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## Original article

## Attitudes toward working conditions: are European Union workers satisfied with their working hours and work-life balance?

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## ABSTRACT

**Objective:** To describe the satisfaction with working hours and satisfaction with work-life balance and their association in the European Union (EU-28).**Method:** This is a cross-sectional study based on data from the Flash Eurobarometer 398 among workers of the EU-28 from 2014 (n = 13,683). We calculated percentages and their 95% confidence intervals (95%CI). We also applied a multi-level generalised linear model using the Poisson family, to calculate the adjusted prevalence ratios (aPR) of satisfaction with work-life balance based on working hours. All analyses were stratified by individual, employment and welfare regime country classification.**Results:** The satisfaction with working hours and work-life balance was 80.62% and 74.48%, respectively, and was significantly higher among women. The highest percentages of satisfaction were found in the Nordic welfare regime countries (90.2% and 85.3%, respectively). There was a statistically significant association between satisfaction with working hours and work-life balance (aPR: 2.63; 95%CI: 2.28–3.04), and the magnitude of the association differed in individual, employment and welfare regime country classifications. The main reasons declared for dissatisfaction were “excessive working hours” (48.7%), “shift work” (27.9%), and “inability to influence the work schedule” (28.3%). Differences were observed according to sex and type of welfare regime.**Conclusion:** The differences found in the association between satisfaction with work-life balance and working hours according to sociodemographic characteristics and welfare regime show that there are inequalities in the working conditions in the EU countries.© 2017 SESPAS. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).**Actitudes frente a las condiciones laborales: ¿está la población trabajadora de la Unión Europea satisfecha con sus horas de trabajo y su balance trabajo-vida?**

## RESUMEN

## Palabras clave:

Condiciones laborales

Satisfacción con el trabajo

Balance trabajo-vida

Horas de trabajo

**Objetivo:** Describir la satisfacción con las horas de trabajo y la satisfacción con el balance trabajo-vida y su respectiva asociación en la Unión Europea (UE-28).**Método:** Se trata de un estudio transversal basado en los datos del *Flash Eurobarometer 398* en población trabajadora de la UE-28 en 2014 (n = 13.683). Calculamos porcentajes e intervalos de confianza del 95% (IC95%). Se calcularon las razones de prevalencia ajustadas (RPa) de satisfacción con las horas de trabajo y el balance trabajo-vida mediante un modelo multinivel lineal generalizado con la familia Poisson. Los análisis se estratificaron por características individuales, del empleo y del estado de bienestar.**Resultados:** La satisfacción con las horas de trabajo (80,62%) y el balance trabajo-vida (74,48%) fue significativamente mayor en las mujeres. Los porcentajes más altos de satisfacción se encontraron en los países nórdicos (clasificación de estado de bienestar), siendo del 90,2% y el 85,3%, respectivamente. La asociación entre satisfacción con las horas de trabajo y balance trabajo-vida (RPa: 2,63; intervalo de confianza del 95%: 2,28–3,04) difirió por características individuales, del empleo y de estado de bienestar. Excesivas horas de trabajo (48,7%), turnicidad (27,9%) e imposibilidad de influir en el horario laboral (28,3%) fueron las principales razones de insatisfacción.**Conclusiones:** Las diferencias encontradas en la asociación entre la satisfacción con el balance trabajo-vida y las horas de trabajo según las características sociodemográficas y el estado de bienestar demuestran la existencia de inequidades en las condiciones laborales en los países de la UE.© 2017 SESPAS. Publicado por Elsevier España, S.L.U. Este es un artículo Open Access bajo la licencia CC BY-NC-ND (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

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## Introduction

Neoliberal economic globalization has changed working conditions and the definition of standard employment.<sup>1</sup> The traditional standard employment characteristics (regular working hours, stability, and social standards linked with permanent full-time work) has lost importance and the increasing trend is characterized by a flexible labor market. The flexible labor market has created, on one hand, boundaryless jobs, which means that there are no limits on how long, when and how fast people work.<sup>2,3</sup> On the other hand, non-standard work arrangements have increased, usually associated with low wages and temporary conditions.<sup>1</sup> Although working at unconventional times is becoming popular, the social rhythm of the western societies remains largely unchanged. Therefore, the balance between work and personal life, or work-life balance, has been largely discussed and is considered a policy priority in the European Union.<sup>4,5</sup>

