The influence of gender equality policies on gender inequalities in health in Europe

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ABSTRACT

Few studies have addressed the effect of gender policies on women's health and gender inequalities in health. This study aims to analyse the relationship between the orientation of public gender equality policies and gender inequalities in health in European countries, and whether this relationship is mediated by gender equality at country level or by other individual social determinants of health.

A multilevel cross-sectional study was performed using individual-level data extracted from the European Social Survey 2010. The study sample consisted of 23,782 men and 28,655 women from 26 European countries. The dependent variable was self-perceived health. Individual independent variables were gender, age, immigrant status, educational level, partner status and employment status. The main contextual independent variable was a modification of Korpi's typology of family policy models (Dual-earner, Traditional-Central, Traditional-Southern, Market-oriented and Contradictory). Other contextual variables were the Gender Empowerment Measure (GEM), to measure country-level gender equality, and the Gross Domestic Product (GDP). For each country and country typology the prevalence of fair/poor health by gender was calculated and prevalence ratios (PR, women compared to men) and 95% confidence intervals (CI) were computed. Multilevel robust Poisson regression models were fitted.

Women had poorer self-perceived health than men in countries with traditional family policies (PR=1.13, 95%CI: 1.07-1.21 in Traditional-Central and PR=1.27, 95%CI: 1.19-1.35 in Traditional-Southern) and in Contradictory countries (PR=1.08, 95%CI: 1.05-1.11). In multilevel models, only gender inequalities in Traditional-Southern countries were significantly higher than those in Dual-earner countries.

Gender inequalities in self-perceived health were higher, women reporting worse self-perceived health than men, in countries with family policies that were less oriented to gender equality (especially in the Traditional-Southern country-group). This was partially explained by gender inequalities in the individual social determinants of health but not by GEM or GDP.

Key words: gender policies, gender equality, self-perceived health, Europe

INTRODUCTION

Gender inequalities are differences between men and women that systematically empower one group (men) to the detriment of the other (women). In terms of health, it is well known that in industrialized countries women live longer than men, but they often do it in worse health (Annandale & Hunt, 2000; Espelt, et al., 2010). Gender inequalities in health arise because of inequalities in power, status and financial resources (Arber & Khlat, 2002) as well as of the sexual division of work (Malmusi, et al., 2012).

Gender inequalities in health are for the most part socially produced, and as such they can be ameliorated through changes in the gender order (Annandale & Hunt, 2000). Gender equality policies refer to those policies promoting equality between men and women, including family policies (which seek to increase family wellbeing and promote reconciliation between paid work and family), but also others such as policies promoting equal opportunities in the labour market or equal political representation (Borrell, et al., 2014). These policies impact gender inequalities in health through their effect on social determinants of health, such as the distribution of power, income, paid and unpaid work, and more proximal pathways such as discrimination, violence, financial hardship or time pressure. Consequently, gender-equality policies at the country level are assumed to affect gender inequalities. However, few studies have investigated the effect of the orientation of gender policies on women's health or on gender inequalities in health (Borrell, et al., 2014).

A gender policy regime is said to entail a logic based on the rules and norms about gender relations that influences the construction of policies (Sainsbury, 1999). The majority of gender policy typologies proposed so far have been based upon criticisms to Esping-Andersen's (Esping-Andersen, 1990) "gender blind" classification of welfare states (Sainsbury, 1999). Korpi, et al. (2013) have classified countries in terms of dimensions of their family policies that affect the situation of women with respect to paid and unpaid work. These family policy models are therefore based on the extent

of sexual division of work they are promoting and constitute a summary or proxy measure for the configuration of gender equality policies in a given country or group of countries. Some policy models are supportive of the traditional family model, with men as breadwinners and women as caregivers, resulting in more public support to the care-giving role of families, and a bigger or smaller role for the market in providing care. Other policy models are more supportive of the dual-earner model, which relies to a great extent on the provision of public services for care, in turn, making women more independent from their family. This model is mainly represented by the Nordic countries, which are usually better-off in terms of gender equity than the others. A recent review has partially supported the thesis that in the Nordic countries the socioeconomic position of women is better and gender inequalities in health are smaller, although the need for further studies was highlighted (Borrell, et al., 2014).

In recent decades, there has also been an interest in measuring gender equality at country level and several indices summarizing the complexity of different gender equality indicators have been developed. Examples of these are the Gender Inequality Index -http://hdr.undp.org/en/statistics/gii/-, the Gender-related Development Index and the Gender Empowerment Measure -http://hdr.undp.org/en/-, the Gender Equality Index -http://eige.europa.eu/content/gender-equality-index- or the Gender Gap Index -http://www.weforum.org/issues/global-gender-gap-). Most of these indices include health-related indicators, so correlating them with inequalities in health could be redundant. An index that does not contain any health indicator is the Gender Empowerment Measure (GEM) (UNDP, 2009), which is a measure of women's agency based on their participation and decision-making power in the political and economic spheres and power over economic resources.

