were reviewed to identify two aspects, content and appraisal. First, two researchers independently reviewed the data to identify relevant
contents of each description and to group these contents into overarching themes. Second, the data were also reviewed to identify how parents evaluated the impact of working time, that is, to identify appraisals. For example, the content of the description “My spouse works long hours, participates little in domestics” (id 562, a British mother) would be “organization of daily life” and the appraisal “negative”.

The researchers then met to discuss and compare their tentative versions of the content themes and appraisals and settled on the final versions presented in the Results section. The data were then quantified by coding the descriptions by both their identified contents and appraisals. Both content and appraisal were treated as non-exclusive, that is, several contents and several appraisals could be coded for each description. Data were coded by two researchers and in cases of disagreement the researchers reached consensus through discussion.

Cross-tabulations were used to compare parents with different work schedule situations in the family (i.e., both spouses in regular day work vs. at least one partner with non-standard work schedule; this analysis included dual-earners only) and parents from different countries in the prevalence of specific contents and appraisals.

3. Results

3.1 Preliminary analyses: Structure of the CSI in the three countries

Among the Finnish, British and Dutch samples, all the items loaded significantly on the latent factor (standardized factor loadings in freely estimated model .56–.95). All loadings except for the item “How rewarding is your relationship with your partner?” among the Dutch participants could be set equal between the countries based on the Satorra-Bentler significance test (constrained model: $\chi^2$ (11) = 27.49, $p = .004$, TLI = 0.99, RMSEA = .07, SRMR = .04). Consequently, the requirement of metric invariance between the countries was fulfilled.

3.2 Associations of participants’ work schedules and other work time-related factors with spousal satisfaction in the three countries

In step 1, age, marital status, number of children and financial situation were associated ($p < .10$) with the latent variable of spousal satisfaction in at least one of the countries. Other background variables showed no statistically significant paths with the latent variable in any of the countries and were thus removed from the model. In step 2, self-identified work schedule was not associated with the latent variable. In step 3, the only work schedule variable connected with the latent variable was the dichotomous variable for occasional (1–2 times/month) night work, and hence both dichotomous variables for night work were retained in the model. In step 4, changes in and influence over work schedules were connected with the latent variable, and hence these variables were retained in the model.
The Satorra-Bentler test showed that all path coefficients could be set equal between the countries. After so doing, number of children, influence over work schedules and changes in work schedules were no longer associated ($p > .10$) with the latent variable and were thus removed from the model (constrained model: $\chi^2 (66) = 99.14, p = .005$, TLI = 0.99, RMSEA = .04, SRMR = .04; see Figure 1). High spousal satisfaction was associated with being younger, being married and a better self-reported financial situation. In addition, occasional night work (1–2 times/month) showed a negative association with the latent variable. The difference between occasional and more frequent night work was not statistically significant as the 95% confidence intervals of the path coefficients of occasional, 95% CI [-.46, -.07], and more frequent night work, 95% CI [-.24, .08], were overlapping.

The analyses on spouse’s work schedule were performed for only the subsample of the participants who had an employed spouse. When the variable of spouse’s schedule was added to the unconstrained model described above in step 5, this variable was associated with the CSI in the Dutch sample (spouse’s nonstandard schedule was associated with lower satisfaction), and thus the variable was retained in the model. After constraining all the path coefficients to be equal between the countries, as indicated by the Satorra-Bentler test, spouse’s work schedule was not associated ($p > .05$) with the latent variable and was thus removed from the model.

