

## FOURTEEN

# The health penalty of single parents in institutional context

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Single parents are often observed to experience poorer health compared to coupled parents (Benzeval, 1998). This health penalty is associated with, and caused by, a variety of determinants that link back to single parents' socioeconomic resources and, as mounting evidence suggests, social policies (Glennester et al., 2009). Indeed, various aspects of socioeconomic disadvantage that are overrepresented among single parents (Marmot, 2010; McLanahan, 2004) – including a lower level of education, poverty and unemployment – have long been associated with poorer health outcomes (Marmot, 2010; Mirowsky & Ross, 2003). Inadequate employment conditions, as part of the triple bind, are also associated with poor health outcomes (see Esser and Olsen, Chapter Thirteen in this book). Yet, how strongly this disadvantage in terms of socioeconomic resources drives health penalties of single parents across countries is less well understood. Variation in disadvantages is likely to exist, particularly given the increasing evidence that some policy regimes perform better in protecting single parents against unemployment and economic poverty (Burström et al., 2010; Marmot & Wilkinson, 2005; Whitehead et al., 2000; Wilkinson & Marmot, 2003).

While the institutional context seems to play an important role in shaping single parents' health outcomes (Marmot, 2010), there are limits to what the current literature can say about this. First, most studies cover a single country or a limited number of countries (for example, Harkness, 2016; Marmot, 2010; Whitehead et al., 2000). This strategy allows for examining determinants of single parents' health in a great level of detail, but typically reduces the variability in both single parents' health outcomes and social policies (as well as other contextual factors). Second, a number of studies have been based on welfare-state typologies, which makes it inherently difficult to analyse programme-specific effects of various policies related to health of single parents, as well as to analyse the impact of changes

in policies over time (Bergqvist et al., 2013). Being able to do so, however, becomes increasingly important to assess the health impact of current reform developments in social policy.

As was described in more detail in the introduction to this book, policy making in Europe and beyond has been described as a turn towards activation (Bonoli, 2013), as well as based on a social-investment perspective (Morel et al., 2012). Common to these policy developments is an increased emphasis on employment to secure wellbeing and on the provision of services to stimulate and facilitate such employment, including of those with caring responsibilities (Vandenbroucke & Vleminckx, 2011). This strategy is particularly relevant for groups with low employment rates. Although policies have increased employment among single parents (Marmot, 2010), the extent to which this changed direction of welfare provisioning has succeeded in securing and improving single parents' wellbeing is still up for debate (Cantillon, 2011; Cantillon & Vandenbroucke, 2014; Nieuwenhuis et al., 2016).

From the perspective of the triple bind, whether and to what extent the increased focus on facilitating employment is associated with positive health outcomes for single parents needs to be critically assessed. Indeed, employment is known to be associated with positive health outcomes (Ezzy, 1993; Kim & Von dem Knesebeck, 2016; McKee-Ryan et al., 2005; Milner et al., 2014; Paul & Moser, 2009; Van der Noordt et al., 2014). Yet, given the often-limited resources of single parents, the gendered inequalities in the labour market and the potential of increased work–family conflict, it is unclear under which conditions single parents will be able to find and maintain employment that actually benefits their health. For instance, in the UK in the 1990s, employment was not associated with a health benefit for single parents unless they had access to additional supportive policies (Harkness, 2016). It is not enough to generate employment; the *type* of occupation and how well the wages protect against poverty need to be accounted for – as well as policies that address the (economic) wellbeing of those who are not in employment.

This chapter will examine the self-reported health of adults living in single-parent households by employment status, and in comparison to adults living in coupled-parent households. It does so for 20 European countries covering the period from 2004 to 2015. It will examine how social policies relate to single parents' self-reported health, differentiating between policies that facilitate employment and policies that provide financial support. A second important distinction is made between policies that focus specifically on families with

children (childcare and financial support or supplements to families with children) and general policies (active labour-market policies and social assistance generosity).

## Theory

### Poverty

Poverty is negatively associated with self-reported health (Gunasekara et al., 2011). Although being in poor health may negatively affect one's opportunity of earning an income that is adequate to avoid poverty (Kokko et al., 2000; Kröger et al., 2015; Mastekaasa, 1996), studies also provide evidence that inadequate income indeed causes poor health (Marmot & Wilkinson, 2005; Wilkinson & Marmot, 2003). A more recent longitudinal study of the health effects of moving into material deprivation, measured as a transition from affording to not affording a car, suggests that poverty reinforces conditions of ill health (Tøge & Bell, 2016).

