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# Educational inequalities in parental care time: Cross-national evidence from Belgium, Denmark, Spain, and the United Kingdom

Pablo Gracia [a, *], Joris Ghysels [b]

[a] European University Institute, Italy
[b] TIER, Maastricht University, The Netherlands

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ABSTRACT

This study uses time-diary data for dual-earner couples from Belgium, Denmark, Spain, and the United Kingdom to analyze educational inequalities in parental care time in different national contexts. For mothers, education is significantly associated with parenting involvement only in Spain and the United Kingdom. In Spain these differences are largely explained by inequalities in mothers' time and monetary resources, but not in the United Kingdom, where less-educated mothers disproportionally work in short part-time jobs. For fathers, education is associated with parenting time in Denmark, and particularly in Spain, while the wife's resources substantially drive these associations. On weekends, the educational gradient in parental care time applies only to Spain and the United Kingdom, two countries with particularly large inequalities in parents' opportunities to engage in parenting. The study shows country variations in educational inequalities in parenting, suggesting that socioeconomic resources, especially from mothers, shape important variations in parenting involvement.



## 1. Introduction

Parental care involvement is an essential activity for child wellbeing (Bianchi et al., 2006; Gauthier et al., 2004). Parents are aware of their crucial role as care providers and tend to be strongly motivated to engage in child care (Hallberg and Klevmarken, 2003). Yet, the way parents participate in parenting activities differs substantially across the population (Monna and Gauthier, 2008). Scholars paid special attention to analyze social inequalities in parental care time, in order to better understand how the reproduction of social inequality operates in the family (Bodovski and Farkas, 2008; Lareau, 2003). Previous studies typically found that highly educated parents, as compared to less-educated parents, are more involved in different types of child care activities linked to children's socio-emotional and cognitive skills, which in turn plays an important role in the advantage of privileged children in schooling and the labor market (Craig, 2006a; Kalil et al., 2012).

At the micro level, scholars argued that *parenting norms* influence the educational gradient in parenting. Highly-educated parents are expected to be particularly identified with contemporary norms of intensive parenting, having

* Corresponding author. Department of Political and Social Sciences, European University Institute, Via dei Roccettini, 9, 50014, San Domenico di Fiesole, Florence, Italy.
*E-mail address:* pablo.gracia01@gmail.com (P. Gracia).

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ambitious educational and labor market aspirations for their children that allow them to reproduce their social status (Lareau, 2003; Kalil et al., 2012; Kohn, 1977). Also, socioeconomic disparities in *time and monetary resources* are expected to play an important role. Parents from affluent social backgrounds owe privileged resources to organize parental care activities, as they tend to have high levels of control and autonomy over their work time and schedules, as well as income power to outsource domestic labor, thus maximizing their capacities to allocate time to parenting activities (Bianchi et al., 2004). Yet, how socioeconomic factors influence educational inequalities in parenting time remains understudied.

At the macro level, we can understand how socioeconomic factors influence educational differences in parental care time by studying different *national contexts*. Sayer et al. (2004) argued that educational inequalities in parenting involvement are partly a byproduct of governments' universal provision of monetary and time resources to families, such as universal family-friendly policies to employed parents and monetary transfers to low-income families, which can moderate existing inequalities in parents' opportunities to engage in parenting. Yet, the literature has offered inconclusive evidence on how education influences parental care time across national contexts. The study of Dotti-Sani and Treas (2016) on 11 industrialized countries finds a positive educational gradient in maternal and paternal child care across virtually all countries. Other studies, however, reveal some clear cross-national differences in the effects of education on maternal care time (Guryan et al., 2008), as well as paternal care time (Sayer et al., 2004).

One clear gap in the literature is the insufficient attention paid to how socioeconomic resources influence educational disparities in parenting participation. The educational gradient in parenting, even when parenting norms differ across levels of education, can arguably diminish after accounting for the relative advantage of highly educated parents (i.e., use of job autonomy or income to maximize parental care time). However, the analytical approach of previous studies did not provide clear insights into how socioeconomic resources shape educational variations in parenting involvement. By studying this question, and do it in different national contexts, scholars can better understand the possible mechanisms leading to social inequalities in parental care involvement.

In this study, we analyze how employed parents with different levels of education spend time in child care activities by using time-diary data on couples from Belgium, Denmark, Spain, and the United Kingdom. These four countries show interesting variations to analyze this question. In Denmark, public institutions offer ample universal support to families with children, irrespective of their social background, as well as active work-family balance policies, income redistribution programs, and generous monetary transfers to low-skilled parents (Bonke and Esping-Andersen, 2011; Craig and Mullan, 2011; Esping-Andersen, 2009). In Belgium, public institutions provide generous cash transfers and universal family-friendly policies, while educational inequalities in income resources are generally modest (Ghysels, 2004; OECD, 2015). By contrast, Spain and the United Kingdom have a type of public policy that generally provides limited support to disadvantaged families, while both countries display large educational inequalities in parents' time and monetary resources (Gracia and Esping-Andersen, 2015; Esping-Andersen, 1999; Lewis, 2009; OECD, 2015). Altogether, these four cases offer a relevant comparative framework to study educational inequalities in parental care time.

The paper makes three main contributions. First, this study offers new *individual-level* evidence on how socioeconomic factors influence educational inequalities in parental care time in different national contexts. We consider in our analyses, like previous studies do, individuals' employment status (Sayer et al., 2004; Guryan et al., 2008), but also other understudied measures with potential influence on educational inequalities in parental care time, such as income levels and work schedules. This approach is particularly relevant when comparing our countries of study, with clear educational differences in monetary resources, time availability or employment profiles.

Second, we analyze how the *spouse's socioeconomic resources* influence parents' child care time. Parents often negotiate and coordinate their child care activities with the spouse, and can be highly responsive to the partner's time constraints and resources (Presser, 1994; Raley et al., 2012). Studies on specific countries found that the spouse's resources, specifically the wife's resources, influence parental care time, partly capturing the educational gap in parent-child time (Gimenez-Nadal and Molina, 2013; Gracia, 2015; Hays, 1996; England and Srivastava, 2013; Raley et al., 2012). These studies arguably capture gendered relations by which privileged women use their resources to foster men's egalitarian child care involvement. These studies typically focused on specific countries, mostly Anglo-Saxon countries, and often missed important variables of the spouse's resources and time constraints, such as the partner's income, employment constraints, and work schedules. Our study provides a couple perspective to different national contexts that helps us to better understand educational inequalities in parenting.

Third, we analyze educational differences in parental care, not only on weekdays, but also on weekends. On weekends, parents can engage in key parenting activities, such as socializing or playing with children, and supervising developmental activities. Parents, and particularly fathers, can increase their child care time on weekends, due to relatively high levels of free time on weekends (Hook and Wolfe, 2012; Yeung et al., 2001). But how education affects parents' participation in child care during weekends remains unclear. Less-skilled parents disproportionally work on weekends, and have limited resources to outsource demanding housework activities often scheduled at these days (Bianchi et al., 2004; Presser, 2003). Thus, college-educated parents might be privileged to spend time in child care on weekends, as a result of their relative advantage in time availability to engage in parenting. The focus on weekends in countries with different levels of educational inequalities in monetary and time resources, offers new relevant insights into the parenting literature.