Recently, some studies have looked at the effect of gender equality at the country level on gender inequalities in health (Dahlin & Härkönen, 2013; Van de Velde, et al., 2013; Van Tuyckom, et al., 2013; Wells, et al., 2012) and one has considered the effect of the orientation of gender policies on gender gaps in mortality (Backhans, et al., 2012). As in the study by Backhans et al., we take into account both a policy typology and a gender equality indicator, although in the present study we focus on self-

perceived health, which is an indicator generally showing women to be disadvantaged compared to men. Moreover, the present study not only considers a wider range of European countries, including some of Eastern Europe, but also the potential influence of individual-level social determinants of health (both as mediators and effect modifiers). Thus, the aim of this study is to generate evidence on the relationship between the orientation of public gender equality policies and gender inequalities in health in European countries, and to determine whether this relationship is mediated by gender equality at country level or by other individual social determinants of health. Our hypothesis is that countries with more equitable gender policies will achieve more equality in health, because of the higher gender equality at both the country level and the level of individual social determinants of health such as educational level, employment status or income.

METHODS

Design, study population and information sources

A multilevel cross-sectional study was performed, using individual-level data on health, gender and other social determinants of health, and country-level data on family policy models and GEM as the indicator of gender equality. Individual data was obtained from the 5th round of the European Social Survey (2010). This is an academically driven cross-national survey that uses representative samples of all persons aged 15 and over residing in private households in European countries (http://www.europeansocialsurvey.org). In this study we used data from 26 countries (Belgium, Bulgaria, Switzerland, Cyprus, Czech Republic, Germany, Denmark, Estonia, Spain, Finland, France, United Kingdom, Greece, Croatia, Hungary, Ireland, Lithuania, Netherlands, Norway, Poland, Portugal, Russian Federation, Sweden, Slovenia, Slovakia and Ukraine). Individual data was available for an additional country (Israel), but which did not enter the study as none of the classifications of family policy regimes included it. Response rates in the countries ranged from 30.5% in Germany to 81.4% in Bulgaria. Finally, the study sample consisted of 23,782 men and 28,655 women.

Variables

Our dependent variable was self-perceived health measured through the question: "How is your health in general? Would you say it is very good, good, fair, bad, or, very bad?". The answer was dichotomised into good (very good, good) and poor (fair, bad, very bad) (Manor, et al., 2000).

Our main independent variable was gender measured as man or woman. Other individual social determinants of health used were: A) age, used both as a continuous variable for standardisation and adjustment and as a categorical variable for stratification (15-19, 20-34, 35-49, 50-64, 65+). B) Being an immigrant from a country other than an advanced economy using the definition of the International Monetary Fund (2013). Although this variable may not be an important determinant of gender inequalities in health it was important for us to consider the intersections between different axes of inequality. C) Educational level, measured by the International Standard Classification of Education (ISCED), which we merged into 'up to lower secondary education' (ISCED 0,1 or 2), 'upper secondary and post-secondary non-tertiary education' (ISCED 3, 4 or 5) and 'tertiary education' (ISCED 6, 7 or 8). D) Partner status, classified as: never married; separated, divorced or widowed; cohabiting but not married; or married. E) Employment status: for those on paid work occupations were classified as professional, services and manual work, using the International Classification of Occupations ISCO-88. Other statuses out of employment were: student, unemployed, disabled or retired, doing housework or looking after children or other persons (named "housework" in the tables), and others.

Our main independent variable at the contextual level, used as a proxy for typologies of countries with different gender equality policies, was the typology of family policy models initially developed by Korpi (2000), which has been revised recently (Korpi 2010; Korpi, et al., 2013). As stated above, these family policy typologies are multidimensional and are embedded in a wider social context, and they are useful to assess the impact of different policies on the situation of men and women in employment and also other economic outcomes. Moreover, Korpi's framework

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encompasses many more European countries than other existing classifications. Korpi classified countries in 3 groups (Box 1). The first group consists of countries with Dual-earner support, which are characterised by policy institutions that encourage women's continuous labour force participation and attempt to redistribute caring work within the family (Nordic countries). The second group is countries with Traditional family policies, presuming that women have the primary responsibility for care at home. In these countries women enter paid work primarily as secondary earners, while care within families is subsidized by the state (continental Europe). A third group is Market-oriented countries, characterized by a strong breadwinner model in which the market is the principal institution governing individuals' and families' access to resources. Korpi's three main categories were subsequently expanded through a fourth and a fifth model. The fourth model, which simultaneously attempts to both preserve highly gendered divisions of labour and support for the dual-earner family, has been labeled "Contradictory" and is most clearly represented by Eastern European or Transition countries (Boye, 2011; Ferrarini & Sjoberg, 2010). Finally, because the set of countries in continental Europe is very heterogeneous in terms of gender policies, we have created a new category with all Southern European countries (Traditional-Southern) separating them from other continental countries which are named Traditional-Central. The creation of such an additional category for family policies had already been suggested in earlier research (Thévenon, 2011).

Additional independent variables at the contextual level are the GEM of 2009, which attempts to measure the extent of gender inequality across countries based on the proportion of seats held by women in national parliaments, percentage of women in economic decision making positions and female share of income (UNDP, 2009). The Gross Domestic Product (GDP) of 2010 (World Bank) was used as a confounding variable as gender equality scores usually tend to be higher in more economically advanced countries.