Figure 1: Multigroup SEM model explaining spousal satisfaction, unstandardized coefficients (standardized coefficients for Finland/the Netherlands/and the United Kingdom in parentheses)
3.3 Parents’ descriptions of the meaning of working time in spousal relationship

Content. Table 2 presents the five content themes identified in the data. Many descriptions contained several themes, and these were often presented as a chain of events (e.g., “Tiredness from work sometimes causes tension”; id 1116, a Dutch mother). The theme most often mentioned in the parents’ descriptions, absence/presence, focused on the amount of time and/or (lack of) possibilities for being present. The theme organization of daily life included descriptions of how working times affected the activities of daily family life, such as the division of labor, housework, parenting and hobbies. Working times were also seen to affect the spousal relationship through different kind of psychological reactions, such as irritability, promoting an understanding attitude, habituation and appreciation. Parents reported that their working times also caused physical reactions; that is, they mentioned the physical consequences of their working times, most commonly tiredness. Effects related to spousal interaction and the intimate spousal relationship, such as disputes, discussions and closeness were classified as spousal communication and intimacy. The category Other included descriptions in which the content was either not mentioned or not included in any of the other themes.

When families with diverse working schedules and parents from different countries were compared, cross-tabulations showed some differences in the prevalence of content themes (see Table 2). Absence/presence was more often mentioned by parents in families where one or both parents worked nonstandard schedules whereas physical reactions and the organization of daily life were more often described in families where both parents worked a regular day schedule. Physical and psychological reactions were more often described by the British than Finnish and, in case of physical reactions, Dutch parents. The Finnish parents more often described absence/presence than the British parents, and the Dutch parents more often referred to the organization of daily family life than the Finnish parents.

Appraisal. The vast majority of the parents’ descriptions (n = 497, 80.3%) portrayed working times as a problem for their spousal relationship (e.g., “I work Monday-Friday days, and he works shifts of 6 days on and 4 days off of various patterns. We can sometimes be passing ships in the night! This means we have few evenings to do social activities and sometimes feel like single parents.”; id 841, a British mother). Nevertheless, a notable proportion of parents (n = 108, 17.4%) also described their working times as benefiting their spousal relationship (e.g., “Positively. The father can also have a moment alone with the children without the mother being present”; id 57, a Finnish mother). In addition, rather than just focusing on either positive or negative effects, many parents mentioned solutions and coping strategies used to tackle the negative effects of parental working times (n = 52, 8.4%; e.g., “We don’t get much family time and even less time for just being together as a couple. When sensibly organized, everyday life, however, runs smoothly enough and it doesn’t seem to have a specially adverse effect on our relationship as a couple.”; id 474, a Finnish mother). Appraisals were unclear in 4.0 per cent (n = 25) of cases.
<table>
<thead>
<tr>
<th>Content theme</th>
<th>Example</th>
<th>Prevalence</th>
<th>Differences between family work schedule situations</th>
<th>Differences between countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absence/presence</td>
<td>“Allows us to spend more day time together as a couple. Sometimes it means we can’t attend evening functions as a couple”; id 1417, a British mother</td>
<td>367 59.3</td>
<td>$\chi^2 (1) = 15.534, p &lt; .001; adj.res: NS 3.9, DW -3.9$</td>
<td>$\chi^2 (2) = 12.32, p = .002; adj.res: FIN 3.3, UK -2.9$</td>
</tr>
<tr>
<td>Organization of daily life</td>
<td>“When a busy wife has to take care of driving children to their hobbies, preparing food, cleaning...”; id 597, a Finnish father</td>
<td>199 32.1</td>
<td>$\chi^2 (1) = 6.583, p = .010; adj.res: NS -2.6, DW 2.6$</td>
<td>$\chi^2 (2) = 23.33, p &lt; .001; adj.res: FIN -4.6, NL 3.2$</td>
</tr>
<tr>
<td>Psychological reactions</td>
<td>“Sometimes a lot of alternating shifts mean we appreciate it all the more when we are together.”; id 1584, a British mother</td>
<td>133 21.5</td>
<td>ns</td>
<td>$\chi^2 (2) = 19.49, p &lt; .001; adj.res: FIN -1.7, UK 4.2$</td>
</tr>
<tr>
<td>Physical reactions</td>
<td>“If my partner regularly has work via the temping agency, he is often tired in the evening, and the weekends I have to work are quite a challenge for him.; id 285, a Dutch mother</td>
<td>94 15.2</td>
<td>$\chi^2 (1) = 3.971, p = .046; adj.res: NS -2.0, DW 2.0$</td>
<td>$\chi^2 (2) = 34.76, p &lt; .001; adj.res: FIN -3.1, NL -3.2, UK 5.9$</td>
</tr>
<tr>
<td>Spousal communication and intimacy</td>
<td>“Often a source of conflict due to competing demands”; id 260, a British father</td>
<td>81 13.1</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>Other</td>
<td>“Badly”; id 1984, a British father</td>
<td>52 8.4</td>
<td>ns</td>
<td>ns</td>
</tr>
</tbody>
</table>