## 2. Parental care time: micro and macro level studies

Most studies on educational differences in parental care time adopted a *micro-level approach*. These studies argued that highly educated parents are embedded in social contexts where intensive parenting norms and high aspirations on child outcomes dominate, leading well-educated parents to disproportionally engage in parenting (Kohn, 1977; Kalil et al., 2012; Lareau, 2003). Other studies stressed the role of inequalities in *time resources*. Less-educated parents typically have inflexible work conditions, lack of job autonomy, and scarce income to outsource domestic work, which might create educational inequalities in parents' capacities to allocate time to child care (Bianchi et al., 2004; Lesnard, 2008).

Micro-level studies found that highly educated parents are more active in child care than the less educated, especially in families with minor children, when returns to parental investments are strongest (Bianchi et al., 2006; Craig, 2006a; Gracia, 2014; Kalil et al., 2012). Parents, especially fathers, with privileged spouses, were found to be particularly active in parent-child activities (Gracia, 2015; England and Srivastava, 2013; Raley et al., 2012). In fact, England and Srivastava (2013) found that the educational gradient in paternal care time in the United States is substantially explained by the mother's education. This implies that privileged mothers, motivated by intensive child-centered norms, exert an active role in promoting fathers' intensive parenting behavior (Hays, 1996).

The *cross-national approach* to educational differences in parenting has received relatively little attention. Sayer et al. (2004) argued that in countries with limited universal support to families (i.e., limited work-family policies; poor benefits to low-income parents) there should be strong inequalities in parenting time, as institutions hardly moderate existing inequalities in parents' capacities to engage in parenting. Examples of these cases include Anglo-Saxon countries with '*market-oriented*' policies (i.e., United States, United Kingdom) or Southern European countries with '*family-oriented*' policies (i.e., Italy, Spain). By contrast, educational inequalities in parenting might be modest where governments provide active work-family packages or cash transfers to disadvantaged families (Sayer et al., 2004). Scandinavian countries with a *social-democratic*' policy tradition (i.e. Denmark, Sweden) are clear examples of national contexts with this type of institutional support.

Three studies have specifically analyzed educational differences in parental care time using a cross-national approach. First, the study of Sayer et al. (2004) on Canada, Italy, Germany, and Norway found a generalized strong educational gradient in mothers' child care time, with relatively weaker effects for German mothers. For fathers, they found a significant gradient in parental care time in Canada, Italy, and Germany, and a moderate one in Norway. Second, the study of Guryan et al. (2008) analyzed mothers' child care time in 14 countries with different institutional contexts and levels of economic development. Their results show a general positive educational gradient in maternal care time, but their findings reveal weak educational gaps in countries like Germany, France, and the Netherlands, and much stronger educational effects in nations like Italy, the United Kingdom, and the United States. Third, Dotti-Sani and Treas' (2016) study on 11 Western countries shows a generalized educational gradient in recent decades for both mothers' and fathers' child care involvement. Although these three studies provide relevant empirical evidence, their findings are mixed, providing insufficient evidence on the role of socioeconomic resources in influencing educational inequalities in parental care time.

Previous studies, despite making relevant progress, present some important gaps. Scholars paid little attention to how socioeconomic factors influence educational inequalities in parenting time, and missed key measures of the spouse's resources. Further, studies typically omitted the analysis of weekends, a relevant aspect to understand how social inequalities in time availability operate in parenting (Bianchi et al., 2004). We seek to cover these gaps by studying educational differences in parenting in four national contexts.

## 3. Four national contexts

Our study focuses on four European countries that differ in terms of institutional support to households and socioeconomic resources across parents with different levels of education. Table 1 summarizes these four national contexts.

In Denmark the government implements active policies to alleviate work-family strains, gender inequalities in the family, and social inequality (Craig and Mullan, 2011; Gracia and Esping-Andersen, 2015; Lewis, 2009). The Danish government offers generous cash benefits targeted to disadvantaged families (Esping-Andersen, 2009). Employment regulation in Denmark ensures modest wage inequalities, including low inequalities between less-skilled and high-skilled workers, while social policy keeps low levels of exclusion among families (OECD, 2008; OECD, 2015). In short, less-skilled employed parents in Denmark are expected to have certain degrees of job control, work autonomy and income to be relatively involved in child care activities.

In Spain, the welfare state provides limited support to families with children, while households, and particularly women, are key actors in providing solidarity and care (Esping-Andersen et al., 2013; Jurado Guerrero and Naldini, 1996). Employed parents in Spain suffer severe constraints to balance inflexible work hours with parent-child activities (Gracia and Kalmijn, 2016). Yet, less-skilled workers experience particularly high levels of scarcity of time and income. Spain not only presents high levels of inequalities and relative poverty among disadvantaged families with children, but also significant income disparities between low-skilled and high-skilled workers (OECD, 2008; OECD, 2015). The Spanish labor market displays very high rates of low-paid temporary jobs that disproportionally attract less-skilled workers (Polavieja, 2003). Overall, less-skilled

**Table 1**
Indicators of parental care contexts in four countries.

| | Belgium | Denmark | Spain | UK |
|---|---|---|---|---|
| Maternal employment rates (1) a | 70% | 83% | 60% | 69% |
| Women's part-time employment (2) b | 33% | 25% | 22% | 39% |
| Children aged 0–2 in care centers (3) b | 34% | 62% | 21% | 26% |
| Public benefits to households (4) c, d | 15% | 17% | 11% | 12% |
| Gini coefficient (5) b, e | 0.28 | 0.24 | 0.32 | 0.35 |
| Child poverty rates (6) b | 9% | 3% | 17% | 10% |
| Earnings inequality (Atkinson's index) (7) f | 0.10 | 0.12 | 0.21 | 0.24 |
| Earnings gap by educational level (7) g | 23% | 21% | 32% | 40% |
| Parents with 'Flexible' work hours (8) h, i | 27% | 55% | 17% | 11% |

* *Notes:* (a) Data for 2008. (b) Data for 2005. (c) Data for 2003. (d) Social benefits in cash, as a proportion of GDP. (e) The Gini coefficient is the ratio of income inequality between the richest groups of one country and the poorest, with larger numbers indicating higher levels of income inequality. (f) Data for the period 2005–2006, measuring the Atkinson's index, ranging from 0 (when earnings are equally distributed) to 1 (when all earnings are concentrated in the hands of a single person). (g) Data for the period 2005–2006, based on own calculations, measuring the percentage difference in hourly earnings between high-skilled workers (with college education) and low-skilled workers (without college education). (h) Respondents who agreed with the statement that they have a high degree of flexibility to adapt their work schedules to their family needs. (i) Data for 2000 (Denmark), for 2001 (United Kingdom), 2003 (Spain), and 2005 (Belgium).
* *Sources:* (1) OECD (2013a). (2) Lewis (2009). (3) OECD (2007). (4) OECD (2015). (5) Eurostat Statistical Yearbook (2005). (6) OECD (2015). OECD (2013b). (8) Gracia et al. (2011).

employees in Spain might increase their work hours, or accept inflexible job conditions with low wages, leading them to a disadvantage in time and income to participate in parenting activities.

The United Kingdom presents a market-oriented model of public policy, with institutions providing low levels of redistributive polices, universal child care provision or work-family reconciliation policies (Esping-Andersen, 1999; Lewis, 2009). Work-family policies in the United Kingdom provide restricted options for full-time workers to balance paid work and family life (Lewis, 2009). The latter brings many mothers, especially the less skilled, to engage in part-time jobs, in order to reconcile paid work and child care (Gornick and Meyers, 2003; Tijdens, 2002). Income inequalities, also between low-skilled and high-skilled workers, are salient in the UK context, even if social policy in the previous decade was relatively successful at reducing child poverty (Eurostat, 2005; OECD, 2015). The scarce income and inflexible work conditions of less-skilled UK parents might pose them in a time and monetary disadvantage to engage in child care. However, the disproportionate presence of less-skilled working mothers in short part-time jobs can bring this group of mothers to a relative advantage in terms of time availability, which might partly moderate existing educational inequalities in maternal care involvement in the United Kingdom.