Analyses

Weights derived from the sample design were used in all calculations. Several of the sample designs used by countries participating in the European Social Survey were not completely random. The design weight corrects for these slightly different probabilities of selection, thereby making the sample more representative of a 'true' population of individuals aged 15 and over in each country.

Age-standardised prevalence (using 10-year age groups and standardised by the direct method (Rué & Borrell, 1993) being the total sample weighted by country the reference population) of poor self-perceived health was calculated by gender for each country and typology. Prevalence ratios (PR) of poor self-perceived health in women compared to men were calculated by fitting Poisson regression models with robust variance (Zou, 2004) adjusted by age in each country and in each country typology (in this case also adjusting by country). In each country typology, PR of poor self-perceived health in women compared to men were also calculated stratifying by each social determinant of health considered. Finally, to determine if gender inequalities varied according to country typology, multilevel (Diez-Roux, 2000) robust Poisson regression models were fitted. A model with random intercept and gender slope, including the typology as a predictor of the gender slope was conducted to see if gender inequalities varied by country typology group (model 1). This model was subsequently augmented by adding individual variables (model 2), then GEM (model 3) and then GDP (model 4) as predictors of the gender slope to determine if these variables mediated the effect of the country typology on gender inequalities in self-perceived health.

All analyses were performed using Stata 11.2 for Windows, except the multilevel analyses which were performed using HLM 6.02.

RESULTS

The description of the study sample by country typology can be found in Table 1. Several patterns were present in all country typologies: women had poorer health than men; the percentage of women with lower educational level was higher than among

men; women in the sample were more often separated, divorced or widowed than men; women were more often employed in the services sector or in housework than men while men were more often in manual jobs.

Prevalence of poor health ranged from 16.6% for men in Greece to 68.4% for women in the Russian Federation (Table 2). Statistically significant gender inequalities in health were not observed in Dual-earner or Market-oriented countries, whereas women had a higher probability of having poor health than men in Traditional-Central countries (PR=1.13, 95%CI: 1.07-1.21), Traditional-Southern countries (PR=1.27, 95%CI: 1.19-1.35) and Contradictory countries (PR=1.08, 95%CI: 1.05-1.11). There were some outliers such as Sweden among the Dual-earner countries, with a PR of 1.45, the Netherlands among the Traditional-Central countries, with a PR of 1.31, and Bulgaria in the group of Contradictory countries with a PR of 1.33.

Gender inequalities varied slightly when stratifying by different individual-level social determinants of health (Table 3). In Traditional-Southern countries they were present in all age groups over 35 years with PR values of around 1.30, while in Contradictory countries they were present in the 20 to 64 age range and especially notable in the 20 to 34 age group. In Traditional-Central and Market-oriented countries, though modest, inequalities were significant only in the oldest group. In countries of both the Traditional typologies gender inequalities seemed more marked among those with lower education (PR=1.19 in Traditional-Central and 1.26 in Traditional-Southern). In Dual-earner countries inequalities were found among students (PR=1.51, 95%CI: 1.07-2.15), also in these typologies inequalities seemed more notable among people not married but cohabiting (PR=1.33 in Traditional-Central and 1.64 in Traditional-Southern countries). Except for Market-oriented countries, inequalities were higher for those working in services, but were only significant for Traditional-Central and Contradictory countries. Inequalities were especially marked among those in manual occupations in Traditional-Southern countries (PR=1.43, 95%CI: 1.15-1.78) and Market-oriented countries where they were almost statistically significant (PR=1.43, 95%CI: 0.98-2.10). In Contradictory countries gender inequalities were found for the three categories of workers.

Figure 1 presents the results of the multilevel models. Before adjustment there were gender inequalities in Traditional-Central (PR=1.12), Traditional-Southern (PR=1.27) and Contradictory countries (PR=1.21). Only inequalities in Traditional-Southern countries were significantly higher than those in Dual-earner countries (reference category). When adjusting for GEM or for GEM and GDP, estimates did not change much but gender inequalities in Traditional-Southern countries ceased to be statistically different from those observed in Dual-earner countries. After additional adjustment for individual variables inequalities diminished slightly in Traditional-Southern countries (PR from 1.26 to 1.20) and Contradictory countries (PR from 1.16 to 1.09), meaning that individual variables explained about 23% and 44% of the inequalities observed in these countries, respectively.

DISCUSSION

This study has found gender inequalities in self-perceived health in countries with Traditional family policies and in countries with Contradictory family policies. However, only gender inequalities in Traditional-Southern countries were significantly different from those in Dual-earner countries. The individual social determinants of health considered seem to play a role, though modest, in explaining these higher inequalities.