As single parents are often reported to be at higher risk of poverty, as illustrated in the introduction chapter to this volume, it is hypothesised (H1) here that *the higher poverty risks contribute to the health penalty of adults living in single-parent households compared to adults in coupled-parent households.*

### Employment

As employment is a major source of income for households, health is assumed to be positively affected by employment by reducing poverty risks (Bartley, 1994; Catalano, 1991; Catalano et al., 2011; Tøge, 2016), though this mediating effect of income is somewhat disputed (Huijts et al., 2015; Tøge, 2016). Using the exact same longitudinal data (EU-SILC), Huijts et al. (2015) and Tøge (2016) come to different conclusions when investigating the health effects of unemployment. While Huijts et al. (2015) suggest that about 30% of the health effects of unemployment is driven by financial strain, Tøge (2016) claims that the mediating effect is half of this, but maybe nothing at all. These diverging results are probably due to the different statistical methods applied. While Huijts et al. (2015) use a cross-sectional design with control for observed differences at baseline, Tøge (2016) uses a longitudinal design that controls for all time-invariant factors, including the unobserved. This implies that the effect presented by Huijts et al. (2015) could be overestimated (due to selection bias), while the effect

presented by Tøge (2016) is on the conservative side. However, both studies suggest that employment positively affects health through mechanisms other than income alone; for instance, through supporting agency and self-efficacy, stimulating a more regular and healthy lifestyle and providing social contacts (Mirowsky & Ross, 2003). One of the pioneers in this field, Marie Jahoda (1982), constructed the latent deprivation model in order to explain the effect of unemployment on wellbeing. According to Jahoda (1982), time structure, activity, social contact, collective purpose and status are five latent benefits of employment, in that they all prevent distress and consequently health deterioration. Hence, we hypothesise that *employment also has a direct effect on health, over and above the indirect effect via lower poverty* (H2).

As single parents are less likely to be employed than coupled parents, this could explain part of the single parents' health penalty. Yet, even while employed, single parents face comparatively high risks of poverty (Horemans and Marx, Chapter Nine in this book; Nieuwenhuis & Maldonado, 2018). Employment and income poverty thus need to be analysed separately. Furthermore, given for instance their (on average) lower levels of education, the kinds of occupations single parents are employed in – and how these affect their health – remain to be seen.

## Policy

Ongoing policy developments are of potential relevance for the drivers of single parents' health in terms of their employment and income. This is clear in the activation turn related to the Lisbon Agenda (Bonoli, 2013). The idea that welfare states had to reorganise their policies is also connected to the identification of 'new social risks', such as low or inadequate education or skills, single parenthood and problems relating to combining work with family responsibilities (Taylor-Gooby, 2004). Typically, welfare-state policies began to include goals that include: 1) an all-encompassing focus on work; 2) cost containment; and 3) family policy as a productive factor (Cantillon & Vandenbroucke, 2014). In terms of policies, an increased emphasis on (spending on) services was intended to stimulate and facilitate employment (Vandenbroucke & Vleminckx, 2011). In the same period, cuts in cash benefits were prominent in many EU Member States (Fritzell et al., 2011). Hence, in this chapter we have good reasons to analyse health outcomes in relation to both in-kind services and cash benefits.

What we characterised in the introduction as the development of a social-investment perspective can be found traits of in the EU 2020 Agenda on Sustainable Growth and Jobs, which is the steering wheel

for European social and economic integration for the period 2010–20. In 2013, the Commission launched the Social Investment Package as an explicit manifestation of this policy logic. Any concrete policy reforms related to this observation period are, however, likely to materialise only beyond the observation period of this study, and whether there is a resource competition between government spending on services versus spending on cash benefits is still up for debate (Vandenbroucke & Vleminckx, 2011).

What has been observed, though, is that work–family reconciliation policies facilitate the employment of single parents and by doing so reduce their poverty risk (Maldonado & Nieuwenhuis, 2015). Similarly, applying a country-fixed effects analysis of macro-data, Stuckler et al. (2009) found that investments in active labour-market policies (ALMPs) might positively affect social determinants of health. Here, we hypothesise (H3) that *ALMPs, as key social-investment policies, have a similar impact on single parents' health by facilitating their employment (and thus partly reducing their poverty risks)*. Focusing on a policy that specifically targets families with children, we hypothesise (H4) that *public childcare has a similar effect*. Looking at childcare is important; in Chapter Eleven in this book, Van Lancker shows that childcare indeed facilitates single parents' employment, and that this was the most straightforward work–family policy to implement. Moreover, work–family reconciliation policies (such as childcare) are expected to operate by not only facilitating single parents' employment but also by reducing work–family stress and improving working conditions among those who are employed (Boushey, 2016; Esser and Olsen, Chapter Thirteen in this book; Heymann & Earle, 2010), and are thus expected to further improve the health benefits associated with the employment of single parents (cf. Marmot, 2010).