Time has been proposed as a social determinant of health, as it is a resource that people need for good health; accessing health services, partaking in healthy behaviors, resting, working and caring for dependents.<sup>2</sup> Working hours (long working hours, irregular or shift work, night work, etc.) may create a work-life imbalance due to lack of time to sustain a personal life. Poor work-life balance has been suggested to be an intermediate factor of the associations between working hours and health-related outcomes.<sup>6</sup> Lack of time is associated with unhealthy behaviors; unhealthy diets, alcohol consumption, smoking and/or not exercising.<sup>7</sup> Moreover, not having time to recover from work exhaustion may result in a poor mental health status and sleeping problems.<sup>6</sup> Also, rushing to trying to catch up with the out-of-work activities may create stress responses, such as elevated blood pressure, heart rate and cortisol levels.<sup>8</sup> Further, low wages due to few working hours and temporary jobs may create financial insecurities that also have an impact on health status.<sup>9</sup> Therefore, satisfaction with work-life balance is an indicator of well-being that is of public health interest.<sup>8</sup>

Current evidence on satisfaction with work-life balance is mostly based on studies of health and academic professionals,<sup>10–14</sup> with a focus on balance with family time rather than personal time in general, and therefore with little external validity for the general population. Furthermore, almost all the studies done on working hours and work-life balance are based on “long working hours”, whereas, too few hours would also be a predictor of poor work-life balance due to the lower wages earned.<sup>15</sup> Next, there are just two studies describing satisfaction with work-life balance in European population and they date from 2010. Thus, as work-life balance is one of the European Union priorities, an update on satisfaction with work-life balance in European workers is necessary.

Therefore, the objective of this study is to examine the associations between satisfaction with working hours and work-life balance and to describe the main reasons for dissatisfaction with working hours.

## Methods

### *Study population and data collection*

This is a cross-sectional study. We used the data obtained from the flash Eurobarometer 398 survey about “Working Conditions” carried out by TNS Political & Social network between April 3<sup>rd</sup> and 5<sup>th</sup>, 2014, on behalf of the European Commission, DG Employment, Social Affairs and Inclusion.<sup>16</sup> The survey covers the resident population in each of the 28 Member States aged 15 years and over. To complete the questionnaire, the respondents were interviewed via telephone (landline and mobile phone) in their mother tongue. In each country, a multi-stage random sampling design was used. The

survey includes information from 26,571 European citizens. For the present study, we excluded people who declared not to be working and participants < 16 years old and > 70 years old (not at working age). The final sample for this study was 13,683 current European workers. From those included, 54% were men, 69% were employees, 78% worked full-time, 83% had a permanent work contract and the mean age was 42 years.

### *Study variables*

*Satisfaction with working hours* was obtained from the question: “More precisely, how satisfied are you with your “working hours” in your current job?”, with the possible answers “very satisfied”, “satisfied”, “not very satisfied”, “not at all satisfied”. These were dichotomized as “satisfied” (very satisfied and satisfied) and “not satisfied” (not very satisfied, not at all satisfied).

Main reasons for *dissatisfaction with working hours* were obtained from the question: “Which of the following are the main reasons for your dissatisfaction with working hours?”, with the possible answers; excessive working hours, not enough working hours, constrained by shift work or other forms of irregular working time, working exclusively or mainly at night, constrained by on-call periods at home, constrained by on-call periods at the workplace, unable to influence your work schedule, lack of opportunities for flexible working, and other reasons. For each of these, three maximum answers could be given. All the workers were asked about main reasons of dissatisfaction with working hours; even if they answered that they were very satisfied with their working hours in the previous question.

*Satisfaction with work-life balance* was obtained from the question: “More precisely, how satisfied are you with your work-life balance in your current job?” with the possible answers “very satisfied”, “satisfied”, “not very satisfied”, “not at all satisfied”. These were dichotomized as “satisfied” (very satisfied and satisfied) and “not satisfied” (not very satisfied, not at all satisfied).

The questionnaire also included information about sex (men, women), age (16–24 years, 25–39 years, 40–54 years, ≥55 years old), age at the end of schooling (<15 years, 16–19 years, > 20 years, still studying), occupation (self-employed, employee, manual workers), working day (part-time, full-time), work contract (permanent contract, fixed term contract, temporary employment, apprenticeship), country typologies classification based on the welfare regime type<sup>17</sup> as follows: Continental welfare regime countries (Austria, Belgium, Germany, France, the Netherlands and Luxembourg), Anglo-Saxon welfare regime countries (Ireland and the United Kingdom), Eastern European welfare regime countries (Croatia, Czech Republic, Estonia, Hungary, Lithuania, Latvia, Poland, Rumania, Bulgaria, Slovenia and Slovakia), Southern European welfare regime countries (Cyprus, Greece, Spain, Italy, Malta and Portugal) and Nordic welfare regime countries (Denmark, Finland and Sweden).