In Belgium, public policy offers generous work-family programs, child care facilities, and benefits to disadvantaged families (Ghysels, 2004; Jacobs and Gerson, 2005; Pfenning and Bahle, 2000). Belgium, like the UK case, presents high rates of maternal short part-time jobs that typically attract less-skilled mothers, giving them extra time availability outside working hours (Ghysels, 2004). Yet, unlike in the United Kingdom or Spain, in Belgium income inequalities across social classes are moderate, while cash benefits to disadvantaged families are generous (OECD, 2015; OECD, 2008). Overall, as less-skilled working parents in Belgium are not highly disadvantaged in monetary and time resources, it seems likely to find quite modest educational inequalities in parenting in this country.

## 4. Hypotheses

### 4.1. General educational variations

In the *first hypothesis*, we anticipate modest educational gradients in parental care time in Belgium and Denmark, as both countries show low levels of educational inequalities in monetary and time resources. In Spain and the United Kingdom, which present large educational inequalities in parents' resources to engage in parental care time, we expect strong educational disparities in parenting involvement.

**H-1**. The educational gradient in parental care time is modest in Belgium and Denmark, and high in Spain and the United Kingdom.

### 4.2. Individuals' socioeconomic factors

The *second hypothesis* expects the educational gradient in parental care time to be partly driven by socioeconomic resources (i.e., income inequalities, work constraints), capturing the disadvantage of less-skilled parents in access to these resources to engage in parenting (Bianchi et al., 2004). This implies that the educational gradient in parental care time generally diminishes when considering parents' socioeconomic resources.

**H-2**. The educational gradient in parental care time generally diminishes after accounting for the parent's socioeconomic resources.

The *third hypothesis* considers the moderating role of education in relation to mothers' part-time jobs. In economies with large part-time workforces, as in Belgium and the United Kingdom, less-educated mothers are disproportionally employed in short part-time jobs (Pettit and Hook, 2009). We expect educational differences in mothers' child care time in Belgium and the United Kingdom to actually increase when accounting for the educational selection into short part-time jobs, cancelling out the role of income inequalities in shaping educational differences in parenting. This expectation draws on the idea that spending less time in paid work generally gives an advantage to working parents to devote time to parenting activities (Presser, 1994).

**H-3**. In Belgium and the United Kingdom the educational gradient in mothers' child care time becomes larger when accounting for mothers' paid work hours.

### 4.3. Spouse's socioeconomic factors

The *fourth hypothesis* considers the role of the spouse's resources. Parents are expected to respond to the spouse's time constraints and resources by coordinating child care activities (Presser, 1994). As mentioned, previous studies on specific countries found that the spouse's resources significantly influence existing variations in parents' child care time, especially regarding fathers' child care (e.g., England and Srivastava, 2013; Raley et al., 2012). Likewise, we generally expect the partner's resources (i.e., income, education) to influence, in particular, the educational gradient in fathers' parenting time. We expect this effect to occur in different countries, implying that mothers' socioeconomic resources are important drivers of paternal care time across institutional and cultural contexts.

**H-4**. The spouse's socioeconomic resources partly account for educational differences in parental care time, but especially in paternal care time, across different countries.

### 4.4. Variations on weekends

Our *fifth hypothesis* pays attention to weekends. We generally anticipate positive educational effects on parenting time during weekends. Less-skilled parents disproportionally participate in rigid work journeys on weekends, having limited monetary resources to outsource gendered domestic activities that are often scheduled for these days (i.e., cleaning, cooking, doing laundries) (Bianchi et al., 2004; Cooke, 2011; Treas and Drobnic, 2010). This fact can lead less-educated parents to be disadvantaged to engage in child care activities on weekends. Such educational gradient might be particularly salient in Spain and the United Kingdom. In these two countries less-skilled working parents should be especially disadvantaged in minimizing their participation in paid and domestic work outside standard hours and days (i.e.,weekends), having also low income levels to organize demanding child care activities that most families arrange on weekends.

**H-5**. Parental education is generally associated with parenting involvement on weekends, but such associations are particularly strong in Spain and the United Kingdom.

## 5. Data and method

### 5.1. Data

We use time-diary data from the *Danish Time Use Survey* (2001), *Flemish Families and Care Survey* (2005), *Spanish Time Use Survey* (2003), and *UK Time Use Survey* (2000). Time-diary data are considered the best statistical sources to analyze how individuals spend time in specific daily activities (Gershuny, 2000). The surveys for Denmark, Spain, and the United Kingdom are included in the 'Multinational Time Use Study' (MTUS) database, recording 10-min activities for a random day. The Belgian survey contains 15-min activities, but has a similar structure to the MTUS surveys. The Belgian, Danish, and UK surveys have two diaries per respondent, one for a weekday and another for a weekend. The Spanish survey only contains one diary per respondent, either on a weekday or weekend day. The four surveys offer diary information for the two partners, as well as demographic and socioeconomic variables on the two spouses. The Belgian survey is restricted to the region of Flanders. Although there are cultural differences between the two Belgian regions (Flanders and Wallonia), both are similar in issues like work-family policy, demographics, and social inequalities (Ghysels, 2004). We generally refer to the Belgian case.

Our samples include dual-earner couples, married or cohabiting, with two spouses aged 25 to 59, and at least one child aged 0 to 15. Focusing on dual-earner couples allows us to analyze explicitly educational inequalities in parents' capacities to combine work constraints and parental care time. Yet, we acknowledge the selection of our samples. Table A-1 illustrates the selection process followed to construct our analytic samples. The Belgian sample represents a much larger share of diary respondents than the rest of samples, as the Belgian survey, unlike the other three surveys, directly interviewed families with

children. Table A-1 shows the proportion of households dropped for containing non-employed parents, single parents, and having incomplete socioeconomic or demographic data. We dropped 32 cases from the Belgian sample, 20 from the Danish, 68 from the Spanish, and 56 from the UK, due to missing income data. We acknowledge that missing income data might not be at random. Yet, these cases with missing income data were few, while analyses (not shown) present insignificant demographic and socioeconomic differences between the subsample of missing income data and our analytic samples. This might suggest that our samples do not have a clear bias due to missing income data. The definitive samples sum 627 Belgian couples, 310 Danish couples, 1489 Spanish couples, and 438 UK couples.

### 5.2. Dependent variable

Our dependent variable, *parental care time*, counts parents' total daily minutes in child care activities, including playing, teaching, and socializing with children, routine and physical care, and supervisory care. This measure considers only primary activities, which demand a strong direct involvement in the child, with critical implications for parent-child relations and child well-being (Bianchi et al., 2006). Unfortunately, our analyses could not include secondary or parallel activities, as the Belgian survey does not include secondary parental care measures comparable to those from the other three surveys. We acknowledge that differences in how respondents report secondary activities can produce bias on time use measures (Kitterod, 2001). Still, additional analyses looking at secondary activities (not shown) generally produced comparable results to those based only on primary care activities.

### 5.3. Independent variables

Our main independent variable, *education*, is a dummy variable that differentiates between college and non-college educated. Unfortunately, we could not include more than two educational categories, as the Danish sample contains very few parents with basic education, imposing difficulties to run robust analyses with three educational categories. Still, college education is a comparable variable capturing key variations in parents' preferences and resources across industrialized countries (Dotti-Sani and Treas, 2016).