Yet, this social-investment-inspired policy shift is not without its critics. It has, for example, been claimed that its goals are largely achieved by shifting welfare-state provision from cash-benefit programmes to in-kind (and public) services, while meeting the goal of providing wellbeing through adequate employment proved 'much more difficult than some might have expected' (Cantillon & Vandenbroucke, 2014, p. xxi). In line with Morel et al. (2012, Chapter Fourteen), Nieuwenhuis and Maldonado (2015, p. 120) argued that 'social investment, by facilitating employment, can be a beneficial strategy to reduce poverty among single-parent families but [...] this strategy alone is not sufficient'. Based on our discussion so far, this argument can be extended to the health of single parents. First, single parents are at particular risk of not being (able to be) in

employment, despite policy efforts to facilitate that. In line with the triple bind, this can be due to not only inadequate implementation or generosity of policies but also single parents' relatively disadvantaged socioeconomic background in relation to labour-market conditions, which are inadequate for single parents to find employment. However, *if many single parents are helped to be employed by active labour-market (H5) and childcare (H6) policies, the consequence could be that the health gap between employed and nonemployed single parents increases*, because the nonemployed are an increasingly negatively selected group (Heggebo, 2015; Heggebo & Dahl, 2015). Second, as shown by Horemans and Marx (Chapter Nine in this book) and Nieuwenhuis and Maldonado (2018), despite being employed many single parents have difficulties reaching the poverty threshold. Hence, we hypothesise (H7) that *further health benefits can be expected from generous cash benefits, social assistance and financial supplements to families with children (such as child benefits)*.

To summarise, the outcomes of four policies are analysed in this chapter. These policies are shown in Table 14.1, and represent the intersection between policies based on cash transfers and in-kind services, policies aimed at families with children and general labour-market policies.

**Table 14.1: Labour-market policy and family policy based on cash transfers and on in-kind services**

	Cash transfers	In-kind services
Labour-market policy	Social assistance	Active labour-market policy
Family policy	Child supplement	Childcare services

## Data and method

Our analyses are based on pooled cross-sectional data from EU-SILC. The sample of individuals was limited to parents aged between 25 and 50, with one or more children still living in the household. We combined the microdata with databases on contextual data (listed below) and we used all the data available in each database. This resulted in a dataset of 762,763 individuals covering a total of 218 country-year observations from 20 European countries between 2004 and 2015.

The dependent variable of main interest is **self-rated health** (SRH), which was measured using a single item: 'How is your health in general?' and ranked on a 5-point scale (4 = 'very good'; 3 = 'good'; 2 = 'fair'; 1 = 'bad'; 0 = 'very bad'). Although it has a clear subjective

dimension (Jylhä, 2009; Maddox & Douglass, 1973; Rosato, 2012), SRH predicts future ratings from physicians better than physician ratings predict SRH (Maddox & Douglass, 1973; Rosato, 2012). SRH is also found to be a powerful predictor of future morbidity and mortality (Burström & Fredlund, 2001; Eriksson et al., 2001; Idler et al., 2000), indicating its validity as not only a predictor of health-related wellbeing but also a proxy for future sickness and disease. Self-reported health was used as an interval-level variable, with higher values representing better health.

**Single parenthood** was measured based on the household-type variable, as defined by Eurostat (see Bradshaw et al., Chapter Fifteen in this book). It is a binary variable. **Employment** is a binary variable based on respondents' self-defined current economic status, differentiating between individuals who are employed (including employees and self-employed, and both full- and part-time workers) and those who are not economically active. **Occupation** was classified based on the European Socioeconomic classification, and was coded using a translation of syntax files provided by Heike Wirth and colleagues from the Leibniz Institute for the Social Sciences. Although the occupational variable in EU-SILC changed from the ISCO-88 to the ISCO-08 definition over time period covered in this study, the syntax files used here provide a consistent approximation of the European Socioeconomic classification. Occupation was coded in ten categories (listed in Table 14.2). Finally, being **at risk of poverty** (AROP) was defined as living in a household with an equalised disposable income below 60% of the median equalised national household income. This is the poverty threshold commonly used in evaluations by the European Commission. In addition to these variables of key interest, several microlevel variables were used as controls, including having a **young child** (under five) in the household, the **number of children** (under 18) in the household and the respondent's **gender, age** and **level of education** (in six categories listed in Table 14.2).

Descriptive statistics of the microdata, both for the full sample and separately for single parents and coupled parents, are shown in Table 14.2. These show that compared to those in coupled-parent households, individuals in single-parent households are somewhat less likely to be employed, to be in professional occupations, to have a tertiary education and to have a young child in the household. Single parents are more likely to be female and at risk of poverty. On average, single parents are (slightly) older and have fewer children and lower health scores.