### *Statistical analysis*

We calculated the percentages and the 95% confidence intervals (95%CI) of satisfaction with the working hours and work-life balance. We draw a bar graphic with the main reasons of dissatisfaction with work hours by welfare regime countries classification and sex. We fit a multi-level generalized linear model using the Poisson family and country as the aleatory factor, to calculate the crude (cPR) and adjusted (aPR) prevalence ratios with their 95%CI of satisfaction with work-life balance according to satisfaction with working hours. All analyses included sampling weights for each country. The associations between work-life balance and working hours were stratified by individual (sex, age, age at the end of

**Table 1**  
Satisfaction (%) with the work-life balance and working hours among European current workers (EU-28) stratified according to individual, employment, and welfare characteristics in 2014.

	n	Satisfaction with working hours		Satisfaction with work-life balance	
		% (CI95%)	p-value <sup>a</sup>	% (CI95%)	p-value <sup>a</sup>
<i>Overall</i>	13683	80.62 (79.32-81.85)	...	74.48 (73.05-75.85)	...
<i>Sex</i>			0.001		0.001
Men	7364	78.44 (73.80-82.46)		72.65 (68.81-76.18)	
Women	6319	83.15 (81.53-84.65)		76.61 (74.19-78.86)	
<i>Age</i>			0.317		0.113
16-24 years	1097	82.69 (72.59-89.60)		75.13 (69.44-80.06)	
25-39 years	5056	78.99 (75.21-82.32)		72.59 (69.17-75.77)	
40-54 years	5458	80.89 (77.50-83.88)		74.76 (71.25-77.97)	
≥55 years	2071	82.79 (79.34-85.77)		78.04 (72.91-82.43)	
<i>Age at the end of the studies</i>			0.153		0.491
< 15 years	799	75.10 (69.05-80.31)		73.16 (66.49-78.92)	
16-19 years	5418	82.13 (77.28-86.13)		75.68 (72.13-78.92)	
> 20 years	7093	79.99 (76.76-82.87)		73.71 (70.66-76.55)	
Still studying	263	87.45 (79.96-92.40)		78.22 (62.19-88.69)	
<i>Occupation</i>			<0.001		0.025
Self-employed	2157	72.42 (67.34-76.98)		69.55 (64.09-74.5)	
Employee	9439	82.55 (79.06-85.57)		75.34 (72.09-78.33)	
Manual workers	2073	80.26 (76.46-83.58)		75.67 (71.97-79.02)	
<i>Work time</i>			0.026		<0.001
Part time	3015	83.07 (79.62-86.04)		82.93 (77.48-87.28)	
Full time	10576	79.92 (76.58-82.89)		72.08 (69.34-74.66)	
<i>Work contract</i>			0.660		0.109
Permanent contract	9225	82.41 (79.67-84.85)		75.83 (73.05-78.42)	
Fixed term contract	1438	81.67 (74.28-87.3)		73.75 (65.23-80.80)	
Temporary employment	183	78.76 (64.86-88.16)		88.38 (81.47-92.94)	
Apprenticeship	197	87.37 (71.52-95.01)		64.62 (55.07-73.12)	
<i>Country typologies<sup>b</sup></i>			<0.001		<0.001
Continental	5082	83.05 (79.41-86.16)		77.92 (74.37-81.1)	
Anglo-Saxon	2208	84.46 (83.48-85.4)		77.83 (77.61-78.06)	
Eastern European	3033	79.60 (77.57-81.50)		72.14 (71.06-73.20)	
Southern European	2738	71.95 (66.37-76.93)		65.51 (60.07-70.58)	
Nordic	622	90.17 (87.63-92.24)		85.27 (82.43-87.72)	

CI95%: confidence interval of 95%.

<sup>a</sup> Chi-square test.

<sup>b</sup> Country typologies: Continental area (Austria, Belgium, Germany, France, the Netherlands and Luxembourg), Anglo-Saxon area (Ireland and the United Kingdom), Eastern European area (Croatia, Czech Republic, Estonia, Hungary, Lithuania, Latvia, Poland, Rumania, Bulgaria, Slovenia and Slovakia), Southern European area (Cyprus, Greece, Spain, Italy, Malta and Portugal) and Nordic countries (Denmark, Finland and Sweden).

schooling), employment (occupation, working day, work contract) and welfare regime country classification (country typologies).