### 5.4. Controls

We use three categories of *paid work time* of weekly work hours from mothers ('1–30'; '31–37'; '38 or more') and fathers ('1–37'; '38–44'; '45 or more'), capturing meaningful categories of work constraints across genders and countries. *Nonstandard work hours*, a dummy variable, includes those parents who worked at least 1 h between 6pm and 6am. *Income* includes categories of tertiles of net income ('low'; 'intermediate'; 'high'). We also consider the *spouse's education* in some models. *Children's age* contains three categories based on the age of the youngest child at home ('0–5'; '6–11'; '12–15'). The *number of children* represents the total number of children under age 16 at home. Finally, we use a continuous measure of the respondent's *age*.

### 5.5. Analytical strategy

We apply linear regressions using 'Ordinary Least Squares' (OLS) models separately by gender and country. While we acknowledge the existence of educational selection into employment, especially among mothers (Pettit and Hook, 2009), we do not use weights correcting for this specific selection, as we are interested in analyzing explicitly educational differences for working parents, rather than for the whole population of parents with children. Yet, as it is common in time-use studies, we use separate weights for the day of response, correcting for response differences for the five weekday journeys (Monday-Friday) and for the two observations of weekends (Saturday-Sunday). We explored the possibility of applying multiple imputation techniques to correct for missing income data. After finding in our robustness checks generally insignificant educational differences, and in other relevant demographic variables, between these subsamples of missing income cases and our definitive analytic samples, we decided not to use multiple imputation techniques or related techniques, such as full information maximum likelihood.

We follow three general empirical steps:

(1) We conduct *descriptive analyses* looking at the sample distributions and at socioeconomic and parental care time differences by education.
(2) We run three OLS models for *weekdays* on the effect of education on parental care time, with different controls in each model:
   - ***Model 1:*** Demographics
   - ***Model 2:*** Demographics + Individual socioeconomic resources
   - ***Model 3*:** Demographics + Individual socioeconomic resources + Spouse's socioeconomic resources
(3) We run an OLS model for *weekends* on the effect of education on parental care time, containing all control variables in the model.

**Table 2**
Summary of variables. Means and Standard Deviations.

| | Belgium | | Denmark | | Spain | | UK | |
|---|---|---|---|---|---|---|---|---|
| | Mean | S.D. | Mean | S.D. | Mean | S.D. | Mean | S.D. |
| **Mothers** | | | | | | | | |
| Child care minutes on weekdays | 74.28 * | *(85.43)* | 78.17 * | *(72.63)* | 81.20 * | *(81.51)* | 68.03 * | *(80.37)* |
| Child care minutes on weekends | 99.34 * | *(99.23)* | 77.40 * | *(87.18)* | 80.94 * | *(102.93)* | 66.63 * | *(82.54)* |
| College degree | 0.50 * | | 0.55 * | | 0.33 * | | 0.35 * | |
| Paid work: 1–30 weekly hours | 0.44 | | 0.23 | | 0.27 | | 0.43 | |
| Paid work: 31–37 weekly hours | 0.20 | | 0.66 | | 0,28 | | 0.23 | |
| Paid work: > 37 weekly hours | 0.35 | | 0.11 | | 0.45 | | 0.34 | |
| Non-standard work hours | 0.27 * | | 0.12 * | | 0.30 * | | 0.20 * | |
| Low income | 0.38 | | 0.34 * | | 0.23 * | | 0.34 * | |
| Medium income | 0.36 | | 0.25 | | 0.38 * | | 0.32 | |
| High income | 0.26 | | 0.41 | | 0.39 | | 0.32 | |
| Age | 36.72 * | *(5.97)* | 38.61 * | *(6.08)* | 37.65 * | *(5.31)* | 37.18 * | *(6.34)* |
| **Fathers** | | | | | | | | |
| Child care minutes on weekdays | 46.31 * | *(64.42)* | 45.23 * | *(60.76)* | 38.96 * | *(59.01)* | 32.25 * | *(55.51)* |
| Child care minutes on weekends | 59.20 * | *(78.13)* | 44.76 * | *(73.19)* | 58.38 * | *(81.27)* | 37.19 * | *(61.09)* |
| College Degree | 0.44 * | | 0.46 * | | 0.27 * | | 0.30 * | |
| Paid work: 1–37 weekly hours | 0.14 | | 0.47 | | 0.15 | | 0.22 | |
| Paid work: 38–44 weekly hours | 0.49 | | 0.32 | | 0.33 | | 0.31 | |
| Paid work: > 44 weekly hours | 0.36 | | 0.21 | | 0.52 | | 0.47 | |
| Non-standard work hours | 0.37 * | | 0.32 * | | 0.50 * | | 0.43 * | |
| Low income | 0.37 | | 0.23 * | | 0.27 * | | 0.45 * | |
| Medium income | 0.34 | | 0.32 | | 0.29 * | | 0.27 | |
| High income | 0.29 | | 0.45 | | 0.44 | | 0.28 | |
| Age | 39.89 * | *(6.25)* | 40.92 * | *(6.93)* | 39.95 * | *(5.69)* | 39.41 * | *(6.93)* |
| **Household** | | | | | | | | |
| Child aged 0–5 | 0.50 | | 0.42 | | 0.49 | | 0.41 | |
| Child aged 6–11 | 0.33 | | 0.37 | | 0.34 | | 0.35 | |
| Child aged 12–15 | 0.17 | | 0.21 | | 0.16 | | 0.24 | |
| Number of children | 1.52 | *(0.89)* | 1.80 | *(0.81)* | 1.62 | *(0.63)* | 1.74 | *(0.75)* |
| **N** | 627 | | 310 | | 1489 | | 438 | |

*T*-tests = $^{*}p < 0.05$.
*Note:* Dual-earner couples with at least one child aged 0–15. *T*-tests show gender differences for comparable measures. Standard deviations are in the second column, in parentheses, using italics.

## 6. Results

### 6.1. Sample distributions

Table 2 shows *summary statistics* for our variables of analyses. Consistent with previous studies (Craig and Mullan, 2011; Gracia and Esping-Andersen, 2015; Sayer and Gornick, 2011) countries differ in the total child care minutes, while mothers are significantly more involved than fathers in child care. Mothers' child care minutes during weekdays are highest in Spain (81), followed by Denmark (78), Belgium (74), and the United Kingdom (68). On weekends, the highest average minutes of maternal child care are found in Belgium (99), followed by Spain (81), Denmark (77), and the United Kingdom (67). Paternal care minutes on weekdays are highest in Belgium (46), followed by Denmark (45), Spain (39), and the United Kingdom (33). On weekends, Belgian (59) and Spanish (58) fathers are those who spend more time in child care activities, followed by Danish (45) and UK (37) fathers. The proportion of college-educated parents ranges from about 50% in Belgium and Denmark to close to 35% in the United Kingdom and 30% in Spain. Mothers are overrepresented within the college educated, consistent with recent evidence on gender differences intertiary education (OECD, 2012). Table 2 presents a useful description of all our variables of study.

### 6.2. Educational distributions

Table 3 presents relevant information on the *educational distributions* in parents' monetary and time resources in the four countries of study. For mothers, the educational income gap ranges from 22% in Denmark and 25% in Belgium to 43% in the United Kingdom and 47% in Spain. Less-educated mothers are overrepresented among short part-time workers, but these differences are only significant in Belgium and the United Kingdom. While in Denmark college-educated mothers are overrepresented among those working 45 h or more, in Spain less-educated mothers are those who disproportionally overwork. Only in Spain less-educated mothers are significantly represented among non-standard workers. Overall, Spain presents the largest educational inequalities in mothers' monetary resources and work constraints, while the United Kingdom presents high inequalities only in monetary resources, clearly to a higher extent than Belgium and Denmark.