**Table 14.2: Summary statistics, for full sample (n = 762,763), coupled parents only (n = 700,011) and single-parents only (n = 62,752)**

	Full sample	Coupled parents	Single parents
Self-reported health	3.049	3.062	2.897
Employed	0.779	0.784	0.726
At risk of poverty (AROP)	0.153	0.140	0.302
Young child in household	0.397	0.415	0.201
Age	39.715	39.653	40.407
Number of children	1.706	1.728	1.462
Female	0.563	0.533	0.894
<b>Occupation</b>			
Inactive (ref)	0.221	0.216	0.274
Routine	0.097	0.097	0.092
Lower technical	0.065	0.069	0.028
Lower sales and service	0.078	0.075	0.115
Lower supervisors and technicians	0.053	0.054	0.039
Small employers and self-employed (agriculture)	0.014	0.014	0.004
Small employers and self-employed (nonagriculture)	0.061	0.063	0.040
Intermediate occupations	0.150	0.146	0.192
Lower managers/professionals, higher supervisory/technicians	0.129	0.130	0.121
Large employers, higher managers/professionals	0.132	0.135	0.096
<b>Education</b>			
Preprimary (ref)	0.003	0.003	0.003
Primary	0.062	0.062	0.055
Lower secondary	0.157	0.156	0.162
(Upper) secondary	0.425	0.422	0.454
Postsecondary nontertiary	0.037	0.036	0.045
Tertiary	0.317	0.321	0.281

Four policy indicators were used, all based on time-varying country-level measurements. The indicator for **ALMPs** was based on the OECD Social Expenditure database. To separate the degree to which the labour-market policies were designed to be ‘active’ from demand for labour-market policies driving up expenditure (for example, in times of high unemployment), our measure was defined as the percentage of all government spending on labour-market policies assigned to active policies and programmes. **Childcare** was measured as the proportion of children age 0 to 2 who are enrolled in formal childcare and preschool. This variable was obtained from the OECD Family Database. Two indicators of monetary transfer policies were obtained from the Social Assistance and Minimum Income Protection



Dataset (SAMIP), provided as part of the Social Policy Indicator Database (SPIN). This database is based on the type-case methodology, and provides monetary amounts received from a **child supplement** (such as child benefits) and **social assistance** by a single-parent type-case. In the calculation of the amounts received, the single parent was assumed to have two children aged 7 and 14, and to be involuntary unemployed without access to contributory social benefits. These monetary measures were made comparable across countries by dividing the nominal amounts by the national median disposable household income.

As some policy variables were not measured annually and some had missing values, the policy variables were both interpolated and extrapolated. When valid observations were available for both earlier and later years on a given variable (within the same country), values for the missing intermediary years were imputed by linear interpolation. Missing values at the beginning or the end of the time series were imputed by copying the most recent observation forward, or the earliest observation backwards. All policy variables were standardised to have a mean of 0 and a standard deviation of 1.

## Analytical strategy

We will first present visual evidence on the association between employment, single parenthood and health across countries. This will initially be done on the full sample, as presented in Table 14.2. These data will then also be used to analyse the interplay between single parenthood, health, employment and occupation, using regression models to include various controls. Then (for reasons specified shortly) a subsample of only single parents will be used to analyse the impact of social policies on single parents' employment and the self-reported health of single parents. All regression analyses will be performed using multilevel models, in which individuals are nested within country years. In addition, all models include country-fixed effects to account for unobserved, time-invariant heterogeneity between countries.