We construct a DAG for the associations between work-life balance and satisfaction with working hours and the relations with the covariates (see [Figure s1. Supplemental Material](#)) using DAGitty.<sup>18</sup> The possible confounding variables (work contract, working day, occupation, age, age at the end of schooling and sex) from the DAG were tested in a crude model and those that changed the cPR by 5% were considered confounders (work time & work contract), and also by sex and age.

Furthermore, as having children (<3 years old) could be a possible confounding variable<sup>19</sup> of which we did not have information, we calculated the aPR for men and women at 20-35 years old, since the average age of having the first child in European Union countries ranges between the 20s and 30s.<sup>20</sup> Further, being in charge of the elderly may be another possible confounding variable, and so we calculated the aPR for men and women older than 50 years old, since at these ages is more probably to be in charge of an older person.

The level of statistical significance was set to a two-sided p-value < 0.05. All analyses were conducted using Stata 14.0 statistical software.

## Results

**Table 1** shows satisfaction with work-life balance and working hours, which were 74.5% and 80.6%, respectively. There were statistically significant differences in the satisfaction with work-life balance and working hours according to sex, occupation, work time and welfare regime country classification (**Table 1**). The main reasons declared for dissatisfaction were excessive working hours (48.7%), shift work (27.9%), and inability to influence the work schedule (28.3%) (**Fig. 1**). The percentage of women who declared being dissatisfied with excessive working hours was higher than in men in Continental (54.69%), Southern European (51.01%), and Nordic (45.75%) countries. Otherwise, dissatisfaction for being unable to influence the work schedule was higher among men, except in Southern European countries, as dissatisfaction due to shift work, except for Anglo-Saxon Countries (**Fig. 1**).

There was a positive association between working hours and work-life balance (cPR: 2.56; 95%CI: 2.29-2.85; and aPR: 2.63; 95%CI: 2.28-3.04) (**Table 2**). Workers who were satisfied with their working hours had higher probabilities of being satisfied with their work-life balance (**Table 2**). After adjustment for potential confounders, higher associations of satisfaction with working hours