Gender inequalities in health by country typology

In this study, gender inequalities in health were not found in countries with Dual-earner or Market-oriented policies. A previous systematic review has shown that Dual-earner countries (Nordic) seem best at promoting women's health (Borrell, et al., 2014). Welfare state policies may contribute to gender differences in general health being smaller, or non-existent. In these countries there is a strong involvement of the state (mainly through services) in the care of children, the elderly and the helpless (Sainsbury, 1999), while fathers are stimulated to take a more active part in caring for their minor children, which can be assumed to relieve women from care work and

strengthen their occupational commitment (Korpi, et al., 2013). Compared to the Dual-earner countries, countries with Market-oriented policies are at the opposite end of the public-support spectrum (Thévenon, 2011). However we did not find gender inequalities in health in these countries, coinciding with the finding by Bambra et al. (Bambra, et al., 2009) of reversed gender inequalities in self-rated health in the UK. The authors of that study also highlighted how challenging these results were for welfare state regime theory. We must point out that in our study, in Market-oriented countries gender inequalities were large and almost statistically significant among manual workers, possibly because they are not able to afford the services for families offered by the market. In Traditional-Central and Contradictory countries women tend to have a higher prevalence of adverse general health, compared to men. Contradictory countries have a high female participation in the labour market, inherited from the communist era, and still have much more public services for dependent people than (some) Traditional countries. It should be noted however, that they are very conservative in the gender balance of power at the family level, and thus combine a high female participation in paid work with a traditional division of housework. Traditional-Central countries have high levels of traditional family support where women are responsible for domestic and family work and enter the labour market mostly as secondary earners. In principle this could reinforce the hypothesis that women's poorer health could be related to their lack of power, status and financial resources.

Finally, Traditional-Southern countries present significantly higher inequalities compared to Dual-earner countries. Traditional-Southern countries are characterized by a strong ''familialism'', with a family/kinship solidarity model based on an asymmetrical gender division of work, low female participation in the labour market, the essential role of women being providing care within kinships, limited provision of care services and low financial family support by the state. Women are entitled to a relatively short paid period of child-related leave and there is less extensive provision of childcare services than other countries, while fathers' specific entitlement to paternity leave has only recently been incorporated and is very limited (Thévenon, 2011). In addition it has been argued that, in the context of the current economic

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crisis, women have been pushed into the labour market, which may add to their greater domestic workload, due to minimal childcare support and men's limited contribution to housework (Artazcoz, et al., 2013). Some of these countries (Spain, Greece and Portugal) also had long periods of fascist governments during the twentieth century with high repression directed at the working class, regressive fiscal policies, underdeveloped welfare states, and a significant role of the Catholic Church that relied on women for the care of family members and actively promoted the traditional family model (Navarro & Shi, 2001). The existing gender inequalities in health in Traditional-Southern countries are consistent with those found in other studies (Bambra, et al., 2009), while studies looking at different health indicators such as depression, have also found that gender differences were greater in Eastern and Southern European Countries and smallest in Nordic countries (Van de Velde, et al., 2010).

We have found certain outlier-countries, in which inequalities were higher than in the rest of their group. This happened for example for the Netherlands. The Dutch welfare state has sometimes been classified as a social-democratic one (Bambra, 2007). However, on the other hand, Dutch women have high shares of relatively precarious part-time work. Another country with high gender inequalities was Sweden, mainly due to the very good health reported by Swedish men. It seems that this country, although one of the most egalitarian in the world, has one of the most strongly gender segregated labour markets (Stenmark, 2010), with women more likely to work in the public sector, in part-time employment and with lower wages. Moreover, it has been unable to significantly alter the uneven distribution of power in the economic sector as opposed to the political sector where a high degree of gender equity has been reached, and unable to fulfill the political goal of shared parental responsibilities (Svensson & Gunnarsson, 2012). Nevertheless, as other Nordic countries may also share some of these features, this finding deserves confirmation and further exploration in more detailed studies.

Individual social determinants as mediators and effect modifiers

Inequalities in Traditional-Southern and Contradictory countries fell slightly when we controlled for individual-level mediators. In Traditional-Southern countries, in fact, inequalities were especially high in older people, in those not married but cohabiting and in manual workers. A previous study found that in manual classes, unmarried but cohabiting women had worse health than married and cohabiting women (Artazcoz, et al., 2011). It could be that cohabitants more frequently have relationships of poorer quality and with greater instability compared to married couples and that marriage quality affects women more than men. In Traditional-Southern countries Catholicism historically had a very important role (Ferrera, 1996), this could be a reason why marriage seems to be more important here than in other typologies.

Regarding gender inequalities by employment status gender inequalities tended to be lower in professional workers than in other occupational categories; a fact that differs from the results of the study by Campos-Serna et al. (2013) which found that gender inequalities in the exposure to work-related psychosocial hazards were present in the majority of welfare state regimes but were more important in mangers/professionals than in clerk/service/shop and manual workers.

Gender health inequalities in manual classes existed in all country typologies except in Dual-Earner and Traditional-Central. Korpi argued that Dual-earner policies appear to be more efficient in terms of getting women without tertiary education into employment (Korpi, et al., 2013). Perhaps in Traditional countries there is a selection process whereby only women in financial strain enter the labour market as manual workers. Another possibility could be that in Traditional-Southern countries a disproportionate number of female manual workers are employed in poorer quality jobs. In Contradictory countries it seems that the sources of gender inequality could differ from those in Traditional countries as inequalities were mostly observed in young women and in the three groups of workers. This could reflect the double burden of family and paid work for women since in these countries although women's engagement in the labour market is high there is a low emphasis on policies enabling women to combine motherhood with paid work (Thévenon, 2011).