## Results

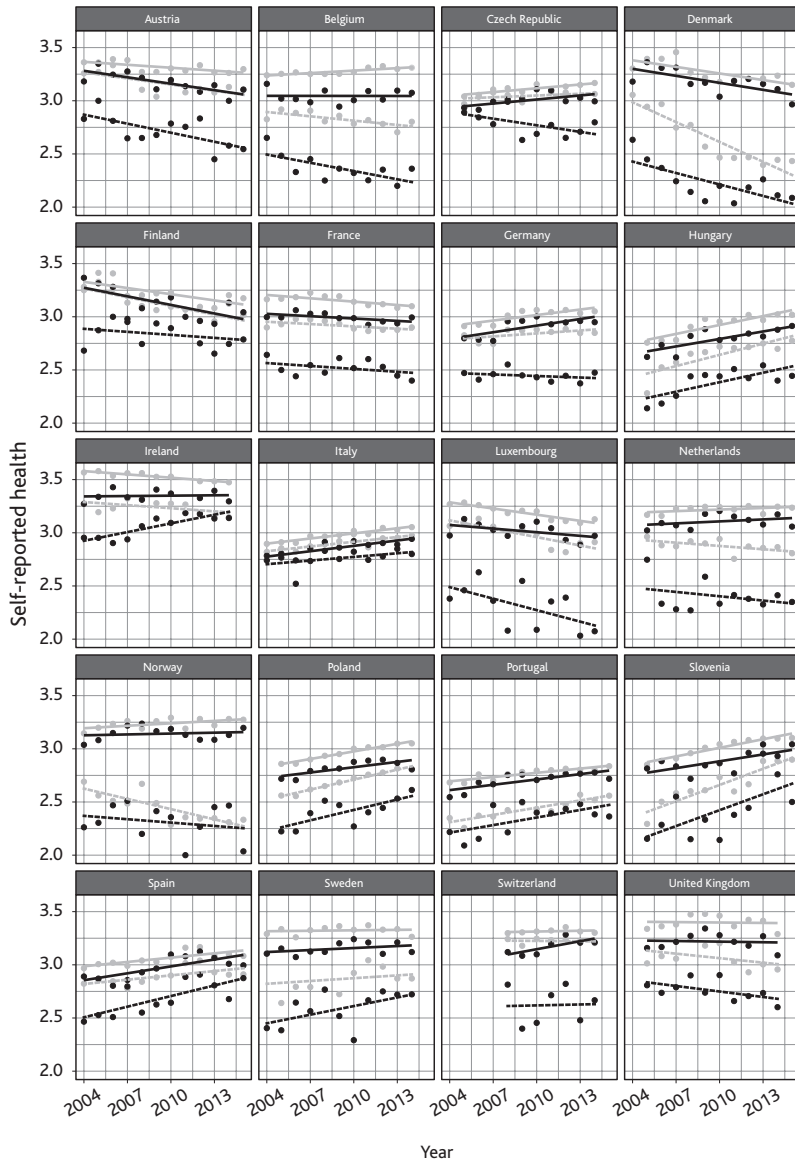
Figure 14.1 presents descriptive evidence on the association between single parenthood, employment and self-reported health. The general pattern across all countries is that single parents (black lines) experience worse health than coupled parents (grey lines), and that the employed (solid lines) experience better health than the nonemployed (dashed

lines). Generally, among the employed the difference in health between single and coupled parents is small, and the health gap between the employed and nonemployed seems to be larger among single parents than among coupled parents. There is, however, variation across countries with respect to this general pattern. For instance, nonemployed single parents seem to be comparatively worst off in Austria, Belgium, Germany and France – countries often characterised as supporting the traditional breadwinner model (Korpi, 2000). On the other hand, in dual-earner societies such as Denmark, Norway and Sweden, all nonemployed individuals are in relatively poor health irrespective of whether they live in a single-parent or coupled-parent household.

In Table 14.3, the results of multilevel models are presented, regressing individuals' self-reported health on microlevel indicators. Model 1 shows that the self-reported health of single parents is below that of coupled parents, with a difference of  $-0.21$ . Model 2 adds the interaction between single parenthood and employment, as well as various controls. The analysis indicates that those who have a young child in the household, but also those with more children, experience better health. It also shows that men and those who are younger experience slightly better health, and furthermore that education is positively associated with health. The interaction between single parenthood and employment shows, in line with what we saw in Figure 14.1, that employment is positively associated with the health of all parents: an effect size  $0.288$  was estimated for coupled parents and  $0.288 + 0.168 = 0.456$  for single parents. In other words, the health penalty associated with single parenthood is smaller among the employed than among the nonemployed, which corresponds to what was observed in Figure 14.1. After being at risk of poverty is accounted for, in Model 3, the estimates of employment are somewhat smaller for both coupled parents ( $0.270$ ) and for single parents ( $0.270 + 0.148 = 0.418$ ). This means that being at risk of poverty, which itself is associated with poorer health (H1), explains part of the association between employment and health. In other words, those who are employed experience better health, in part because they are less likely to be at risk of poverty. Yet, it should be noted that even after accounting for poverty risks, employment remains positively associated with health (H2). By differentiating the employment variable to nine occupational categories, the results in Model 4 show that it matters in which occupation one is employed. Employees in all occupational categories experience better health than the nonemployed (reference category), and this holds for both coupled and single parents (indicated

Figure 14.1: Trends in the health penalty of single parents

Solid grey = coupled parents, employed  
 Solid black = single parents, employed  
 Dashed grey = coupled parents, not employed  
 Dashed black = single parents, not employed



**Table 14.3: Self-reported health regressed on single parenthood, employment, occupation and poverty**

	<b>Model 1</b>
Single parent	-0.205*** (0.006)
Employed	
<b>Occupation</b>	
Large employers, higher managers/professionals	
Lower managers/professionals, higher supervisory/technicians	
Intermediate occupations	
Small employers and self-employed (nonagriculture)	
Small employers and self-employed (agriculture)	
Lower supervisors and technicians	
Lower sales and service	
Lower technical	
Routine	
Male	
Age	
<b>Education</b>	
Primary	
Lower secondary	
(Upper) secondary	
Postsecondary nontertiary	
Tertiary	
Number of children	
Young child in household	
AROP	
<b>Interactions single parent</b>	
× Employed	
× Large employers, higher managers/professionals	
× Lower managers/professionals, higher supervisory/technicians	
× Intermediate occupations	
× Small employers and self-employed (nonagriculture)	
× Small employers and self-employed (agriculture)	
× Lower supervisors and technicians	
× Lower sales and service	
× Lower technical	
× Routine	
Constant	3.278*** (0.020)
Observations	762,763
Log likelihood	-843,244.600

Notes: \*p<0.1, \*\*p<0.05, \*\*\*p<0.01; country-fixed effects included in all models (not shown).