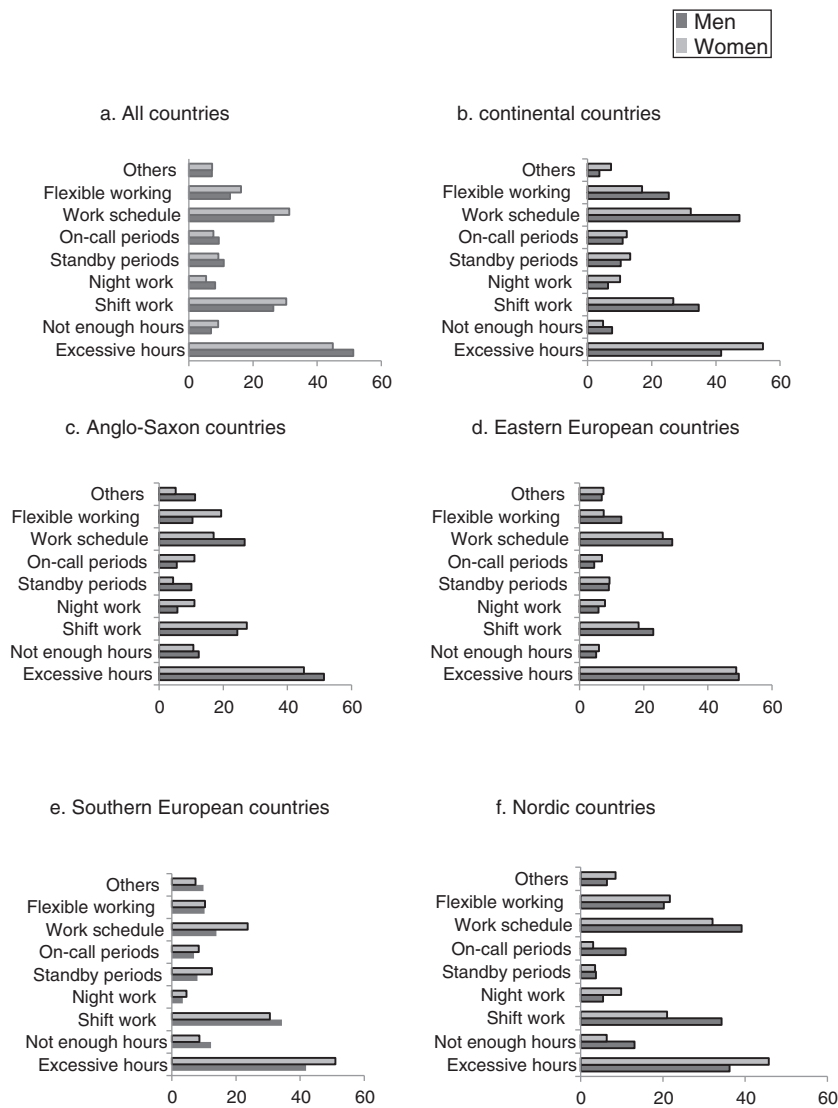


Figure 1. Main reasons of dissatisfaction with working hours by sex and country typology in the EU-28 at 2014.

and work-life balance were found among men, younger workers, in those that the age at the end of schooling was <15 years, employees, full-time workers, apprenticeship contract workers and workers from Anglo-Saxon countries (Table 2). A similar pattern was observed among men and women at the age of having their first child (20-35 years old) and at the age of being in charge of the elderly (>50 years old) (Tables 3 and 4).

### Discussion

We found high satisfaction with working hours and work-life balance within European Union workers and a strong association between the two. Furthermore, the most prevalent reasons for dissatisfaction with working hours were excessive working hours, shift work, and inability to influence the work schedule.

Two previous studies have described work-life balance in the European Union. These studies found higher percentages of satisfaction with work-life balance (around 80%) than our figures (74.5%).<sup>8,21</sup> Moreover, Lunau et al.<sup>8</sup> found higher satisfaction with work-life balance among women and Scandinavian countries (10.8%) and lower satisfaction in Southern European countries (23.5%) of the EU-27 countries with a similar classification of welfare characteristics. Even though the patterns of the frequencies are

the same, we show higher percentages of dissatisfaction with work-life balance. Those differences could be explained by the year the surveys were done (2005 and 2010 vs. 2014) and the potential effect of the economic crisis on satisfaction with working conditions (better to have a job than not). Greubel et al.<sup>21</sup> reported an association between working at unusual times (evenings, Saturdays and Sundays) and poor work-life balance. We find a similar association, but our main variable “satisfaction with working hours” can be understood from several perspectives; amount of time (i.e. long or few hours), work schedule (i.e. shift work or working at unusual times) and being able to influence the work schedule (i.e. flexible hours, on-call periods at home or standby periods at work).

A higher proportion of women were satisfied with their work-life balance. This could be explained by the fact that women more frequently work part-time to be able to take care of children and the household.<sup>19</sup> In our study, 15.96% of women and 6.23% of men had part-time work. Otherwise, the adjusted association between satisfaction with working hours and work-life balance was slightly higher among men. Our results, then, would support the idea that women take primary responsibility for managing the household while working part- or full-time.<sup>22,23</sup>

Associations between satisfaction with working hours and work-life balance were lower in the self-employed, in those with



**Table 2**

Prevalence ratio of satisfaction in work-life balance from satisfaction in working hours among European current workers (EU-28) stratified according to individual, employment, and welfare characteristics in 2014.