There were surprisingly large gender inequalities in general health among students in Dual-earner countries. Some authors have pointed out that the long history of focusing on gender equality in those countries means that younger generations are taking it for granted (Sümer, 2009). Future studies will have to confirm this result. It is also remarkable that in these countries gender inequalities are higher among service workers. The latter difference could well be explained by the different types of service jobs that men and women perform, especially regarding pay, but also career prospects and working environment – with women being in public sector health and caring jobs and men in private sector jobs, primarily in sales.

The role of country level gender equality

In this study the indicator of gender equality did not mediate the effect of the country typology on inequalities. Some studies have found that different measures of gender equality were associated with gender inequalities in certain health outcomes (Van Tuyckom, et al., 2013; Varkey, et al., 2010; Wells, et al., 2012), though others have not (Dahlin & Härkönen, 2013; Grittner, et al., 2012) and some have found that they have an effect only in certain social subgroups (Schaap, et al., 2009; Van de Velde, et al., 2013). As shown in the above-mentioned review, in studies performed in the United States, gender equality at the state level has also been associated with better health outcomes in women and lower gender inequalities in health (Borrell, et al., 2014). In our models, though not significant, the direction of the relationship indicated that higher GEM-levels were related to lower health inequality at the country level (results not shown). However, the GEM did not mediate the effect of policy typology. One possibility is that, as the indicator was significantly correlated with the country typology (results not shown), the typology somehow captured the inequalities better than the index did. Another possibility could be that our indicator, the GEM, is mainly a measure of power or agency, while the pathway through which the typology acts is a different one.

Limitations

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This study has certain limitations. In the first place, to our knowledge, none of the existing gender regime typologies included all the countries that were available in our data. For that reason we opted for using a family policy typology. However, as stated previously, the family policy model can be seen as an indicator of the degree to which country-level policies support women's labour force participation which affects women's self-perception, identity and bargaining position within the family (Backhans, et al., 2011) and promotes gender equality. In addition, it seems there is a certain heterogeneity among the available typologies as to where countries are classified. For example, within the Contradictory type, some authors have asserted that countries such as Slovenia or Estonia are evolving towards a Dual-earner type (Ferrarini & Sjoberg, 2010). In addition, Hungary seems to be an outlier in its group since it provides much more comprehensive support to parents with young children and Slovakia appears to be comparable to most Southern European countries (Thévenon, 2011). We performed a sensitivity analysis without these countries and results hardly changed (results not shown).

Also, it is worth mentioning that we found large between-country inequalities in people's self-perceived health. In fact poor health was highly prevalent in some Southern countries and in most Eastern countries. This result has been reported by earlier comparative studies (Carlson, 1998; Eikemo, et al., 2008). A possible explanation for this finding could be differences in wealth but also country differences in people's perception of poor health (Jurges, 2007). However, although it may have an effect on the actual levels of self-perceived health, we do not expect it to have a big effect on gender inequalities.

Finally, it is necessary to comment that the economic recession that started at the end of 2008 has had differential effects (and differential timing) in many of these countries. Probably, the impact of budget cuts on public gender equality policies has been greater in Southern European countries, but these have mainly been applied since 2010.

CONCLUSIONS

Gender inequalities in self-perceived health were higher in countries with family policies that were less oriented to gender equality, especially those in Southern Europe. This was partially explained by gender inequalities in the individual social determinants of health included in this study but not by the country-level gender equality measure used (GEM).

TABLES AND FIGURES

Box 1. Typologies of countries according to Korpi's family policies model (Korpi et al. 2013; Ferrarini and Sjöberg 2013).

Typology	Countries	Characteristics
Dual-earner		
	Denmark	Public policies enable a transfer of childcare from the family to the public sector and stimulate fathers to take more active part in caring for their minor children.
	Finland	
	Norway	
	Sweden	
Traditional-Central		
	Belgium	These countries have traditional family policies with high support to all families, as for example: child allowances for minor children, part-time day-care services, home care allowances or marriage subsidies.
	Germany	
	France	
	Netherlands	
Traditional-Southern		
	Cyprus	These countries have residual family policies with lack of support to families and rely on unpaid help. Spain, Greece and Portugal have had a long period or right-wing dictatorship.
	Spain	
	Greece	
	Portugal	
Market-oriented		
	Switzerland	Absence of strong action to support households, the market is the principal institution governing individuals' and families' access to resources
	United Kingdom	
	Ireland	
Contradictory		
	Bulgaria	Simultaneously attempts to both preserve a highly gendered division of domestic labour and support the dual-earner family. Consist of former socialist countries where family policies have changed after the transition (before they were more supporting to women's labour force participation).
	Czech Republic	
	Estonia	
	Croatia	
	Hungary	
	Lithuania	
	Poland	
	Russian Federation	
	Slovenia	
	Slovakia	
	Ukraine	

Table 1. Distribution of the study sample in relation to the other individual variables under study for men and women, in each country typology (%).