*Note: NS = parents in families where either or both parents work nonstandard schedules; DW = parents in families where both parents work in regular daywork*
The results of the cross-tabulations showed no difference in how families with diverse working time arrangements evaluated the effects of working time. However, Dutch parents (adjusted residual = 8.6) described their working times as a benefit more often than their Finnish (-2.9) and British counterparts (-4.7), \( \chi^2 (2) = 75.22, p < .001 \). They also reported working time-related problems less often (adjusted residual = -7.2) than the British parents (4.8), \( \chi^2 (2) = 54.69, p < .001 \).

4. Discussion

This study examined whether and, if so, how parents’ working schedules are associated with their satisfaction with their spousal relationship. Utilizing quantitative and qualitative data from three European countries - Finland, the Netherlands and the United Kingdom - various aspects of work schedules were analyzed with the aim of broadening understanding of the associations of work schedules and spousal relationship quality. Based on earlier research, it was hypothesized that working nonstandard schedules, working more hours and having less influence on and experiencing more changes in one’s work schedules would be negatively associated with spousal satisfaction. We also expected that parents would not only describe the experienced effects of work schedules on their spousal relationship in line with Grzywacz’s (2016) framework but they would also describe effects not observed by earlier studies. No specific hypotheses on cross-country differences were set.

With respect to hypotheses 1 and 2, the results showed weak support for the quantitative connections between different aspects of work schedules and spousal satisfaction among parents in three European countries. When parents in regular day work were compared with those working nonstandard times, no associations were found between work times and spousal satisfaction, except for night work. Specifically, working nights occasionally was associated with diminished spousal satisfaction.

Night work has also earlier been shown to pose unique challenges for the social life and well-being of parents (Su & Dunifon 2017) by, for example, causing physiological stress and disturbance of the sleep-wake rhythm (Totterdell 2005; Vogel et al. 2012; see also Grzywacz 2016). The present study extends the research literature by taking into account the amount of work done outside office hours. When night work is done only occasionally, families may not have established well-functioning practices for ensuring that a parent has sufficient sleep after a night at work. Another explanation relates to the nature of the jobs that involve occasional night work. It is possible that these jobs have important features which our control variables did not reflect but which – rather than occasional night work per se – relate to low spousal satisfaction.

In this study, in comparison to the findings of earlier research, which has mainly been conducted in the US, relatively few quantitative associations were observed between work schedules and spousal satisfaction. Together with Täht’s (2011) findings, this study suggests that in the three European countries studied, nonstandard work schedules may not be as strongly associated with spousal satisfaction as appears to be the case in the US. To our knowledge, the only study comparing European and US employees on the associa-
tions between nonstandard schedules and family life Täht (2011) showed that nonstandard work schedules were less strongly associated with relationship dissolution among the Dutch than US participants. For example, in the areas of employment protection and maternal and paternal leaves, the parents in the three European countries represented in this study are in a stronger position than their US counterparts (OECD 2014; Täht 2011), a factor which may ease the spousal life of parents working nonstandard schedules.

Our qualitative findings showed a clear overlap with Grzywacz’s (2016) frameworks as proposed by our hypothesis 3. According to the parents, working times affected their spousal relationship via their physical and psychological well-being, organization of daily life and possibilities to be present in daily family life. Broadening Grzywacz’s frameworks, we also found that the effects of working times, as reported by parents, were on spousal communication and intimacy. Working times were described as a source of conflict, but also of agreement and discussion.