	cPR	CI95%	aPR <sup>a</sup>	CI95%
Overall	2.56	(2.29-2.85)	2.63	(2.28-3.04)
<b>Sex</b>				
Men	2.31	(2.01-2.66)	2.81	(2.34-3.38)
Women	2.76	(2.41-3.15)	2.41	(2.02-2.89)
<b>Age</b>				
15-24 years	2.49	(1.76-3.53)	2.99	(2.09-4.29)
25-39 years	2.49	(2.01-3.08)	2.58	(2.06-3.22)
40-54 years	2.59	(2.23-3.01)	2.53	(2.28-2.80)
≥ 55 years	2.72	(2.27-3.27)	2.87	(2.15-3.82)
<b>Age at the end of the studies</b>				
< 15 years	2.96	(2.05-4.27)	3.71	(2.59-5.29)
16-19 years	2.44	(2.08-2.86)	2.48	(1.99-3.09)
> 20 years	2.67	(2.31-3.08)	2.76	(2.36-3.23)
Still studying	1.28	(0.60-2.71)	1.19	(0.83-1.70)
<b>Occupation</b>				
Self-employed	2.30	(1.93-2.74)	2.24	(1.87-2.70)
Employee	2.72	(2.39-3.09)	2.69	(2.34-3.08)
Manual workers	2.35	(1.98-2.79)	2.39	(1.99-2.89)
<b>Work time</b>				
Part time	1.73	(1.45-2.07)	1.71	(1.45-2.01)
Full time	2.91	(2.51-3.36)	3.05	(2.49-3.75)
<b>Work contract</b>				
Permanent contract	2.72	(2.32-3.20)	2.70	(2.31-3.15)
Fixed term contract	2.48	(2.05-2.99)	2.42	(2.02-2.91)
Temporary employment	1.65	(1.23-2.22)	1.63	(1.27-2.08)
Apprenticeship	2.69	(1.68-4.30)	3.24	(1.77-5.93)
<b>Country typologies<sup>b</sup></b>				
Continental	2.53	(2.29-2.80)	2.56	(2.33-2.80)
Anglo-Saxon	2.97	(0.59-14.99)	3.63	(0.59-22.37)
Eastern European	2.19	(1.65-2.91)	2.24	(1.54-3.27)
Southern European	2.75	(2.13-3.54)	2.68	(2.03-3.54)
Nordic	1.97	(1.26-3.09)	2.03	(0.91-4.52)

CI95%: confidence interval of 95%; PR: prevalence ratio.

<sup>a</sup> PR: adjusted prevalence ratios for sex, age, work time and work contract.

<sup>b</sup> Country typologies: Continental area (Austria, Belgium, Germany, France, the Netherlands and Luxembourg), Anglo-Saxon area (Ireland and the United Kingdom), Eastern European area (Croatia, Czech Republic, Estonia, Hungary, Lithuania, Latvia, Poland, Rumania, Bulgaria, Slovenia and Slovakia), Southern European area (Cyprus, Greece, Spain, Italy, Malta and Portugal) and Nordic countries (Denmark, Finland and Sweden).

a temporary contract and also with part-time work. The same pattern was observed in workers at the age of having the first child and at ages of being in charge of the elderly. Previous studies have described a worse health status among the self-employed and higher risks for work-family conflict due to job demands.<sup>24,25</sup> Temporary employment has been associated with psychological morbidity mediated by job insecurity or erosion of income, among other factors.<sup>26</sup> Therefore, workers with temporary employment contracts, part-time or self-employed would experience economic-based work-life imbalance.

Workers from Nordic countries declare the highest satisfaction with working hours and work-life balance. This is coherent with the welfare regime of these countries; in Nordic countries, policies for compatibility of employment and private life are common, as is the promotion of employment for women.<sup>17</sup> For example, Nordic welfare states have large investments in publicly provided child care for preschool children,<sup>27</sup> also extensive services related to care for the elderly and the disabled, generous parental leaves (high compensation rates and long leave periods).<sup>27</sup> In the contrary, Anglo-Saxon countries are characterized by deregulated labor markets and men are still the main breadwinners, with low support for female participation in the labor force.<sup>17</sup> Despite Continental and

**Table 3**

Prevalence ratio of satisfaction in work-life balance from satisfaction in working hours among European current workers (EU-28) between 20 and 35 years old (ages of family beginning) stratified according to individual, employment, and welfare regime country classification in 2014.

	Men 20-35 years old (n = 1803)		Women 20-35 years old (n = 1900)	
	aPR <sup>a</sup>	CI95%	aPR <sup>a</sup>	CI95%
Overall	2.65	(2.14-3.27)	2.79	(1.90-4.10)
<b>Age at the end of the studies</b>				
< 15 years	3.62	(1.60-8.18)	1.40	(1.03-1.91)
16-19 years	2.82	(1.34-5.93)	2.93	(1.89-4.54)
> 20 years	2.56	(2.04-3.20)	2.92	(1.84-4.64)
Still studying	2.74	(0.40-18.71)	2.12	(0.52-8.72)
<b>Occupation</b>				
Self-employed	1.92	(1.16-3.19)	1.18	(0.79-1.78)
Employee	2.63	(2.14-3.24)	2.84	(1.77-4.56)
Manual workers	2.56	(1.74-3.77)	2.52	(1.49-4.24)
<b>Work time</b>				
Part time	1.77	(1.19-2.66)	2.41	(2.01-2.89)
Full time	2.86	(2.24-3.65)	3.07	(1.68-5.61)
<b>Work contract</b>				
Permanent contract	2.77	(2.16-3.56)	2.81	(1.67-4.72)
Fixed term contract	1.92	(1.12-3.31)	2.98	(1.97-4.51)
Temporary employment	NC	NC	NC	NC
Apprenticeship	NC	NC	NC	NC
<b>Country typologies<sup>b</sup></b>				
Continental	2.69	(2.38-3.05)	2.86	(1.69-4.84)
Anglo-Saxon	3.44	(2.02-5.86)	8.83	(7.83-9.96)
Eastern European	2.31	(1.45-3.66)	1.99	(1.43-2.78)
Southern European	2.17	(1.62-2.90)	2.16	(0.89-5.23)
Nordic	2.61	(0.35-19.12)	2.14	(1.49-3.09)