| | Dual-earner | | Traditional-Central | | Traditional-South | | Market-oriented | | Contradictory | |
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
N	3,243	3,256	4,014	4,278	3,456	4,369	3,018	3,486	9,006	12,017
Self-perceived health										
Good	73.6	71.3	68.5	65.4	72.4	64.2	79.4	77.8	57.4	48.8
Poor	26.4	28.7	31.4	34.5	27.6	35.8	20.5	22.2	42.3	51.0
missing	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.2	0.2
Age										
15-19	7.2	8.5	8.2	6.5	6.6	4.6	7.5	7.9	6.8	7.9
20-34	20.2	19.5	18.7	20.8	22.9	22.0	26.0	21.8	25.9	21.8
35-49	25.1	23.8	25.3	28.6	25.5	26.5	25.4	27.9	24.2	27.9
50-64	26.0	24.7	27.2	25.8	22.1	24.8	22.5	24.4	26.4	24.4
65+	21.5	23.5	20.4	18.3	22.8	21.9	18.4	17.9	16.2	17.9
missing	0.0	0.0	0.2	0.0	0.1	0.2	0.2	0.1	0.5	0.1
Born in a low-income country										
No	95.3	94.8	92.8	92.7	93.5	92.9	89.0	91.9	94.9	94.3
Yes	4.2	4.8	6.9	6.9	6.4	7.1	10.0	7.7	4.6	5.3
missing	0.5	0.4	0.3	0.4	0.1	0.0	1.0	0.4	0.5	0.4
Educational level										
Up to lower secondary	25.4	28.8	27.0	31.1	51.4	54.3	33.1	35.2	21.0	21.9
Upper secondary	50.1	42.9	51.2	48.8	32.8	31.1	48.3	45.6	60.1	54.9
Tertiary	24.3	27.8	21.4	19.8	15.7	14.6	16.6	17.3	18.6	23.0
missing	0.2	0.5	0.4	0.3	0.1	0.0	2.0	1.9	0.3	0.2
Partner status										
Never married	28.2	28.6	26.5	21.1	29.8	21.0	33.4	26.5	28.2	19.3
Separated/divorced/widowed	5.5	12.4	8.0	16.2	6.0	16.9	7.9	15.7	8.7	23.7
Not married cohabiting	17.0	15.6	11.3	12.1	5.4	4.9	9.0	9.6	8.1	8.0
Married	49.1	43.3	54.2	50.5	58.7	57.2	49.6	48.1	54.7	48.6

	Dual-earner		Traditional-Central		Traditional-South		Market-oriented		Contradictory	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
missing	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.3	0.4
Employment status										
Professional paid work	29.5	27.4	27.6	25.8	15.6	11.2	22.1	20.1	17.7	19.2
Services paid work	6.6	16.4	7.5	14.6	10.3	15.6	7.7	16.9	7.0	13.9
Manual paid work	20.1	5.1	19.0	5.8	23.2	9.6	22.1	5.1	26.3	8.1
Student	11.0	13.9	9.9	9.0	8.4	7.6	11.2	10.0	10.6	9.0
Unemployed	5.0	3.6	4.4	4.5	11.2	10.2	10.9	5.6	9.7	6.9
Disabled/retired	25.7	27.9	27.2	21.9	28.7	21.1	22.3	20.4	25.2	31.0
Housework	0.7	4.4	1.7	16.1	0.6	23.4	1.6	20.3	0.9	10.2
Others	0.9	1.1	2.0	1.7	1.3	1.1	1.1	1.2	0.9	0.6
missing	0.5	0.2	0.7	0.6	0.7	0.2	1.0	0.4	1.7	1.1