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Model 2		Model 3		Model 4	
-0.258***	(0.007)	-0.223***	(0.007)	-0.269***	(0.007)
0.288***	(0.012)	0.270***	(0.012)		
				0.267***	(0.003)
				0.230***	(0.003)
				0.207***	(0.003)
				0.193***	(0.004)
				0.133***	(0.007)
				0.184***	(0.004)
				0.160***	(0.004)
				0.149***	(0.004)
				0.124***	(0.003)
0.007***	(0.002)	0.009***	(0.002)	0.005***	(0.002)
-0.016***	(0.0002)	-0.017***	(0.0002)	-0.017***	(0.000)
0.038**	(0.017)	0.034**	(0.017)	0.049***	(0.017)
0.127***	(0.016)	0.112***	(0.016)	0.121***	(0.016)
0.234***	(0.016)	0.211***	(0.016)	0.208***	(0.016)
0.290***	(0.017)	0.261***	(0.017)	0.242***	(0.017)
0.371***	(0.016)	0.341***	(0.016)	0.300***	(0.016)
0.021***	(0.001)	0.025***	(0.001)	0.024***	(0.001)
0.038***	(0.002)	0.037***	(0.002)	0.034***	(0.002)
		-0.108***	(0.006)	-0.120***	(0.006)
0.168***	(0.007)	0.148***	(0.007)		
				0.220***	(0.011)
				0.204***	(0.010)
				0.201***	(0.009)
				0.219***	(0.016)
				0.320***	(0.048)
				0.190***	(0.016)
				0.200***	(0.011)
				0.141***	(0.018)
				0.136***	(0.011)
3.362***	(0.029)	3.398***	(0.029)	3.523***	(0.026)
762,763		762,763		762,763	
-818,976.100		-818,028.200		-818,550.800	

by the interaction terms). Yet, as was expected, higher-status occupations such as professionals and higher supervisory/technicians are associated with larger health benefits compared to, for instance, lower-technical occupations or routine labour.

To assess the impact of policies, we limit the sample to single parents. This avoids the need for three-way interactions, while still allowing us to examine how different policies affect the self-reported health of both employed and nonemployed single parents. First, we test how policies are associated with the employment of single parents. This is done using a single model in Table 14.4, presenting the results of a linear probability model estimating the likelihood of employment. Informed by the life-course perspective suggested by Zagel and Hübgen (Chapter Eight in this book), we interact the effect of childcare with the presence of a young child in the household. The controls show that, in line with previous findings, single parents are more likely to be employed when they are male, older, highly educated and have fewer children. The policy estimates show that single parents are more likely to be employed in

**Table 14.4: Single parents' employment regressed on household characteristics, resources and social policy (linear probability model)**

	Model 1	
AROP	-0.308***	(0.004)
Male	0.074***	(0.005)
Age	0.003***	(0.000)
Education		
Primary	0.094***	(0.029)
Lower secondary	0.161***	(0.029)
(Upper) secondary	0.272***	(0.029)
Postsecondary nontertiary	0.295***	(0.029)
Tertiary	0.345***	(0.029)
Number of children	-0.026***	(0.002)
Young child in household	-0.120***	(0.004)
Active labour-market policy	0.032***	(0.007)
Childcare	-0.014	(0.013)
Child supplement	-0.019	(0.025)
Social assistance	0.007	(0.012)
Childcare × young child in household	0.057***	(0.004)
Constant	0.499***	(0.071)
Observations	62,752	
Log likelihood	-30,054.370	

Notes: \*p<0.1, \*\*p<0.05, \*\*\*p<0.01; country-fixed effects included but not shown.

countries with more extensive ALMPs (H3) and that single parents with a young child are more likely to be employed when childcare is available (H4). Social assistance and financial supplements for children were not found to be (significantly) associated with the employment of single parents.