**Table 3**
Differences in income and paid work constraints by parental education.

| | Belgium | | | Denmark | | | Spain | | | United Kingdom | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Low | High | % Gap | Low | High | % Gap | Low | High | % Gap | Low | High | % Gap |
| **Mothers** | | | | | | | | | | | | |
| Monthly net income (average) | 1139.2 € | 1590.4 € | 28%* | 1598.9 € | 2044.1 € | 22% | 770.9 € | 1455.6 € | 47%* | 626.8 £ | 1102.6 £ | 43%* |
| Work ≤ 30 weekly hours (%) | 48 | 40 | −17%* | 25 | 22 | −12% | 28 | 25 | −11% | 46 | 37 | −20%* |
| Work ≥ 45 weekly hours (%) | 7 | 6 | −14% | 4 | 8 | 50%* | 24 | 16 | −33%* | 11 | 18 | 39% |
| Nonstandard work hours (%) | 25 | 29 | 14% | 10 | 14 | 29% | 33 | 23 | −30%* | 20 | 21 | 5% |
| **Fathers** | | | | | | | | | | | | |
| Monthly net income (average) | 1853.7 € | 2482.1 € | 25%* | 1988.2 € | 2738.4 € | 27%* | 1190.7 € | 1946.5 € | 39%* | 1281.2 £ | 1906.3 £ | 33%* |
| Work ≥ 45 weekly hours (%) | 35 | 36 | 3% | 22 | 20 | −9% | 56 | 43 | −23%* | 46 | 49 | 6% |
| Nonstandard work hours (%) | 36 | 38 | 5% | 30 | 34 | 12% | 54 | 41 | −24%* | 45 | 39 | −13% |

*T*-tests = $^{*}p < 0.05$.
*Note:* Distributions by country and gender comparing highly educated parents (with a college degree) to less-educated parents (without a college degree). The column on relative differences by education presents the percentage educational gap, showing information on whether these differences are significant at 95%. For comparable purposes, income data for the Danish krone was converted into euros, using the general exchange rate from 2000 to 2001.

Table 3 also presents relevant socioeconomic differences by fathers' education. The income gap by education ranges from 25% in Belgium and 27% in Denmark to 39% in the United Kingdom and 41% in Spain. Spain is the only case where the less educated are clearly overrepresented among fathers working at least 45 weekly hours. Spain is also the only country where less-educated fathers are significantly located among those working non-standard hours, with less pronounced differences for UK fathers. Overall, fathers' educational inequalities in income and work constraints are strongest in Spain, while the United Kingdom shows large gaps in income, less so in work constraints. By contrast, we observe modest educational variations among Belgian and Danish fathers.

### 6.3. Descriptive results

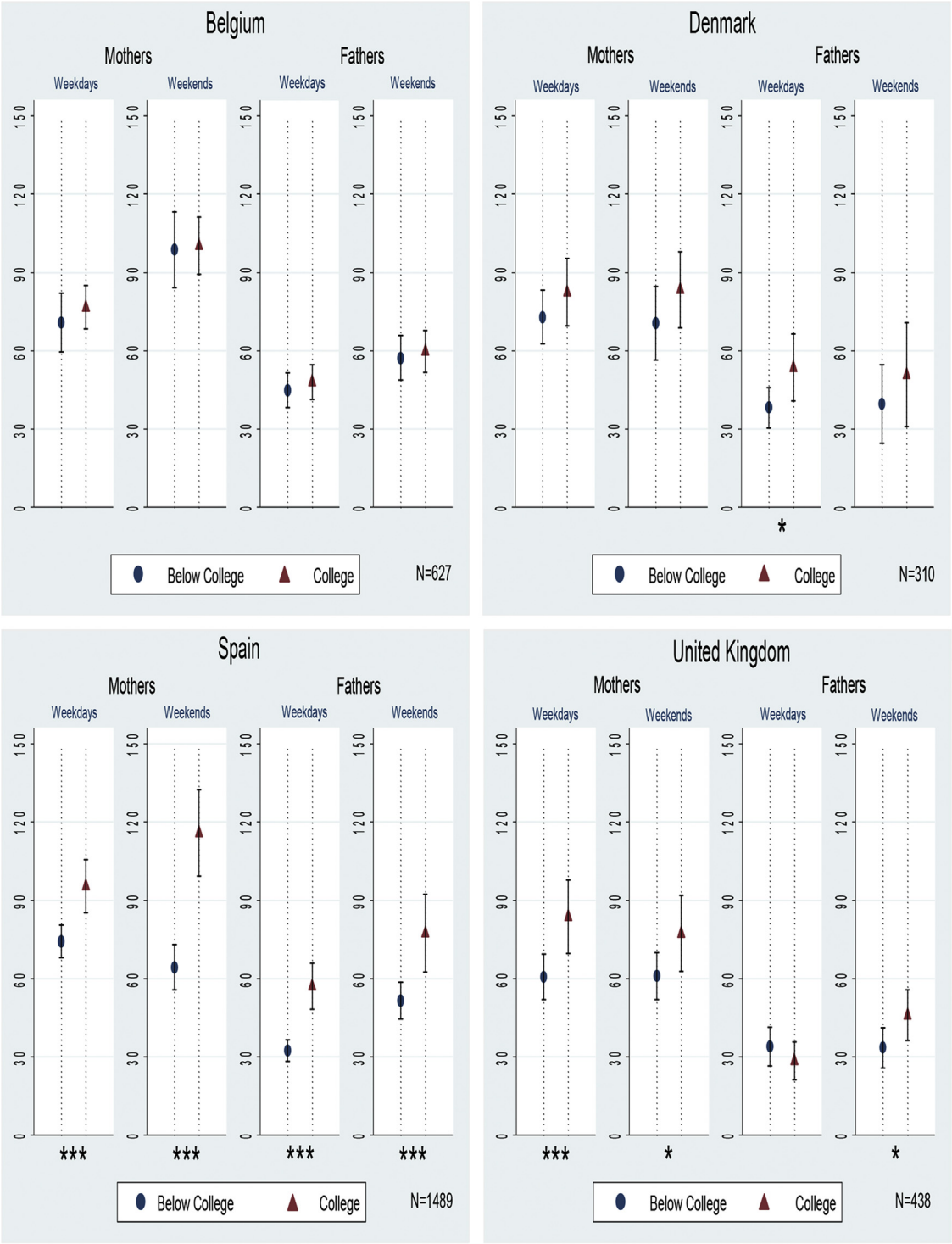
Fig. 1 shows average educational differences in parental care time in the four countries. For mothers, in Spain we observe a clear gradient in child care minutes between the college and non-college educated on weekdays (74 versus 95), and especially on weekends (64 vs. 116) ($p < 0.001$). In the United Kingdom we also see a clear educational gradient in maternal care time, yet less pronounced than in Spain, both on weekdays (61 vs. 84) ($p < 0.001$) and weekends (61 vs. 77) ($p < 0.05$). In Denmark, we see moderate educational gradients in mothers' child care minutes on weekdays (73 vs. 82), and slightly larger on weekends (70 vs. 83). In Belgium, the educational gradient in mothers' child care is modest during weekdays (71 vs. 77), especially on weekends (99 vs. 100).