Table 2. Number of cases, age-standardised prevalence of poor health and prevalence ratio of poor health comparing women with men, in each country and country typology. Gender Empowerment Measure (GEM) by country.
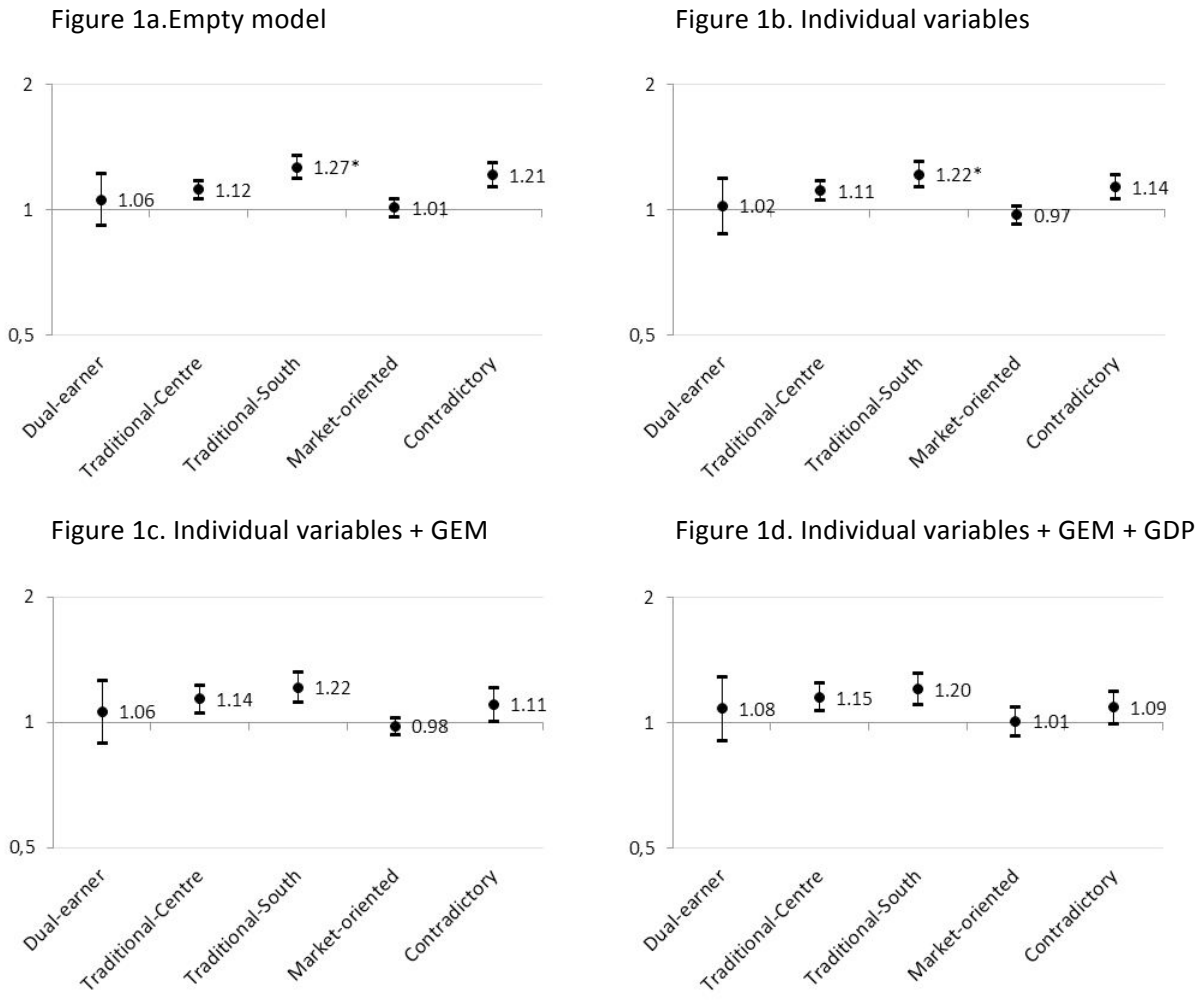
Country typology and country	Men		Women		PR	95% CI	GEM
	N	%	N	%			
Dual-earner							
Denmark	809	24.7	767	22.2	0.89	(0.75-1.05)	0.896
Finland	911	33.1	967	32.3	0.98	(0.87-1.09)	0.902
Norway	805	24.0	743	25.0	1.05	(0.88-1.24)	0.906
Sweden	718	17.9	779	26.3	1.45	(1.20-1.75)	0.909
*Total**	*3.243*	*23.8*	*3.256*	*26.5*	*1.05*	*(0.98-1.14)*	-
Traditional-Central							
Belgium	820	21.8	884	25.3	1.15	(0.98-1.35)	0.874
Germany	1.556	39.2	1.475	42.4	1.08	(0.99-1.18)	0.852
France	802	31.2	926	34.3	1.11	(0.96-1.28)	0.779
Netherlands	836	22.8	993	29.8	1.31	(1.12-1.53)	0.882
*Total**	*4.014*	*33.8*	*4.278*	*37.0*	*1.13*	*(1.07-1.21)*	-
Traditional-Southern							
Cyprus	482	21.4	593	28.6	1.33	(1.11-1.60)	0.603
Spain	927	32.5	958	42.6	1.28	(1.14-1.44)	0.835
Greece	1.189	16.6	1.526	22.7	1.39	(1.19-1.63)	0.677
Portugal	858	33.9	1.292	40.7	1.21	(1.09-1.34)	0.753
*Total**	*3.456*	*30.2*	*4.369*	*38.6*	*1.27*	*(1.19-1.35)*	-
Market-oriented							
Switzerland	772	17.2	734	18.8	1.12	(0.91-1.38)	0.822
United Kingdom	1.057	28.3	1.365	27.9	0.98	(0.86-1.12)	0.790
Ireland	1.189	16.9	1.387	18.5	1.11	(0.92-1.32)	0.722
*Total**	*3.018*	*26.3*	*3.486*	*26.5*	*1.04*	*(0.95-1.15)*	-
Contradictory							
Bulgaria	1.064	26.0	1.370	34.8	1.33	(1.20-1.48)	0.613
Czech Republic	1.190	39.7	1.196	39.3	0.97	(0.88-1.07)	0.664
Estonia	722	52.1	1.071	50.3	0.96	(0.88-1.04)	0.665
Croatia	720	37.9	921	38.0	0.98	(0.87-1.11)	0.618
Hungary	715	45.1	846	50.2	1.09	(1.00-1.20)	0.590
Lithuania	603	48.1	1.074	53.8	1.10	(0.96-1.25)	0.628
Poland	841	37.8	910	41.2	1.08	(0.97-1.21)	0.631
Russian Federation	1.064	58.3	1.531	68.4	1.18	(1.10-1.27)	0.556
Slovenia	651	39.6	750	42.8	1.08	(0.96-1.21)	0.641
Slovakia	717	39.6	1.136	41.1	0.99	(0.86-1.14)	0.663
Ukraine	719	61.6	1.212	67.7	1.12	(1.02-1.22)	0.461
*Total**	*9.006*	*52.0*	*12017.0*	*61.0*	*1.08*	*(1.05-1.11)*	-

*age and country standardised

Table 3. Prevalence ratio (PR) and 95% confidence interval (95%CI) of poor health according to gender (women compared to men) globally and stratifying by other individual social determinants of health, adjusting by age and country in each country typology.