CI95%: confidence interval of 95%; NC: not converge; PR: prevalence ratio.

<sup>a</sup> PR: adjusted prevalence ratios for sex, age, work time and work contract.

<sup>b</sup> Country typologies: Continental area (Austria, Belgium, Germany, France, the Netherlands and Luxembourg), Anglo-Saxon area (Ireland and the United Kingdom), Eastern European area (Croatia, Czech Republic, Estonia, Hungary, Lithuania, Latvia, Poland, Rumania, Bulgaria, Slovenia and Slovakia), Southern European area (Cyprus, Greece, Spain, Italy, Malta and Portugal) and Nordic countries (Denmark, Finland and Sweden).

Southern European countries having strong labor market regulations, few efforts are made to facilitate the work-life balance and there is little support to promote female employment.<sup>17</sup> Finally, Eastern countries are similar to Anglo-Saxon countries in terms of labor market; there is a traditional model of household labor division and dual-earner families are common.<sup>17</sup> We also observed lower disparities in the satisfaction with working hours and work-life balance in Nordic countries. Macrosocial policies may explain why satisfaction with working hours and work-life balance may not be as strongly associated as in other countries.<sup>27</sup> Similarly, we observed that the associations of satisfaction with work-life balance from satisfaction with working hours at ages of family beginning and at ages of being in charge of the elderly were higher in Anglo-Saxon welfare regime countries, showing greater disparities than in Eastern, Southern and Nordic welfare regime countries.

The most prevalent reasons for dissatisfaction with working hours were excessive working hours, shift work, and inability to influence the work schedule. Women from Southern, Nordic and Continental countries declared excessive working hours as the main reason for dissatisfaction. This could possibly be because during the economic crisis in Europe, men became unemployed and women extended their working hours.<sup>28</sup> The inability to influence the work schedule was declared more often by men in Continental, Eastern and Nordic Countries, as was shift work in those countries and in Southern European Countries. This is in line with the new employment definition which created boundaryless jobs with irregular working hours.<sup>2,3</sup> Moreover, we found associations

**Table 4**

Prevalence ratio of satisfaction in work-life balance from satisfaction in working hours among European current workers (EU-28) older than 50 years old (elderly people in charge) stratified according to individual, employment, and welfare regime country classification in 2014.

	Men > 50 years old (n = 1011)		Women > 50 years old (n = 1122)	
	aPR <sup>a</sup>	CI95%	aPR <sup>a</sup>	CI95%
Overall	3.19	(2.41-4.22)	2.82	(2.04-3.90)
<i>Age at the end of the studies</i>				
< 15 years	5.42	(2.39-12.30)	3.38	(1.27-8.98)
16-19 years	1.97	(1.55-2.51)	2.31	(1.80-2.96)
> 20 years	4.29	(2.32-7.93)	3.24	(1.87-5.61)
Still studying	NC	NC	NC	NC
<i>Occupation</i>				
Self-employed	2.66	(1.92-3.68)	1.88	(1.17-3.05)
Employee	3.57	(2.21-5.75)	3.41	(2.37-4.92)
Manual workers	2.30	(1.19-4.45)	1.32	(0.99-1.76)
<i>Work time</i>				
Part time	2.04	(0.89-4.70)	2.06	(1.44-2.94)
Full time	3.36	(2.57-4.40)	3.51	(2.34-5.26)
<i>Work contract</i>				
Permanent contract	3.04	(2.42-3.83)	2.94	(2.07-4.16)
Fixed term contract	NC	NC	1.88	(1.15-3.06)
Temporary employment	NC	NC	NC	NC
Apprenticeship	NC	NC	NC	NC
<i>Country typologies<sup>b</sup></i>				
Continental	4.51	(2.76-7.36)	NC	NC
Anglo-Saxon	2.31	(2.18-2.44)	10.14	(5.72-18.02)
Eastern European	3.41	(2.03-5.72)	2.06	(1.77-2.40)
Southern European	2.82	(2.04-3.92)	2.95	(1.37-6.36)
Nordic	1.42	(1.08-1.88)	2.63	(1.57-4.41)

CI95%: confidence interval of 95%; NC: not converge; PR: prevalence ratio.