Fig. 1 shows, for fathers, very clear educational gradients in the average parental care minutes in Spain, both on weekdays (32 vs. 57) and weekends (52 vs. 77) ($p < 0.001$). In Denmark, we see a substantial educational gradient in paternal care minutes on weekdays (38 vs. 53) ($p < 0.05$), but less so during weekends (40 vs. 51). In Belgium, the educational gradient in paternal child care minutes is modest on weekdays (45 vs. 48) and weekends (58 vs. 60). Finally, in the United Kingdom less-educated fathers spend some more minutes of child care during weekends (34 vs 29), but the higher educated clearly spend more time in child care on weekends (33 vs. 46) ($p < 0.05$).

### 6.4. Multivariate analyses on weekdays

Fig. 2 presents the OLS models for *weekdays*. Model 1 has basic demographic controls. Model 2 adds the individual's resources. Model 3 is the full model, adding also variables of the spouse's resources. For mothers, in Belgium we find an insignificant educational gap in maternal child care on weekdays, even if this gap becomes larger with socioeconomic controls. In Denmark, we find insignificant educational gaps in maternal care involvement across models. In Spain, a significant educational gradient in mothers' child care time is observed in the basic model ($\beta = 17$; $p < 0.01$), but this gradient becomes insignificant after controlling for the mother's socioeconomic factors ($\beta = 8$). In the United Kingdom, we find a significant educational gradient of 17 min ($p < 0.05$), while this gradient becomes stronger when accounting for the mother's socioeconomic factors ($\beta = 25$; $p < 0.01$), even if the educational gap is reduced again in the full model ($\beta = 16$; $p < 0.05$).

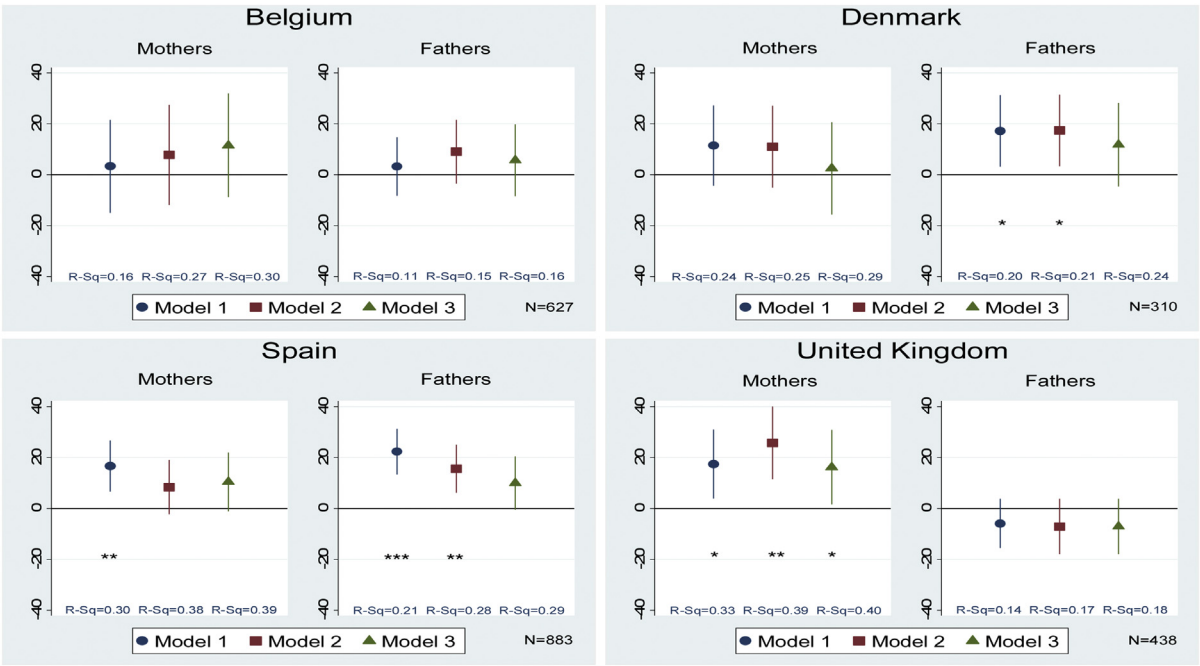
Fig. 2, regarding fathers, shows in Belgium generalized insignificant educational effects on child care time. In Denmark, we observe a significant educational gradient in paternal care time in the basic model ($\beta = 17$; $p < 0.05$), but this gradient becomes insignificant when controlling for the spouse's resources ($\beta = 12$). In Spain, in the basic model we observe strong educational effects on paternal care time ($\beta = 22$; $p < 0.001$), which remain significant with the individual's controls ($\beta = 16$; $p < 0.01$), but not when controlling for the spouse's resources ($\beta = 10$). In the United Kingdom, we observe negative, but insignificant, effects of education on fathers' child care time during weekdays.




T-tests: $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

*Note:* Average parental care minutes for weekdays (Monday-Fridays) and weekends (Saturday-Sunday) by education, with confidence intervals at 95% levels, and t-test calculations on educational differences.

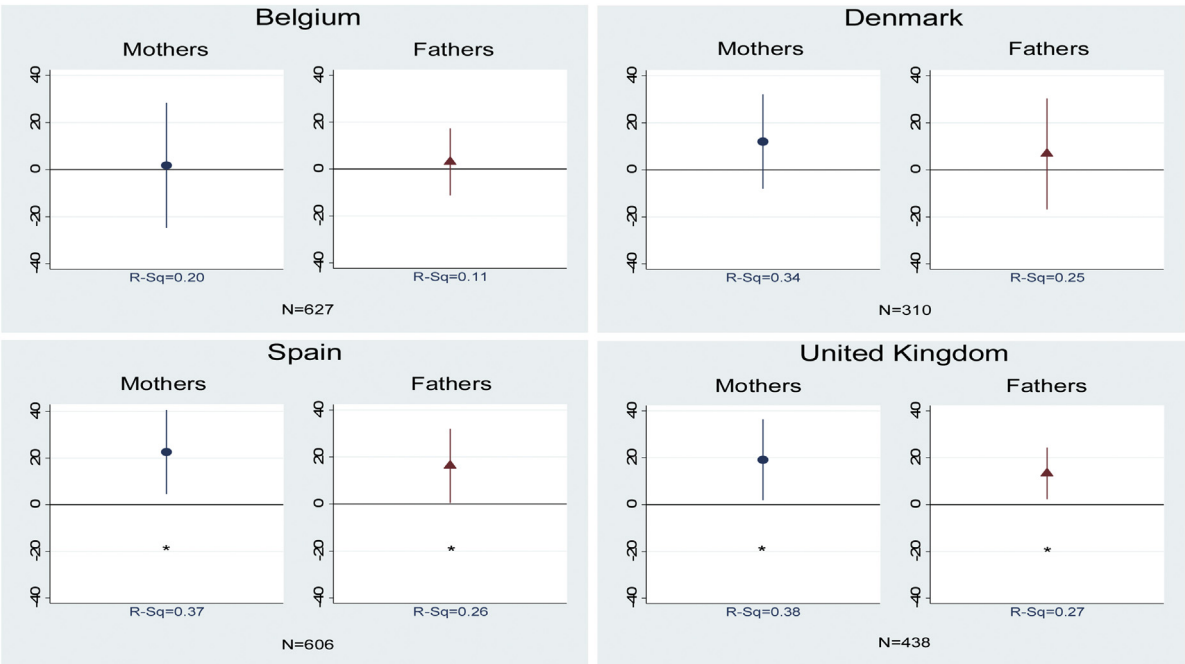
**Fig. 1.** Average parental care minutes. Differences by gender and day of the week.