	Dual-earner		Traditional-Central		Traditional-Southern		Market-oriented		Contradictory	
	PR	95%CI	PR	95%CI	PR	95%CI	PR	95%CI	PR	95%CI
	1.05	(0.98-1.14)	1.13	(1.07-1.21)	1.27	(1.19-1.35)	1.04	(0.95-1.15)	1.08	(1.05-1.11)
Age										
15-19	1.45	(0.93-2.26)	1.37	(0.88-2.13)	0.59	(0.22-1.60)	1.09	(0.55-2.16)	1.2	(0.84-1.71)
20-34	1.13	(0.86-1.48)	1.21	(0.99-1.48)	1.04	(0.76-1.43)	1.29	(0.95-1.74)	1.23	(1.08-1.39)
35-49	1.00	(0.83-1.22)	1.09	(0.94-1.26)	1.36	(1.12-1.66)	0.96	(0.78-1.19)	1.11	(1.03-1.20)
50-64	1.07	(0.93-1.22)	1.09	(0.98-1.21)	1.32	(1.16-1.52)	0.9	(0.75-1.07)	1.08	(1.03-1.13)
65+	1.02	(0.92-1.14)	1.18	(1.07-1.29)	1.24	(1.16-1.33)	1.16	(1.00-1.34)	1.02	(0.99-1.06)
Born in low-income country										
No	1.04	(0.96-1.12)	1.14	(1.07-1.22)	1.26	(1.18-1.35)	1.08	(0.97-1.19)	1.09	(1.05-1.12)
Yes	1.44	(0.98-2.12)	1.03	(0.82-1.29)	1.29	(0.91-1.82)	0.7	(0.47-1.05)	1	(0.90-1.11)
Education										
Up to lower secondary	1.09	(0.97-1.22)	1.19	(1.07-1.33)	1.26	(1.18-1.35)	0.99	(0.87-1.13)	1.05	(1.00-1.11)
Upper secondary	1.05	(0.94-1.18)	1.07	(0.99-1.17)	1.14	(0.94-1.39)	1.11	(0.94-1.30)	1.09	(1.04-1.13)
Tertiary	1.01	(0.82-1.24)	1.01	(0.84-1.22)	1.24	(0.95-1.63)	1.07	(0.78-1.46)	1.1	(1.01-1.20)
Cohabiting										
Never married	0.95	(0.82-1.09)	1.07	(0.91-1.25)	1.08	(0.85-1.37)	1.13	(0.93-1.38)	1.04	(0.93-1.15)
Separated/divorced/widowed	0.92	(0.74-1.15)	1.01	(0.89-1.14)	1.10	(0.97-1.24)	1.02	(0.85-1.23)	1.02	(0.96-1.08)
Not married cohabiting	1.20	(0.95-1.51)	1.33	(1.07-1.65)	1.64	(1.18-2.28)	1.09	(0.77-1.54)	1.15	(1.01-1.31)
Married	1.05	(0.94-1.17)	1.12	(1.03-1.22)	1.29	(1.19-1.40)	0.98	(0.85-1.13)	1.1	(1.06-1.15)
Employment status										
Professional paid work	1.02	(0.82-1.28)	1.02	(0.86-1.21)	1.18	(0.86-1.62)	0.80	(0.59-1.10)	1.26	(1.12-1.41)
Service paid work	1.33	(0.94-1.89)	1.29	(1.00-1.65)	1.32	(0.95-1.84)	0.90	(0.62-1.29)	1.24	(1.07-1.43)
Manual paid work	1.08	(0.81-1.43)	1.13	(0.92-1.39)	1.43	(1.15-1.78)	1.43	(0.98-2.10)	1.33	(1.21-1.45)
Student	1.51	(1.07-2.15)	1.15	(0.78-1.68)	1.01	(0.49-2.10)	1.20	(0.68-2.10)	1.13	(0.86-1.49)
Unemployed	1.29	(0.92-1.82)	1.18	(0.91-1.54)	1.22	(0.95-1.56)	0.97	(0.67-1.41)	1.1	(0.97-1.26)
Disabled or retired	1.00	(0.92-1.10)	1.17	(1.09-1.27)	1.29	(1.20-1.39)	1.03	(0.92-1.16)	0.98	(0.95-1.01)
Housework	1.06	(0.41-2.78)	0.96	(0.66-1.39)	1.11	(0.69-1.78)	0.81	(0.48-1.37)	1.28	(0.98-1.68)
Others	0.99	(0.48-2.03)	2.01	(1.11-3.64)	1.15	(0.65-2.04)	1.37	(0.48-3.88)	1.02	(0.64-1.64)

Figure 1. Multilevel associations between gender and self-perceived health in each country typology (PR: prevalence ratios and 95%CI: 95% confidence intervals). Note: *= significantly different from dual-earner (p<0.05).

Figure 1a. Empty model

Figure 1b. Individual variables

Figure 1c. Individual variables + GEM

Figure 1d. Individual variables + GEM + GDP

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