<sup>a</sup> PR: adjusted prevalence ratios for sex, age, work time and work contract.

<sup>b</sup> Country typologies: Continental area (Austria, Belgium, Germany, France, the Netherlands and Luxembourg), Anglo-Saxon area (Ireland and the United Kingdom), Eastern European area (Croatia, Czech Republic, Estonia, Hungary, Lithuania, Latvia, Poland, Rumania, Bulgaria, Slovenia and Slovakia), Southern European area (Cyprus, Greece, Spain, Italy, Malta and Portugal) and Nordic countries (Denmark, Finland and Sweden).

between the main dissatisfaction reasons with working hours and satisfaction with work-life balance (data not shown).

Poor work-life balance has been described as a predictor of sickness absence<sup>29</sup> and poor self-declared health status.<sup>8</sup> Also, inequalities in working conditions may create health inequalities<sup>30</sup> and we have observed differences in the reporting of work-life balance. Moreover, disparities observed in poor work-life balance across welfare regimes show that, even though EU legislation covers all the countries equally, country-specific measures for work-life compatibility<sup>4</sup> in some countries have improved work-life balance and, therefore, further measures should be applied. This study has some limitations. First, the main variable “satisfaction with work-life balance” was measured from a single question and therefore it may not assess the several perspectives of the work-life balance (i.e. work-life imbalance due to lack of time or lack of money). Future studies may measure the satisfaction with work-life balance by taking into account the several perspectives it has. In this study we could not adjust by having children, nor for caring for the elderly and disabled, which have been described predictors of poor work-life balance, especially among women<sup>19</sup>. Instead, we did a sub-analysis with the population group at the age of having the first child (20-35 years old) and at the age of being in charge of the elderly (>50 years old). Also, we cannot establish causality in the relationship between satisfaction with working hours and work-life balance due to the cross-sectional design of the study. Instead, we can infer associations. This is the first study examining the associations between satisfaction with working hours and

work-life balance through several factors that explain well-being to the occupation; individual factors (i.e. sex, age, educational level), work and job conditions (i.e. occupation, work time and contract) and country characteristics (i.e. country welfare regime) and to describe the main reasons for dissatisfaction with working hours. Finally, we calculated the PR using the Poisson family, which gives us more robust associations.<sup>31</sup>

## Conclusions

Satisfaction with working hours and work-life balance was high in Europe, but we found differences between sex, age at the end of the studies, welfare regimes and work characteristics. Also, there are still differences in the main reasons for dissatisfaction between sexes and welfare regimes. Thus, the evidence shows that inequalities in working conditions are still present and that, even though one of the policy priorities of the EU is work-life balance, there is still a lot of work to be done.

## Editor in charge

Carlos Álvarez-Dardet.

## Transparency declaration

The corresponding author on behalf of the other authors guarantee the accuracy, transparency and honesty of the data and information contained in the study, that no relevant information has been omitted and that all discrepancies between authors have been adequately resolved and described.

## Authorship contributions

J.M. Martínez-Sánchez and N. Matilla-Santander conceived the study. N. Matilla-Santander prepared the database and analyzed the data with the support of all the authors (J.C. Martín-Sánchez, C. Lidón Moyano, A. González Marrón, K. Bunch, J.M. Martínez-Sánchez). N. Matilla-Santander drafted the manuscript, which was critically revised by J.M. Martínez-Sánchez. All authors contributed substantially to the interpretation of the data and to revising the manuscript. All authors approved its final version.

### What is known about the topic?

Long working hours and low wages have been described as predictors of poor work-life balance. Time has been proposed as a social determinant of health and work-life balance is considered a policy priority in the European Union.

### What does this study add to the literature?

This study gives an update of the satisfaction with working hours and work-life balance in the European Union workers. Satisfaction with working hours and work-life balance is high in Europe, but there are still differences in the main reasons for dissatisfaction between sexes and welfare regimes.

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## Conflicts of interest

None.

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## Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at [doi:10.1016/j.gaceta.2017.10.006](https://doi.org/10.1016/j.gaceta.2017.10.006).

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