P-values: $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

*Note:* Coefficients of college education, with confidence intervals at 95%, based on OLS models for weekdays. *Model 1* includes demographic factors (age, number of children, and children's age). *Model 2* controls for demographics and parent's socioeconomic resources (work hours, work schedules, and income). *Model 3* controls for demographics, parent's socioeconomic resources, and spouse's socioeconomic factors (partner's education, work time, work schedules, and income).

**Fig. 2.** OLS models. College education coefficients by country and gender on weekdays.




P-values: $^{*}p < 0.05$

*Note:* Dual-earner couples with children aged 0-15. Results of coefficients of college education from OLS models for weekends, with confidence intervals at 95%. All models control for: Parent's paid work hours, Parent's income, Spouse's education, Spouse's work hours, Spouse's income, Age, Children's age, and Number of children.

**Fig. 3.** OLS models. College education coefficients by country and gender on weekends.

### 6.5. Multivariate analyses on weekends

Fig. 3 presents the effects of college education on parental care time in the OLS models for *weekends*. Results for mothers show insignificant educational differences in child care time in Belgium on weekends. In Denmark we find a larger, but insignificant, educational gradient in maternal care time. By contrast, in Spain and the United Kingdom there is a significant educational gradient in child care time on weekends of, respectively, 23 and 19 min ($p < 0.05$). For fathers, we observe an insignificant educational gradient in child care time for weekends in both Belgium and Denmark, while in Spain and the United Kingdom we find significant effects of college education, showing gaps of, respectively, 16 and 13 min ($p < 0.05$). In short, on weekends education only has significant effects on parents' child care time (both among mothers and fathers) in Spain and the United Kingdom, being these effects net of demographic and socioeconomic factors.

### 6.6. Additional analyses: routine and interactive activities

We run additional analyses for the type of activities by differentiating between *routine care* (physical care, supervisory care, basic care) and *interactive care* (parent-child socializing, teaching, playing with children). This analytical distinction is relevant to understand gender inequalities, as mothers disproportionally engage in routine activities, linked to parents' energy and time demands, and with lower levels of satisfaction (Craig, 2006b; Roeters and Gracia, 2016). Yet, looking at these two activities is also relevant to understand how the educational gradient operates in parenting involvement and how it does it across national contexts. Both routine and interactive activities are crucial for child development, but have distinct implications for children's physical development, socio-emotional well-being or human capital accumulation (Bianchi et al., 2006).

Table A-3 presents the full models on weekdays for routine and interactive child care activities. We find interesting educational differences, net of demographic and socioeconomic factors. For Spanish mothers we find a positive educational gradient in interactive care ($p < 0.05$), while for Spanish fathers the educational gradient exists only in routine care ($p < 0.05$). For UK mothers we find an educational gradient in routine care only ($p < 0.05$). Educational differences in parenting in Denmark and Belgium are generally insignificant, both in routine and interactive care. These analyses show, except for Spanish mothers, that the parenting educational gradient on weekdays is disproportionally concentrated in routine activities, which are often demanding, highly structured and time-inflexible practices that occur on a random weekly day (Gracia and Esping-Andersen, 2015; Hook and Wolfe, 2012). Future research should look more carefully at this topic by examining more countries, and offering a wider variety of parenting activities across days of the week.

## 7. Discussion

This article used time-diary data to investigate educational inequalities in parental care time among dual-earner couples from Belgium, Denmark, Spain, and the United Kingdom. Studying educational inequalities in parenting involvement is important to broadly understand social inequalities in family life and children's life chances. The study not only offers innovative evidence on how socioeconomic factors can drive educational inequalities in parenting involvement, but also does it for four countries with clear differences in public support to families and educational inequalities in income levels and work constraints. Our study suggests that, even if educational differences in parental values and child-oriented norms might operate as key drivers in parenting practices (Lareau, 2003), much more attention needs to be paid to how socioeconomic resources (i.e., monetary or time related) influence educational differences in parenting involvement. In so doing, our study contributes to the literature by adding more precise evidence than in previous studies on the conditions under which educational inequalities operate in parenting (Dotti-Sani and Treas, 2016; Guryan et al., 2008; Sayer et al., 2004).

Results were quite consistent with expectations, but we also found several interesting unexpected results. At a *general level*, for a random weekday, we hypothesized a strong educational gradient in parenting in Spain and the United Kingdom, and moderate educational gaps in Belgium and Denmark, mirroring cross-national variations in public support to families and educational inequalities in monetary and time resources (*Hypothesis 1*). For mothers, we indeed found a salient educational gradient in parental care time in the United Kingdom, and particularly in Spain, while educational variations in maternal care time were modest in Belgium and Denmark. For fathers, we did find a strong educational gradient in Spain. But we also found a clear, yet more modest, educational gradient in paternal care time in Denmark. Educational differences in fathers' child care on weekdays were modest in Belgium. In the United Kingdom, unlike expectations, we found negative educational effects for fathers, yet these were clearly insignificant. These findings show cross-national variations in the educational gradient in parents' child care involvement, being these variations in line with expectations for mothers, and only partly for fathers.

We paid particular attention to the role of socioeconomic resources in shaping educational inequalities in parenting. We generally expected the educational gap in parental care time to become weaker when considering differences in parents' monetary and time resources (*Hypothesis 2*). But we anticipated an increasing educational gradient for Belgian and UK mothers when accounting for the important selection of less-educated mothers into short part-time jobs in these two

countries, as this can lead to a relative advantage in terms of time availability for child care (*Hypothesis 3*). Further, we expected the spouse's resources to substantially account for the observed educational differences in parents' child care involvement, and particularly so for fathers' child care, as more privileged women are expected to use their socioeconomic resources to foster their husband's involvement in parenting activities (*Hypothesis 4*).

Results on the role of socioeconomic factors in educational differences in parenting were generally in line with expectations. For mothers, the educational gap in child care time in Spain became insignificant after accounting for inequalities in income, overworking or working irregular hours, where less-educated employed mothers are clearly disadvantaged in Spain. In the United Kingdom, the educational gradient in mothers' child care time became larger when considering socioeconomic factors, including educational differences in paid work hours. In Belgium, however, the educational gradient in mothers' child care was insignificant in all models, even if it increased when accounting for work constraints. For Danish mothers, we found generally insignificant educational differences in parenting involvement on a random weekday. These findings suggest that socioeconomic factors influence the degree of educational inequalities in mothers' parental care time. However, they operate differently across countries. In Spain, the privilege of college-educated working mothers seems to play an important role in their parenting practices. Meanwhile, educational inequalities in parenting for UK mothers could be stronger if the less educated worked as many hours as highly educated mothers do.

For fathers, we found that the spouse's resources play a substantial role in educational differences in paternal care time. The effect of education on paternal care involvement that we found in Denmark and Spain became largely insignificant only after accounting for the wife's resources. These results are consistent with studies on specific countries (e.g., England and Srivastava, 2013; Gracia, 2015). Our results imply that such a phenomenon can be generalized to different industrialized countries, like Denmark and Spain, suggesting that the gendered organization of family life brings more privileged mothers to use their resources to foster their husband's participation in parenting (Hays, 1996).

We finally looked at a relevant question to understand time resources in family life: how education influences parenting involvement on *weekends*. We anticipated strong inequalities in parental care time on weekends in Spain and the United Kingdom, where educational gaps in income and time constraints on weekends are likely to be particularly salient (*Hypothesis 5*). Consistent with expectations, the weekend's educational gradient was insignificant in Belgium and Denmark, and it was significant in Spain and the United Kingdom, both for mothers and fathers. These findings suggest that on weekends there exist educational inequalities in parents' capacities to organize child care activities, resulting from variations in time constraints (Bianchi et al., 2004). But these results also imply that such inequalities differ across countries. In Spain and the United Kingdom, which are countries with high levels of social inequality, less-educated parents are particularly likely to face income constraints to reduce demanding housework activities on weekends, or might disproportionally work outside standard hours and days, one disadvantage towards parenting that seems to be more moderate in Belgium and Denmark.