Table 14.5 examines the association between policies and the self-reported health of single parents. To be able to differentiate the policy outcomes between those who are employed and those who are not (and to avoid three-way interactions), we again limited the analyses presented in Table 14.5 to single parents only. All models in Table 14.5 include the same microlevel controls and country-fixed effects as in Tables 14.3 and 14.4 (not shown). Model 1 shows the main effects of four policy variables. The two employment policies, ALMPs and childcare enrolment, are not associated with the health of single parents on average. The two transfer-based policies, child supplements and social assistance, are found to be positively associated with single parents' health. The next models examine how variation of these policies within countries over time is associated with the health of the employed and the nonemployed differently. Model 2 shows that the health benefit associated with being employed (0.424) is larger in association with an increase in ALMPs in a country (interaction term of 0.067). Yet, the results also indicate that the nonemployed experience poorer health when ALMPs are more generous (H5). Model 3 shows a similar finding for childcare (H6). Thus, these findings indicate that the health gap between employed and nonemployed single parents increases in societies that facilitate employment via ALMPs and childcare. Although we saw in Table 14.4 that the nonemployed group is smaller in societies that facilitate employment, it is important to note that our results indicate that in association with these labour-market policies, the group of nonemployed single parents becomes more negatively selected in terms of their health. Turning to the transfer-based policies, it becomes clear that the health of nonemployed single parents is positively associated with financial supplements for children (Model 4) and social assistance (Model 5). As the interaction term between these policies and employment is insignificant, this indicates both employed and nonemployed single parents benefit equally, in terms of their health, by the security provided via financial supplements for children and social assistance (H7). Finally, in Model 6, all policy interactions were estimated simultaneously. Although it should be noted that, possibly due to the large number of interactions, the fit of this model actually deteriorated, the model is still indicative of the findings of the previous

Table 14.5: Self-reported health of single parents regressed on the interaction between employment and social policies

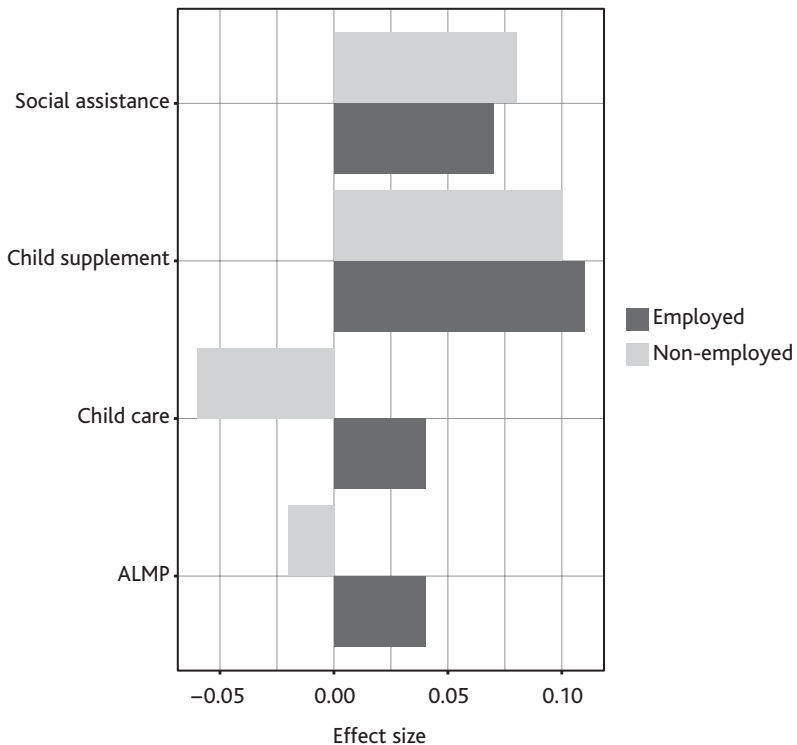
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Employed	0.428*** (0.016)	0.423*** (0.016)	0.413*** (0.014)	0.429*** (0.016)	0.429*** (0.016)	0.406*** (0.011)
AROP	-0.059*** (0.009)	-0.060*** (0.009)	-0.061*** (0.009)	-0.060*** (0.009)	-0.060*** (0.009)	-0.064*** (0.009)
Active labour-market policy	-0.010 (0.010)	-0.060*** (0.015)	-0.011 (0.010)	-0.010 (0.010)	-0.010 (0.010)	-0.024** (0.011)
Childcare	0.009 (0.013)	0.009 (0.013)	-0.071*** (0.016)	0.009 (0.013)	0.009 (0.013)	-0.063*** (0.015)
Child supplement	0.085** (0.035)	0.085** (0.035)	0.085** (0.035)	0.096*** (0.037)	0.086** (0.035)	0.102*** (0.037)
Social assistance	0.056*** (0.018)	0.057*** (0.018)	0.054*** (0.018)	0.056*** (0.018)	0.063*** (0.020)	0.084*** (0.021)
<b>Interactions: employed</b>						
x Active labour-market policy		0.067*** (0.015)				0.059*** (0.011)
x Childcare			0.107*** (0.013)			0.104*** (0.011)
x Child supplement				-0.014 (0.015)		0.009 (0.013)
x Social assistance					-0.009 (0.012)	-0.013 (0.011)
Constant	3.147*** (0.072)	3.146*** (0.072)	3.168*** (0.072)	3.147*** (0.072)	3.147*** (0.072)	3.134*** (0.071)
Observations	62,752	62,752	62,752	62,752	62,752	62,752
Log likelihood	-75,701.360	-75,694.940	-75,672.990	-75,704.190	-75,704.560	-75,715.470