Most parents appraised the impact their working times on their spousal relationship as detrimental. A notable proportion, however, mentioned that their working times also had benefits for their spousal relationship, thereby illustrating the diversity in parents’ experiences. Also in line with our quantitative results was the finding that whether parents described their working times as problematic or beneficial or as something they were able to accommodate to was not found to be conditional on their work schedules.

The results of our content analysis may reveal a further possible explanation for the scarcity of quantitative associations found between work schedules and spousal relationship quality. Many parents, rather than just listing the pros or cons of their working times, reported having found effective solutions and coping strategies to counter the negative effects. For example, adopting an accepting attitude towards one’s own life situation or utilizing flexible childcare may act as a protective factor against the risk presented by non-standard working times. It is important to note that the parents in the study had relatively long relationship histories and thus it is possible that during their relationship they had learned to cope with the possible challenges caused by their working times. Those suffering most from the negative effects of their working times may have separated earlier in their relationship history and thus are not represented in this study.

Interestingly, with respect to research question 4, although the structural equation modelling revealed no quantitative differences between the three countries, the content analysis showed some differences between the countries in how parents evaluated the effects of working time on their spousal relationship. Namely, the Dutch parents described these effects as beneficial more often than either the Finnish or British parents. Previous studies utilizing the present data set also suggest that nonstandard working times are more positively experienced by Dutch parents than their British and Finnish counterparts (Rönkä, Malinen, Sevón, Metsäpelto & May 2017; Tammelin, Malinen, Verhoef, & Rönkä 2017).

In reviewing the results of this study, it should be remembered that the study utilized cross-sectional data and thus research using a longitudinal design would be needed to complement the present findings. Another limitation of this study is the relatively limited sample size. To verify that the lack of significant findings in the SEM analyses was not explained by the relatively limited sample size, simpler analyses were also run. For each type of nonstandard work time (i.e., morning, evening, night and weekend work) a separate
analysis in which only the nonstandard work variables in question were used as exogenous variables (i.e., omitting background or other work-related variables) was run. These analyses showed no significant findings in addition to that related to occasional night work, a result that strengthens the reliability of the present findings.

It should also be noted that the samples of Finnish, Dutch and British parents were not randomly selected and therefore not representative, which makes cross-national comparisons and generalization of the results difficult. Due to these data-related constraints, it is not possible to reliably evaluate whether the results of the study relate to the characteristics of our data set or reflect the more general situation in these countries, a problem commonly encountered in cross-national studies (see Yu, 2015). The country samples differed from each other in some background factors such as financial and work situation. Although all the differences detected were controlled for in the analyses, it is nevertheless possible that all meaningful differences between the samples were not captured.

Rather than indicating that the timing of partners’ work only plays a small role in spousal well-being, the results of this study suggest that working early mornings, evenings, nights and weekends have both advantages and disadvantages for the spousal relationship. Families also appear to be active in finding solutions to their problems of work-family reconciliation. Thus, research in this field could benefit from focusing more on the possible moderating and mediating factors as well as examining whether and how the timing of spouses’ work affects the organization of family life. For example, although it is often assumed that working nonstandard times reduces spousal time, in a situation where both parents of school-aged children work evenings and have free time during school-hours, extensive possibilities exist for one-on-one spousal time. Since nonstandard work schedules take several different forms, a simple categorization of individuals’ work times is not adequate for addressing questions of this kind. In future studies, more emphasis, both quantitative and qualitative, should be put on understanding the complex nature of work schedules. Further research is also needed on the solutions and good practices families have come up with in response to problems caused by their work schedules.

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Deutscher Titel

Eine Nacht – zwei Schiffe? Unregelmäßige Arbeitszeiten und Zufriedenheit in der Ehe in Finnland, den Niederlanden und dem Vereinigten Königreich

Zusammenfassung


Schlagwörter: Inhaltsanalyse, interkulturell, unregelmäßige Arbeitszeiten, eheliche Zufriedenheit, Strukturgleichungsmodell, Arbeitspläne