We have to acknowledge some shortcomings. First, we paid little attention to the *nature of parenting activities*. We offered additional evidence on routine and interactive care, showing that, on a random weekday and net of demographic and socioeconomic factors, the educational gradient is generally more pronounced in routine activities, which are particularly time inflexible and require high levels of time organization (Bianchi et al., 2006). Yet, for lack of space, we could not go into detail with the analysis, explanation, and implications of educational differences in the type of child care activities. Further, we were unable to study secondary or parallel activities, for data restrictions. Finally, also for reasons of space, we did not analyze how educational inequalities in parental care time operate across children's developmental stages (Gracia, 2014; Kalil et al., 2012). Future related studies, we hope, will provide richer evidence in this direction.

Second, we focused on a *selected sample* of dual-earner couples with children. Thus, we excluded from our sample those couples with non-employed parents and single-parent families, two key demographic groups. Additional analyses for all couples with children (not shown) revealed similar educational gradients in parental care time to those observed for dual-earner couples. In Table A-2 (Appendices) we present data on the sample distributions for employed single mothers with children, showing that married or cohabiting mothers have younger children, higher levels of education, and work less hours than single mothers. These differences, which are consistent with related studies (McLanahan, 2004), are relatively minor. Table A-2 also shows interesting educational variations in child care time within employed single mothers. Future studies could analyze how single parents spend time in parenting activities across socioeconomic groups, a key question connected to the 'diverging destinies' literature (McLanahan, 2004), complementing the scarce existing literature on parenting involvement in one-parent families (Craig and Mullan, 2012).

Third, our *measure of education* consists of a dummy variable of college education. This is unfortunate, as we missed important variation in the main explanatory variable of our study. As explained in the method section, we used a dummy variable of education to get with a robust measure across surveys. Still, our measure of education is valuable, while it is comparable with the one used in several related studies (Guryan et al., 2008; Dotti-Sani and Treas, 2016). Future studies can provide more accurate information on parental education, including also other important variables, such as social class, that have so far received little attention in the literature on parent-child time (e.g., Gracia, 2015; Kohn, 1977; Lareau, 2003).

To conclude, this study arguably offers new insights into how educational inequalities operate in parenting. Our study suggests that previous scholarship arguing that parenting norms, or "preferences", are the essential drivers of educational inequalities in parenting have underestimated the role of monetary and time resources (Bonke and Esping-Andersen, 2011; Guryan et al., 2008; Lareau, 2003). We show that parents' and their spouse's resources, especially mothers' resources, can shape substantially the educational gradient in parental care time, which is generally stronger in national contexts with higher educational gaps in monetary and time resources. These findings have broad repercussions to understand social disparities in family life that are closely related to the reproduction of social inequalities. We hope that our study will help scholars to a better understanding of how social inequalities in parenting involvement operate in contemporary industrialized countries, inspiring also new empirical studies in this direction.

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## Appendices

**Table A-1**
Sample characteristics and analytic sample selection.

| | Belgium[a] | | Denmark[b] | | Spain[c] | | UK[d] | |
|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % |
| Households with diary respondents | 1.161 | *100* | 2.125 | *100* | 18.477 | *100* | 5.350 | *100* |
| Restricted to respondents aged 25–59 | 1.148 | *99* | 1.458 | *67* | 11.158 | *60* | 3.058 | *57* |
| Restricted to respondents with child aged 0–15 | 1.148 | *99* | 618 | *29* | 4.023 | *22* | 1.365 | *25* |
| Restricted to couples | 958 | *82* | 504 | *24* | 3.543 | *19* | 964 | *18* |
| Restricted to dual-earner couples | 687 | *59* | 357 | *17* | 1.809 | *10* | 522 | *10* |
| Restricted to cases with full data | 627 | *54* | 310 | *15* | 1.489 | *8* | 438 | *8* |

[a] The Belgian survey interviewed adults with children aged 0–15.
[b] The Danish survey interviewed individuals aged 18 or older.
[c] The Spanish survey interviewed individuals aged 10 or older.
[d] The UK survey interviewed individuals aged 8 or older.

**Table A-2**
Sample distributions and parental care time for employed single mothers.

| | Belgium | Denmark | Spain | UK |
|---|---|---|---|---|
| *Basic demographics* | | | | |
| % College educated | 38 | 41 | 30 | 30 |
| % Working < 30 h | 40 | 33 | 22 | 34 |
| % Working 31–37 h | 17 | 53 | 28 | 33 |
| % Working > 37 | 44 | 14 | 51 | 33 |
| % Child 0–5 | 32 | 26 | 20 | 19 |
| N | 70 | 69 | 300 | 302 |
| *Child care minutes on weekdays* | | | | |
| All mothers (Means) | 82 | 77 | 64 | 61 |
| Below college (Means) | 74 | 77 | 58 | 62 |
| College (Means) | 92 | 77 | 88 | 60 |
| N | 70 | 69 | 215 | 302 |
| *Child care minutes on weekends* | | | | |
| All single mothers (Means) | 96 | 93 | 66 | 64 |
| Below college (Means) | 91 | 81 | 57 | 62 |
| College (Means) | 102 | 111 | 106 | 69 |
| N | 70 | 69 | 85 | 302 |

**Table A-3**
OLS. Parents' minutes in routine and interactive child care activities on weekdays.

| | Belgium | | Denmark | | Spain | | United Kingdom | |
|---|---|---|---|---|---|---|---|---|
| | Routine | Interactive | Routine | Interactive | Routine | Interactive | Routine | Interactive |
| | Coeff. | Coeff. | Coeff. | Coeff. | Coeff. | Coeff. | Coeff. | Coeff. |
| College | 6.3 | 5.2 | 2.1 | 0.9 | 4.9 | 5.5* | 13.3* | 2.9 |
| Individual's Variables | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Spouse's Variables | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Household's Variables | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Intercept | 80.4** | 26.9 | 72.1* | 24.1 | 81.2*** | 17.2 | 101.2*** | 20.8 |
| Adj. R-Squared | 0.23 | 0.17 | 0.29 | 0.09 | 0.37 | 0.06 | 0.29 | 0.12 |
| *N* | 627 | 627 | 310 | 310 | 883 | 883 | 438 | 438 |
| College | 3.2 | 2.3 | 7.5 | 4.1 | 7.6* | 2.3 | −3.3 | −4.4 |
| Individual's Variables | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Spouse's Variables | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Household's Variables | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Intercept | 33.5 | 17.4 | 40.2 | 9.4 | 49.2** | 11.9 | 8.6 | 3.8 |
| Adj. R-Squared | 0.12 | 0.11 | 0.25 | 0.15 | 0.25 | 0.09 | 0.15 | 0.11 |
| *N* | 627 | 627 | 310 | 310 | 883 | 883 | 438 | 438 |

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.
Note: Dual-earner couples with children aged 0-15. Standard errors are not presented in the table. Routine activities include phyiscal care, supervision, and basic care. Interactive activities include socializing, teaching, and playing with children. All models control for individual's/spouse's work hours, individual's/ spouse's income, individual's/ spouse's nonstandard work hours, spouse's education, age, children's age, and number of children.

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