Notes: \*p<0.1, \*\*p<0.05, \*\*\*p<0.01; controls for age, gender, number of children, young child in household, education, AROP and country-fixed effects included but estimates not shown.



models holding up when the policy interactions are controlled for each other. Figure 14.2 shows a graphic representation of the estimates in Model 6. While in societies with generous ALMPs and childcare services there seems to be some form of selection into or out of employment related to health, the parameters indicate that the health benefit among employed single parents is stronger than the impact of negative health selection among the nonemployed. These policies not only benefit the health of single parents by increasing their employment but also are positively associated with health among those who are employed.

**Figure 14.2: Impact of social policies on self-reported health of single parents, by employment**



Note: Bars represent impact of 1 standard deviation of change in policies

## Conclusion

This chapter has confirmed the significant health gradient associated with single parenthood that has repeatedly been observed in previous

research. This social determinant of health warrants an explanation and, from a normative point of view, an ‘interventionist’ approach appears to be motivated. This chapter should be seen as an attempt to make a contribution by advancing state-of-the-art policy (intervention) analysis by applying a programme-specific approach in which specific policies are related to health of the relevant target group (cf. Palme, 2006) – in this case, single parents.

For future research, there are options for improvement. Due to selection problems, when we have only cross-sectional data on the individual level there are always uncertainties regarding interpreting correlations as causation. However, our macro-level tests have been tough in terms of controlling of constant country-specific factors, and at the country level the fixed-effects design is a commonly applied design that is regarded to be well suited to examining policy outcomes. Moreover, the findings are very much in line with studies that had the opportunity to apply better strategies when it comes to identifying causality.

Starting from the previously observed correlations between employment, poverty and single parents’ health, a set of hypotheses generated from a discussion of theoretical policy discourses and current research was tested by analysing cross-sectional data for 20 European countries from 2004 to 2015. The results gave support to the hypothesis (H1) that higher poverty risks contribute to the health penalty of adults living in single-parent households compared to coupled-parent households. The positive effect hypothesised (H2) from employment on top of income poverty reduction was also supported. The analysis further supported the hypothesis (H3) that ALMPs facilitate single parents’ employment and through this reduce their health penalty. The hypothesis (H4) that public childcare generates further health benefits to single parents’ employment was also congruent with the results of the analysis. The further health benefits to those outside of the labour market, hypothesised from generous social assistance and financial supplements to families with children, were also confirmed.

Thus, in terms of policies, two pathways to improve the health of single parents (which are by all means complementary) were identified. Stimulating and facilitating employment was associated with direct and indirect implications for health. It is also worth emphasising that, among the employed, health gains associated with increased employment were found to far exceed those of reduced poverty. From a social-investment perspective, these results have important implications by emphasising the importance in promoting both employment and

income equality (Morel et al., 2012, Chapter Fourteen). It appears clear that the strongest positive health gains come from employment as such. As the analysis established a significant correlation between generous ALMPs and childcare services on the one hand and high employment among single parents on the other, there are obvious opportunities for policies to reduce the health penalties of single parenthood by facilitating their employment. These correlations are also stronger than the ones with poverty, even if the cash benefits in the form of social assistance and child supplements continue to be of significant importance. Interestingly enough, this applies to both the employed and the nonemployed (H7). The hypotheses that active labour-market (H5) and childcare (H6) policies would increase the gap in health between the employed and nonemployed were supported by the results. The negative selection effects of single parents into the nonemployed are also associated with other social policy implications: we should protect the nonemployed with cash benefits if we want to improve their health.

As employment in all kinds of occupations was associated with positive health benefits for single parents, although some occupations more so than others, for future research it still appears warranted to further explore the implications of quality of jobs (see Esser and Olsen, Chapter Thirteen in this book). The quality of jobs should not be confused with the qualifications of individuals but should rather be seen as a contextual variable that could potentially be influenced by policy ‘interventions’ associated with prevailing labour-market/production regimes in individual countries.

The analysis pursued in this chapter also resonates well with a gendered policy perspective. The potential welfare gains and losses of women’s agency in terms of both employment and household formation are at the heart of the gendered turn in comparative welfare-state research (for example, Korpi, 2000; Orloff, 1993), and illustrate the positive potential of well-designed policies. At the same time, there appears to be a lot of room for improving the programme-specific approach and including a more comprehensive analysis of various kinds of (gendered) policy interventions, including not only cash benefits and benefits in-kind but also tax expenditures.

## Note

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